Nutsteel® PRODUCT CATALOG 001



Appleton®

EMERSON™
Industrial Automation


Appleton®
EMERSON™
Industrial Automation

Founded in 1968, Nutsteel is the Brazilian market leader of electrical materials and equipment rated for use in explosive atmospheres.

Because of its rigorous focus on quality management Appleton Grp LLC, a business unit of Emerson Industrial Automation acquired the company in 2010. Previous to this acquisition Nutsteel developed technological partnerships with worldwide recognized companies such as Appleton and ATX (brands of Appleton Grp LLC). Nutsteel has been incorporated into Appleton and now services as Appleton Grp LLC's base of operations for IEC products in Latin America.

For over 150 years, Appleton Grp LLC's electrical product brands have been providing a rich tradition of long-term, practical, high quality solutions with applications ranging from the construction and safe operation of petrochemical and process plants to providing quality power that precisely controls automotive robotic production. Those traditions allow Nutsteel to continue to develop and manufacture products and solutions to meet industrial requirements for safe operation in environments exposed to hazardous gases, fumes and dust.

Fittings, control stations, enclosures, junction boxes, control stations, panelboards, plugs and receptacle and lighting products that are certified to IEC standards to meet the needs of virtually any application, in any type of hazardous environment.

Look to Nutsteel to provide solutions for onshore and offshore markets; bringing together the knowledge, tradition and technology you expect for your projects.

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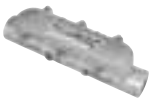
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Fittings

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
NBR IEC Conduit Bodies					
Nutsteel NTCL1 Conduit Outlet Box	4				X
Nutsteel NTTPE Conduit Outlet Box Covers	7				X
Nutsteel NTCIR Conduit Body	10				X
Nutsteel NTCNI 90° Pulling Elbow	11				X
NBR IEC Rigid and IMC Conduit Fittings					
Nutsteel NTUNM Male/Female Union	12				X
Nutsteel NTUNF Female/Female Union	13				X
Nutsteel NTJES and NTJEC Expansion Fittings	14				X
Nutsteel NTARF Lock Nuts	15				X
Nutsteel NTBCF Bushings	16				X
Nutsteel NTBCI Insulated Bushings	17				X
Nutsteel NTBCT Terminal/Grounding Bushings	18				X
Nutsteel NTBCG Insulated Terminal/Grounding Bushings	19				X
Nutsteel NTBCB Threaded Insulating Bushings	20				X
Nutsteel NTBJS Blanking Plugs	21				X
Nutsteel NECP Heavy Duty Conduit Bends	22				X
Nutsteel NTGRU Heavy Duty U Bolts	23				X
Nutsteel NTAUF and NTBAF Nail Clamps	24				X
Nutsteel NTAUR One Hole Click–On Strap	25				X
Nutsteel NTADR Two Hole Click–On Strap	26				X
Nutsteel NTADA Heavy Duty Conduit Hanger	27				X
NTTF Flexible Tubing	28				X


NTCL1


NTTPE


NTCIR


NTCNI


NTUNM


NTUNF


NTJES/NTJEC


NTARF


NTBCF


NTBCI


NTBCT


NTBCG


NTBCB


NTBJS


NECP


NTGRU


NTAUF/NTBAF


NTADR


NTADA


NTTF

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Fittings

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
NEC/CEC Class/Zone and ATEX/IEC/NBR IEC Zone 1 Rated Cable Glands					
Cable Gland Selection Guide	30	X	X	X	X
Ex e Series Polyamide Cable Glands	31			X	X
A2F Series Nickel Plated Brass Cable Glands	32		X	X	X
A2FRC Series Nickel Plated Brass Cable Glands	34				X
T3 Series Nickel Plated Brass Cable Gland	36	X	X	x	X
PXSS2K Series Compound Barrier Type Cable Connector	38	X	X	x	X
PXSS2K–REX Series Liquid Resin Barrier Type Cable Connector	40	X	X	x	X
PX2K Series Nickel Plated Brass Cable Glands	42	X	X	X	X
E1FX Series Nickel Plated Brass Cable Gland	44			X	X
E1FW Series Nickel Plated Brass Cable Gland	46			X	X
Cable Gland Accessories: Nutsteel NEBJS Series Stopper Plugs	48				X
Cable Gland Accessories: Nutsteel NEBJL Series Stopper Plugs	49				X
Nutsteel NTPC Cable Glands	50				X
NBR IEC Zone Rated Hazardous Location Conduit Outlet Bodies and Boxes					
Nutsteel NECL1 Conduit Outlet Box	51				X
Nutsteel NECIR Conduit Outlet Body Inspection Cover	55				X
Nutsteel NECNI 90° Pulling Elbow	56				X
ATEX/IEC/NBR IEC Zone 1 Conduit Fittings					
Nutsteel NEUND Male/Male Unions	57				X
Nutsteel NEUNM Male/Female Unions	58				X
Nutsteel NEUNF Female/Female Unions	59				X
Nutsteel NECNL 90° Elbow	60				X
Nutsteel NEBR Reducing Bushing	61				X
Nutsteel NELR Reducing Coupling	62				X
Nutsteel NERD Threaded Reducer	63				X
Nutsteel NEAR Threaded Adapter	66				X
Nutsteel NETF Flexible Conduit	68				X
Nutsteel NETI Flexible Conduit	70				X
Nutsteel NENIC Short Nipple	72				X
Nutsteel NENIL Long Nipple	73				X
Nutsteel NELVP One Piece Conduit Coupling Sleeve	74				X
Nutsteel NETCA End Cap	75				X
Nutsteel NEELP Heavy Duty Conduit	76				X



Ex e



A2F



A2FRC



T3



PXSS2K



E1FX/E1FW



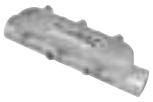
Stopper Plugs



NTPC



NECL1



NECIR



NECNI



NEUND



NEUNM



NEUNF



NECNL



NEBR



NELR



NERD



NEAR



NETF/NETI



NENIC



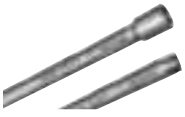
NENIL



NELVP



NETCA



NEELP

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Fittings

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
ATEX/IECEx/NBR IEC Flameproof Zone 1Rated Sealing Fittings					
Nutsteel NESMF Sealing Fittings	77				X
Nutsteel NESMM Sealing Fittings	78				X
Nutsteel NEMS Sealing Compound and NEFI Fiber Fill	79				X
NBR IEC Anti–Oxide Composite					
Nutsteel Gapsteel® NTGST	80				X
Nutsteel Threadsteel® NTTST	81				X
Drain and Breathers					
Nutsteel NTDRE Drain and Breather	82				X
NBR IEC Service Entrance Fittings					
Nutsteel NTENL Service Entrance Cap	83				X



NESMF



NESMM



NEMS



NEFI



NTGST



NTTST



NTDRE



NTENL

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Controls

Description	Page	NEC	CEC	ATEX / IEC	NBR IEC
ATEX/IECEx/NBR IEC Increased Safety Ex e Control Stations and Switches					
Unicode® 2 Series Control Stations and Switches	90			X	X
Unicode® 2 Series Polyamide Control Stations	106			X	X
Unicode® 2 Series Customized Control Stations	116			X	X
Unicode® 2 Series Pre–Drilled Control Stations	128			X	X
Unicode® 2 Series Accessories	137			X	X
ATX FU40 Series ATEX Fuse Carrier	162			X	X
ATEX/IECEx/NBR IEC Flameproof Ex d Zone 1 Rated Control Stations and Switches					
ATX D Series Aluminum Control Stations	163			X	X
NBR IEC Zone Rated Hazardous Location Control Stations and Switches					
Nutsteel NECCS Series Pre–Drilled Aluminum Control Stations	167				X
Nutsteel NEBC Push Button Emergency Stop Control Station	171				X
Nutsteel NETPE, NETPL, NECM Modular Control Stations	180				X
Nutsteel NECS Series Ex d Control Operators	185				X
Nutsteel NEBVO Voltmeter and NEBAM Ammeter	189				X
Nutsteel NEFC Electric Photocontrol	191				X
NBR IEC Weatherproof Control Stations and Switches					
Nutsteel NTCCS Enclosure for Controls and Indicator Lights	192				X
Nutsteel NTIN Control Station	195				X
Nutsteel NTVO Voltmeter and NTAM Ammeter	197				X
ATEX/IECEx/NBR IEC Increased Safety Ex e/Flameproof Ex d Zone 1 Rated Call Points Stations and Audio Signaling Devices					
ATX SWE Series 16 and 20 Amp	198			X	X
ATX SWE Series 40, 63 and 160 Amp	201			X	X
Nutsteel NESET Electronic Siren	205				X
NBR IEC Class/Zone Rated Motor Starters					
Nutsteel NEPPS Motor Starters	208				X
Nutsteel NEPPM Motor Starters	210				X
NEC/CEC/NBR IEC Indicators and Grounding Devices					
Nutsteel NEBLD Digital Ground Controller	214				X
SD Series Static Discharge Grounding Reelites	217	X	X		X
ATEX/IECEx Increased Safety Ex e Zone 1 Rated Control Transformers					
ATX TRE Series Ex e Transformers	220			X	X





Stock, Custon, Pre–Drilled Unicode® 2 **Polyester Unicode® 2**





FU40 **D Series** **NECCS**





NEBC **NETPE/NETPL/NECM** **NECS**





NEBVO/NEBAM **NEFC** **NTCCS**



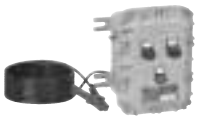


NTIN **NTVO/NTAM** **SWE**





NESET **NEPPS** **NEPPM**





NEBLD **SD** **TRE**

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Enclosures and Junction Boxes

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
NBR IEC Zone Rated Hazardous Location Outlet Boxes					
Nutsteel NECL3 Conduit Outlet Box	226				X
Nutsteel NECL325 Conduit Outlet Box with Window	229				X
Nutsteel NEJC Junction Box	230				X
ATEX/IECEx/NBR IEC Increased Safety Ex e Zone 1 Rated Junction Boxes					
ATX JBEL Series Polycarbonite Junction Boxes	232			X	X
NJBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes	235			X	X
NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Instrumentation Applications	246			X	X
NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Electrical and Power Applications	253			X	X
ATX JBES Series Pre–Drilled 316L Stainless Steel Junction Boxes	280			X	X
ATX JBES and ECES Series 316L Stainless Steel Enclosures	284			X	X
Nutsteel NAJQ Junction Box	295				X
Nutsteel NACAJ Junction Box	300				X
ATEX/IECEx/NBR IEC Flameproof Ex d Zone 1 Rated Junction Boxes					
ATX ECDX Series Customized Welded Steel/Stainless Steel Enclosures	302			X	X
Nutsteel NECM1 Junction Box	306				X
Nutsteel NECM2 Series Customized Enclosures	312				X
Nutsteel NEJQ Junction Box	317				X
NBR IEC Weatherproof Junction and Outlet Boxes					
Nutsteel NTJC Junction Box	321				X
Nutsteel NTCL2 Small Round Conduit Outlet Box	322				X
Nutsteel NTCM1 Junction Box	326				X
Nutsteel NTCM2 Junction Box	331				X
Nutsteel NTCM3 Pull Box with Drain/Breather	334				X
Nutsteel NTCM4 Floor Box	336				X
Nutsteel NTJQ Junction Box	339				X


NECL3/NECL325


NEJC


JBEL


NJBEP Undrilled


NJBEP Instrumentation


NJBEP Electrical/Power


JBES


JBES/ECES


NAJQ


NACAJ


ECDX


NECM1


NECM2


NEJQ


NTJC


NTCL2


NTCM1


NTCM2


NTCM3


NTCM4


NTJQ

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Distribution Equipment

Description	Page	NEC	CEC	ATEX / IEC	NBR IEC
ATEX/IECEx/NBR IEC Increased Safety Ex e/Flameproof Ex d Zone 1 Rated Circuit Breakers					
ATX CBU and SWU Series Branch Circuit Breakers and Switches	346			X	X
NBR IEC Zone 1 Rated Hazardous and Ordinary Location Circuit Breakers and Switches					
Nutsteel NEDJ Circuit Breaker	350				X
Nutsteel NEIN Switch	360				X
Nutsteel NTDJ Circuit Breaker	365				X
NBR IEC Zone 1 Rated Hazardous Location Panelboards					
Nutsteel NEPAC Distribution, Power and Protection Panelboard	370				X
Nutsteel NEPAD Distribution, Power and Protection Panelboard	376				X
NBR IEC Switchracks					
Nutsteel Custom Switchracks	380				X



CBU/SWU



NEDJ/NEIN



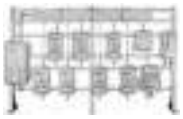
NTDJ



NEPAC



NEPAD



Switchracks

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Plugs and Receptacles

Description	Page	NEC	CEC	ATEX / IEC	NBR IEC
ATEX/IECEx/NBR IEC Increased Safety Ex e Zone 1 Rated Plugs and Receptacles					
PRE Series 16 Amp Plugs and Receptacles: Increased Safety	386			X	X
PRE Series 32 Amp Plugs and Receptacles: Increased Safety	391			X	X
PRE Series 63 Amp Plugs and Receptacles: Increased Safety	395			X	X
PRE Series 125 Amp Plugs and Receptacles: Increased Safety	400			X	X
MRE Series 16 and 32 A Multiple Socket Outlets: Increased Safety	405			X	X



Série PRE



Série MRE

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Lighting

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
NEC/CEC Enclosed and Gasketed Class/Zone and/or IEC Zone 2 Rated — Area — LED					
Mercmaster™ LED Series Luminaires	420	X	X		X
NEC/CEC Enclosed and Gasketed Class/Zone and ATEX/IEC Rated — Floodlight — LED					
Areamaster LED Flood/High Bay Floodlights	440	X	X		X
ATEX/IEC/NBR IEC Increased Safety/Flameproof — Bulkhead — LED					
ATX FDBAES LED Series Self–Contained Emergency	449			X	X
ATX FNES LED Series Self–Contained Emergency Lighting with Self–Test System	454			X	X
NBR IEC Zone 2 Rated — Area — HID					
Nutsteel NR850–N Series Luminaires	457				X
Nutsteel NN850–N Series Luminaires	467				X
Nutsteel NN800–N Series Luminaires	477				X
ATEX/IEC/NBR IEC Zone 1 Rated — Area — HID					
Nutsteel NE850 Series Luminaires	485				X
ATEX/IEC Zone 2 Rated — Floodlight — HID					
ATX Areamaster ATEX PN Series Floodlights	493			X	X
NBR IEC IP65 Rated — Floodlight — HID					
Nutsteel NT450 Series Floodlights	499				X
Nutsteel NT950 Series Floodllights	502				X
Nutsteel NT400 Series Floodllights	503				X
Nutsteel NT410 Series Long Range Floodlights	505				X
ATEX/IEC/NBR IEC Zone 1 Rated — Floodlight — HID					
ATX PC Series Floodlights	507			X	X
Nutsteel NE450 Series Floodlights	512				X
Nutsteel NE400 Series Floodlights	517				X
Industrial Lighting — Area — HID					
Nutsteel NT850–N Series Luminaires	520				X
Nutsteel NT800–N Series Luminaires	531				X



LED Mercmaster



LED Areamaster



FDBAES



FNES



NR/NN850



NN800



NE850



PN



NT450



NT950



NT400



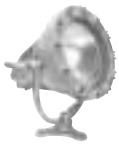
NT410



PC



NE450



NE400



NT850



NT800

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Lighting

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
Industrial Lighting — Area — Roadway — HID					
Nutsteel NT952 Series Outdoor Fixtures	539				X
Nutsteel NT951 Series Outdoor Fixtures	540				X
General Lighting — Area — High Bay — HID					
Nutsteel NT350A Series Luminaires	541				X
Nutsteel NT350A–Y Series Luminaires	547				X
ATEX/IEC/NBR IEC Zone 2 Rated — Area — Fluorescent					
ATX FN Series Heavy Duty Nonmetallic Fluorescent Luminaires	550			X	X
Nutsteel NN850–N Series Luminaires	557				X
ATEX/IEC/NBR IEC Zone 2 Rated — Area — Recessed Fluorescent					
ATX RE Series Recessed and Surface Mounting Fluorescent Luminaires	563			X	X
ATEX/IEC/NBR IEC Zone 1 Rated — Area — Fluorescent					
ATX FD Series Cylindrical Fluorescent Luminaires	572			X	X
ATX FE Series Nonmetallic Fluorescent Luminaires	579				X
ATEX/IEC/NBR IEC Zone 1 Rated — Emergency — Fluorescent					
ATX FDES Series Self–Contained Emergency	593			X	X
Nutsteel NE851 Series Emergency Luminaires	597				X
Industrial Lighting — Area — Architectural — Fluorescent					
Nutsteel NT850–N Series Luminaires	603				X
NBR IEC IP65 Rated — Area — Incandescent					
Nutsteel NT700 Series Industrial Luminaires	609				X
ATEX/IEC/NBR IEC Zone 2 Rated — Emergency — Incandescent					
ATX ELS Series Self–Contained Emergency Lighting Unit	610			X	X
ATEX/IEC/NBR IEC Increased Safety/Flameproof — Bulkhead — Incandescent/HID					
ATX HBD Series Bulkhead Luminaires	612			X	X
ATX HBN Series Round Bulkhead Luminaires	616			X	X
ATX HBDC Series Cylindrical Bulkhead Luminaires	618			X	X



NT952



NT951



NT350A/NT350A–Y



FN



NN850



RE



FD



FE



FDES



NE851



NT850



NT700



ELS



HBDO



HBN



HBDC

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Lighting

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
ATEX/IEC/NBR IEC Zone 1 Rated — Portable — Incandescent/Halogen					
ATX TCH Series Safety Flashlights	622			X	X
NBR IEC Zone 1 Rated — Area — Mixed					
Nutsteel NE800 Series Luminaires	625				X
NBR IEC Zone 1 Rated — Portable — Mixed					
Nutsteel NE500 Series Handlamps	632				X
ATEX/IEC(Ex)/NBR IEC Zone 1 Rated — Visual Signal					
ATX SBDO Series Signaling and Lighting Bulkheads	636			X	X
ATX SBDS Series Beacon Lighting Units	638			X	X
ATX SBDB Series Beacon and Strobe Lighting Units	640			X	X
ATX SBDC Series Strobe Lighting and Static Triple Indicator	644			X	X
Labels for Emergency Lighting Units					
ATX Self–Adhesive Signaling Labels for Emergency Lighting Units	647			X	X
Ordinary Location — Flexible Fixture Hangers					
Nutsteel NTSUS2 Series Articulated Mount	648				X
Nutsteel NTSUS1 Series Anti–Vibration Mount	649				X
Temporary Lighting					
Nutsteel NT500 Series Portable Luminaires	650				X



TCH



NE800



NE500



SBDO



SBDS



SBDB



SBDC



Etiquetas



NTSUS1



NTSUS2



NT500

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Nutsteel fittings keep the power flowing, your people safe, and last for decades. If the air is filled with flammable vapors, dusts and other dangers, selecting the correct fitting is a must. This is not the place to cut corners.







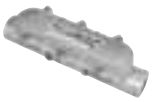
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NBR IEC Conduit Bodies					
Nutsteel NTCL1 Conduit Outlet Box	4				X
Nutsteel NTTPE Conduit Outlet Box Covers	7				X
Nutsteel NTCIR Conduit Body	10				X
Nutsteel NTCNI 90° Pulling Elbow	11				X
NBR IEC Rigid and IMC Conduit Fittings					
Nutsteel NTUNM Male/Female Union	12				X
Nutsteel NTUNF Female/Female Union	13				X
Nutsteel NTJES and NTJEC Expansion Fittings	14				X
Nutsteel NTARF Lock Nuts	15				X
Nutsteel NTBCF Bushings	16				X
Nutsteel NTBCI Insulated Bushings	17				X
Nutsteel NTBCT Terminal/Grounding Bushings	18				X
Nutsteel NTBCG Insulated Terminal/Grounding Bushings	19				X
Nutsteel NTBCB Threaded Insulating Bushings	20				X
Nutsteel NTBJS Blanking Plugs	21				X
Nutsteel NECP Heavy Duty Conduit Bends	22				X
Nutsteel NTGRU Heavy Duty U Bolts	23				X
Nutsteel NTAUF and NTBAF Nail Clamps	24				X
Nutsteel NTAUR One Hole Click–On Strap	25				X
Nutsteel NTADR Two Hole Click–On Strap	26				X
Nutsteel NTADA Heavy Duty Conduit Hanger	27				X
NTTF Flexible Tubing	28				X


NTCL1


NTTPE


NTCIR


NTCNI


NTUNM


NTUNF


NTJES/NTJEC


NTARF


NTBCF


NTBCI


NTBCT


NTBCG


NTBCB


NTBJS


NECP


NTGRU


NTAUF/NTBAF


NTADR


NTADA


NTTF

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NEC/CEC Class/Zone and ATEX/IEC/NBR IEC Zone 1 Rated Cable Glands					
Cable Gland Selection Guide	30	X	X	X	X
Ex e Series Polyamide Cable Glands	31			X	X
A2F Series Nickel Plated Brass Cable Glands	32		X	X	X
A2FRC Series Nickel Plated Brass Cable Glands	34				X
T3 Series Nickel Plated Brass Cable Gland	36	X	X	x	X
PXSS2K Series Compound Barrier Type Cable Connector	38	X	X	x	X
PXSS2K–REX Series Liquid Resin Barrier Type Cable Connector	40	X	X	x	X
PX2K Series Nickel Plated Brass Cable Glands	42	X	X	X	X
E1FX Series Nickel Plated Brass Cable Gland	44			X	X
E1FW Series Nickel Plated Brass Cable Gland	46			X	X
Cable Gland Accessories: Nutsteel NEBJS Series Stopper Plugs	48				X
Cable Gland Accessories: Nutsteel NEBJL Series Stopper Plugs	49				X
Nutsteel NTPC Cable Glands	50				X
NBR IEC Zone Rated Hazardous Location Conduit Outlet Bodies and Boxes					
Nutsteel NECL1 Conduit Outlet Box	51				X
Nutsteel NECIR Conduit Outlet Body Inspection Cover	55				X
Nutsteel NECNI 90° Pulling Elbow	56				X
ATEX/IEC/NBR IEC Zone 1 Conduit Fittings					
Nutsteel NEUND Male/Male Unions	57				X
Nutsteel NEUNM Male/Female Unions	58				X
Nutsteel NEUNF Female/Female Unions	59				X
Nutsteel NECNL 90° Elbow	60				X
Nutsteel NEBR Reducing Bushing	61				X
Nutsteel NELR Reducing Coupling	62				X
Nutsteel NERD Threaded Reducer	63				X
Nutsteel NEAR Threaded Adapter	66				X
Nutsteel NETF Flexible Conduit	68				X
Nutsteel NETI Flexible Conduit	70				X
Nutsteel NENIC Short Nipple	72				X
Nutsteel NENIL Long Nipple	73				X
Nutsteel NELVP One Piece Conduit Coupling Sleeve	74				X
Nutsteel NETCA End Cap	75				X
Nutsteel NEELP Heavy Duty Conduit	76				X



Ex e



A2F



A2FRC



T3



PXSS2K



E1FX/E1FW



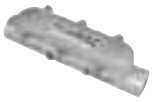
Stopper Plugs



NTPC



NECL1



NECIR



NECNI



NEUND



NEUNM



NEUNF



NECNL



NEBR



NELR



NERD



NEAR



NETF/NETI



NENIC



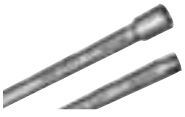
NENIL



NELVP



NETCA



NEELP

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Fittings

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
ATEX/IECEx/NBR IEC Flameproof Zone 1Rated Sealing Fittings					
Nutsteel NESMF Sealing Fittings	77				X
Nutsteel NESMM Sealing Fittings	78				X
Nutsteel NEMS Sealing Compound and NEFI Fiber Fill	79				X
NBR IEC Anti–Oxide Composite					
Nutsteel Gapsteel® NTGST	80				X
Nutsteel Threadsteel® NTTST	81				X
Drain and Breathers					
Nutsteel NTDRE Drain and Breather	82				X
NBR IEC Service Entrance Fittings					
Nutsteel NTENL Service Entrance Cap	83				X



NESMF



NESMM



NEMS



NEFI



NTGST



NTTST



NTDRE



NTENL

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Nutsteel® NTCL1 Conduit Outlet Box

For use with threaded rigid metal conduit and IMC

NBR IEC:
IP54



Applications

- Serve as pulling fittings.
- Make bends in conduit system.
- Provide openings for splicing.
- Connect and change direction of conduit runs.
- Allow connections for branch runs.
- Permit access to conductors for maintenance.

Features

- Robust construction, with a high level of corrosion resistance.
- The conduit bodies are provided with blank cover, sealing gasket and screws.
- NPT threads standard.

Standard Materials

- Body: copperfree cast aluminum alloy
- Cover: Ø 1/2" to Ø 2" sheet aluminum, Ø 2-1/2" to Ø 4" cast aluminum
- Sealing Gasket: neoprene
- Fixing screws (2): stainless steel AISI 304

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

Options

- For BSP threads: for E, C, T, X and multi gang boxes, replace the letter **N**, with the letter **B** in the 11th position, e.i. NTCL110C01**B**; for LL, LR, LB and TB boxes, replace the letter **N**, with the letter **B** in the 12th position, e.i. NTCL110LL01**B**.
- To order a conduit out box with no cover and gasket add the letter **K** at the end of the catalog number; example: NTCL110LL01N**K**.

NBR IEC Certifications and Compliances

- Ingress Protection: IP54
- Standards: ABNT NBR 15701, ABNT NBR IEC 60529 (IP)

Related Products

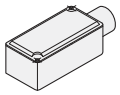
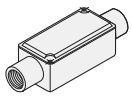
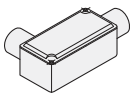
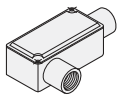
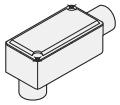
- For additional style covers with gasket see *NTTPE Conduit Outlet Box Covers*.
- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.

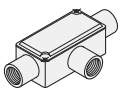
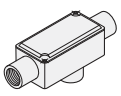
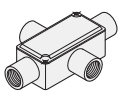
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Nutsteel® NTCL1 Conduit Outlet Box

For use with threaded rigid metal conduit and IMC

NBR IEC:
IP54

	Ø NPT Thread	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①②
E 	1/2”	0.24 (0.53)	0.27 (16.48)	**NTCL110E-01N**
	3/4”	0.35 (0.78)	0.36 (21.97)	**NTCL110E-02N**
	1”	0.42 (0.93)	0.49 (29.90)	**NTCL110E-03N**
	1-1/4"	0.55 (1.21)	0.70 (42.7)	**NTCL110E-04N**
	1-1/2"	0.61 (1.34)	1.03 (62.90)	**NTCL110E-05N**
	2”	0.78 (1.72)	1.67 (101.9)	**NTCL110E-06N**
	2-1/2"	2.08 (4.59)	2.79 (170.3)	**NTCL110E-07N**
	3”	2.05 (4.52)	4.30 (262.4)	**NTCL110E-08N**
	3-1/2"	3.95 (8.71)	6.62 (404.0)	**NTCL110E-09N**
	4”	3.71 (8.18)	6.62 (404.0)	**NTCL110E-10N**
C 	1/2”	0.28 (0.61)	0.29 (17.70)	**NTCL110C-01N**
	3/4”	0.36 (0.80)	0.38 (23.19)	**NTCL110C-02N**
	1”	0.44 (0.97)	0.52 (31.73)	**NTCL110C-03N**
	1-1/4"	0.50 (1.10)	0.81 (49.40)	**NTCL110C-04N**
	1-1/2"	0.67 (1.48)	1.17 (71.40)	**NTCL110C-05N**
	2”	0.97 (2.14)	1.90 (115.9)	**NTCL110C-06N**
	2-1/2"	1.98 (4.37)	3.22 (196.5)	**NTCL110C-07N**
	3”	2.45 (5.40)	4.91 (299.6)	**NTCL110C-08N**
	3-1/2"	4.28 (9.44)	7.51 (458.3)	**NTCL110C-09N**
	4”	3.50 (7.72)	7.51 (458.3)	**NTCL110C-10N**
LL 	1/2”	0.28 (0.61)	0.29 (17.70)	**NTCL110LL01N**
	3/4”	0.38 (0.83)	0.38 (23.19)	**NTCL110LL02N**
	1”	0.46 (1.02)	0.52 (31.73)	**NTCL110LL03N**
	1-1/4"	0.51 (1.12)	0.99 (60.40)	**NTCL110LL04N**
	1-1/2"	0.62 (1.37)	1.43 (87.30)	**NTCL110LL05N**
	2”	0.92 (2.03)	2.21 (134.9)	**NTCL110LL06N**
	2-1/2"	1.97 (4.34)	3.89 (237.4)	**NTCL110LL07N**
	3”	2.36 (5.20)	5.71 (348.4)	**NTCL110LL08N**
	3-1/2"	4.25 (9.37)	8.82 (538.2)	**NTCL110LL09N**
	4”	3.50 (7.72)	8.82 (538.2)	**NTCL110LL10N**
LR 	1/2”	0.28 (0.61)	0.29 (17.70)	**NTCL110LR01N**
	3/4”	0.38 (0.83)	0.38 (23.19)	**NTCL110LR02N**
	1”	0.47 (1.03)	0.52 (31.73)	**NTCL110LR03N**
	1-1/4"	0.50 (1.10)	0.99 (60.40)	**NTCL110LR04N**
	1-1/2"	0.60 (1.32)	1.43 (87.30)	**NTCL110LR05N**
	2”	0.89 (1.96)	2.21 (134.9)	**NTCL110LR06N**
	2-1/2"	2.60 (5.73)	3.89 (237.4)	**NTCL110LR07N**
	3”	2.36 (5.20)	5.71 (348.4)	**NTCL110LR08N**
	3-1/2"	4.38 (9.66)	8.82 (538.2)	**NTCL110LR09N**
	4”	3.58 (7.89)	8.82 (538.2)	**NTCL110LR10N**
LB 	1/2”	0.28 (0.61)	0.29 (17.70)	**NTCL110LB01N**
	3/4”	0.36 (0.80)	0.38 (23.19)	**NTCL110LB02N**
	1”	0.47 (1.03)	0.52 (31.73)	**NTCL110LB03N**
	1-1/4"	0.52 (1.15)	0.97 (59.20)	**NTCL110LB04N**
	1-1/2"	0.64 (1.41)	1.36 (83.00)	**NTCL110LB05N**
	2”	0.92 (2.03)	2.17 (132.4)	**NTCL110LB06N**
	2-1/2"	2.06 (4.54)	3.81 (232.5)	**NTCL110LB07N**
	3”	2.60 (5.73)	5.67 (346.0)	**NTCL110LB08N**
	3-1/2"	4.38 (9.66)	8.25 (503.4)	**NTCL110LB09N**
	4”	3.75 (8.27)	8.25 (503.4)	**NTCL110LB10N**

	Ø NPT Thread	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①②
T 	1/2”	0.31 (0.68)	0.30 (18.31)	**NTCL110T-01N**
	3/4”	0.40 (0.87)	0.40 (24.41)	**NTCL110T-02N**
	1”	0.48 (1.05)	0.56 (34.17)	**NTCL110T-03N**
	1-1/4"	0.49 (1.08)	1.13 (69.00)	**NTCL110T-04N**
	1-1/2"	0.85 (1.87)	1.63 (99.50)	**NTCL110T-05N**
	2”	1.06 (2.34)	2.50 (152.6)	**NTCL110T-06N**
	2-1/2"	2.40 (5.29)	4.48 (273.4)	**NTCL110T-07N**
	3”	2.42 (5.34)	6.53 (398.5)	**NTCL110T-08N**
	3-1/2"	4.65 (10.25)	10.01 (610.8)	**NTCL110T-09N**
	4”	3.88 (8.55)	10.01 (610.8)	**NTCL110T-10N**
TB 	1/2”	0.32 (0.71)	0.30 (18.31)	**NTCL110TB01N**
	3/4”	0.41 (0.89)	0.40 (24.41)	**NTCL110TB02N**
	1”	0.49 (1.07)	0.56 (34.17)	**NTCL110TB03N**
	1-1/4"	0.57 (1.26)	1.11 (67.70)	**NTCL110TB04N**
	1-1/2"	0.70 (1.54)	1.55 (94.60)	**NTCL110TB05N**
	2”	1.17 (2.58)	2.46 (150.1)	**NTCL110TB06N**
	2-1/2"	2.34 (5.16)	4.39 (267.9)	**NTCL110TB07N**
	3”	2.50 (5.51)	6.48 (395.4)	**NTCL110TB08N**
	3-1/2"	4.63 (10.21)	9.36 (571.2)	**NTCL110TB09N**
	4”	3.92 (8.64)	9.36 (571.2)	**NTCL110TB10N**
X 	1/2”	0.35 (0.78)	0.32 (19.53)	**NTCL110X-01N**
	3/4”	0.44 (0.97)	0.43 (26.24)	**NTCL110X-02N**
	1”	0.51 (1.13)	0.60 (36.61)	**NTCL110X-03N**
	1-1/4"	0.63 (1.39)	1.46 (89.10)	**NTCL110X-04N**
	1-1/2"	1.03 (2.27)	2.09 (127.5)	**NTCL110X-05N**
	2”	1.28 (2.82)	3.11 (189.8)	**NTCL110X-06N**
	2-1/2"	2.28 (5.03)	5.74 (350.3)	**NTCL110X-07N**
	3”	2.91 (6.42)	8.14 (496.7)	**NTCL110X-08N**
	3-1/2"	5.95 (13.12)	12.51 (763.4)	**NTCL110X-09N**
	4”	4.33 (9.55)	12.51 (763.4)	**NTCL110X-10N**

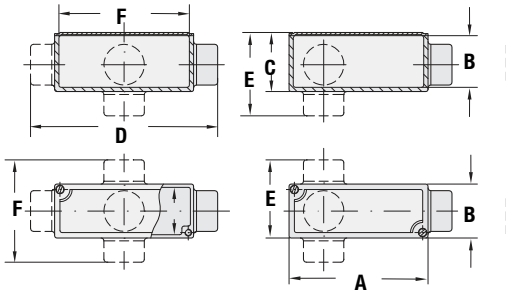
*① For BSP threads: for E, C, T, X and multi gang boxes, replace the letter **N**, with the letter **B** in the 11th position, e.i. NTCL110C01**B**; for LL, LR, LB and TB boxes, replace the letter **N**, with the letter **B** in the 12th position, e.i. NTCL110LL01**B**.*
*② To order a body with no cover and gasket, add the letter **K** at the end of the catalog number, i.e. NTCL110LL01N**K**.*

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Nutsteel® NTCL1 Conduit Outlet Box

For use with threaded rigid metal conduit and IMC

Dimensions in Millimeters (Inches)



Conduit Body	Ø Thread	Dimensions mm (in) A	B	C	D	E	F
Single	1/2”	102 (4.02)	54 (1.61)	47 (1.85)	148 (5.67)	70 (2.68)	93 (3.66)
	3/4”	117 (4.61)	55.5 (1.89)	52 (2.09)	171 (6.18)	79 (2.87)	110 (4.33)
	1”	131 (5.20)	58 (1.97)	60 (2.36)	189 (7.09)	89 (3.31)	124 (4.88)
	1-1/4”	145 (5.71)	62 (2.44)	67 (2.64)	195 (7.68)	92 (3.62)	137 (5.39)
	1-1/2”	157 (6.18)	72 (2.83)	79 (3.11)	207 (8.15)	104 (4.09)	149 (5.87)
	2”	182 (7.17)	85 (3.35)	94 (3.70)	238 (9.37)	122 (4.80)	172 (6.77)
	2-1/2”	222 (8.74)	97 (3.82)	110 (4.33)	302 (11.89)	150 (5.91)	210 (8.27)
	3”	240 (9.45)	122 (4.80)	126 (4.96)	320 (12.60)	166 (6.54)	228 (8.98)
	3-1/2”	283 (11.14)	135 (5.31)	150 (5.91)	371 (14.61)	187 (7.36)	267 (10.51)
	4”	283 (11.14)	135 (5.31)	150 (5.91)	371 (14.61)	187 (7.36)	267 (10.51)
Double	1/2” and 3/4”	118 (4.65)	97 (3.82)	58 (2.28)	160 (6.30)	–	110 (4.33)
Triple	1/2” and 3/4”	118 (4.65)	142 (5.59)	52 (2.05)	160 (6.30)	–	110 (4.33)

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Nutsteel® NTTPE Conduit Outlet Box Covers

For Use with NTCL1 Conduit Outlet Boxes

Applications

- Suitable for use on Nutsteel NTCL1 conduit outlet bodies sizes Ø 3/4”and Ø 1” (single, double, triple, E, C, LL, LR, LB, T, X).

Features

- Covers: simple switch, bell push button, single switch, parallel switch, intermediate switch, toggle switch, brazilian standard, phone jack, computer socket, push button and ring.

Standard Materials

- Cover: sheet aluminum
- Sealing Gasket: Neoprene

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

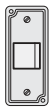
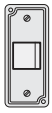
Options

- To make a complete conduit out box, select the appropriate cover and add the NTCL1 outlet box catalog number. Add the letter **K** at the end of the NTCL1 catalog number to receive the box less cover and gasket; example: NTTPE2101 + NTCL110LL01N**K**.

NBR IEC Certifications and Compliances

- Standards: ABNT NBR 14136 (Sockets and Plugs)



	Description	Ø Conduit	Catalog Number
	1 simple switch Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2101** **NTTPE3101**
	1 simple switch Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2102** **NTTPE3102**
	Bell push button Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2801** **NTTPE3801**
	Single pole switch Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2104** **NTTPE3104**
	Single pole switch Current: 25 Amp Voltage: 250 V	3/4” 1”	**NTTPE2106** **NTTPE3106**
	Parallel pole switch Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2105** **NTTPE3105**

	Description	Ø Conduit	Catalog Number
	Intermediate switch Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2103** **NTTPE3103**
	2 simple switches Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2107** **NTTPE3107**
	1 simple switch + 1 parallel switch Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2108** **NTTPE3108**
	Two parallel switches Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2109** **NTTPE3109**
	2 simple switches Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2110** **NTTPE3110**
	1 simple switch + 1 parallel switch Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2111** **NTTPE3111**

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Nutsteel® NTTPE Conduit Outlet Box Covers

For Use with NTCL1 Conduit Outlet Boxes

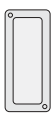
	Description	Ø Conduit	Catalog Number
	Two parallel switches Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2112** **NTTPE3112**
	3 simple switches Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2113** **NTTPE3113**
	2 simple switches + 1 parallel switch Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2114** **NTTPE3114**
	1 simple switch + 2 parallel switches Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2115** **NTTPE3115**
	3 parallel switches Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2116** **NTTPE3116**
	1 simple switch + 1 Brazilian standard receptacle 2P + T universal Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2201** **NTTPE3201**
	1 parallel switch + 1 Brazilian standard receptacle 2P + T universal Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2202** **NTTPE3202**
	2 simple switches + 1 Brazilian standard receptacle 2P + T universal Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2203** **NTTPE3203**
	1 simple switch + 1 parallel switch + 1 Brazilian standard receptacle 2P + T universal Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2204** **NTTPE3204**

	Description	Ø Conduit	Catalog Number
	Two parallel switches + 1 Brazilian standard receptacle 2P Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2205** **NTTPE3205**
	1 toggle switch Current: 10 Amp Nominal voltage: 250 V	3/4” 1”	**NTTPE2401** **NTTPE3401**
	1 2-way toggle switch Current: 10 Amp Nominal voltage: 250 V	3/4” 1”	**NTTPE2402** **NTTPE3402**
	1 3-way toggle switch Current: 10 Amp Nominal voltage: 250 V	3/4” 1”	**NTTPE2403** **NTTPE3403**
	1 toggle switch Current: 30 Amp Nominal voltage: 250 V	1”	**NTTPE3404**
	1 toggle switch Current: 20 Amp Nominal voltage: 250 V	1”	**NTTPE3405**
	1 Brazilian standard receptacle 2P + T universal Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2302** **NTTPE3302**
	1 Brazilian standard receptacle 2P + T universal Current: 20 Amp Voltage: 250 V	3/4” 1”	**NTTPE2310** **NTTPE3310**
	2 Brazilian standard receptacle 2P + T universal Current: 10 Amp Voltage: 250 V	3/4” 1”	**NTTPE2303** **NTTPE3303**

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NTTPE Conduit Outlet Box Covers

For Use with NTCL1 Conduit Outlet Boxes

	Description	Ø Conduit	Catalog Number
	1 standard 4P phone jack	1”	**NTTPE3503**
	1 standard 4P phone jack + 1 RJ11 phone jack adapter	3/4”	**NTTPE2504**
		1”	**NTTPE3504**
	1 RJ11 phone jack	3/4”	**NTTPE2501**
		1”	**NTTPE3501**
	1 RJ45 computer receptacle	3/4”	**NTTPE2502**
		1”	**NTTPE3502**
	1 green push button 1NA + 1 red push button 1NF Current: 10 Amp Voltage: 600 V	1”	**NTTPE3601**
	1 green push button 1NA + 1 red push button 1NF + 1 yellow indicator light + Current: 10 Amp Voltage: 600 V Lamp power: 120 V	1”	**NTTPE3701**
	1 green push button 1NA + 1 red push button 1NF + 1 yellow indicator light + Current: 10 Amp Voltage: 600 V Lamp power: 240 V	1”	**NTTPE3702**
	Ring/buzzer Voltage: 250 V	3/4”	**NTTPE2803**
		1”	**NTTPE3803**
	Ring/buzzer Voltage: 127 V	3/4”	**NTTPE2802**
		1”	**NTTPE3802**
	Neoprene gasket Provided with the lids	3/4”	**NTJCN02**
		1”	**NTJCN03**

Cover	Description	Ø Conduit	Catalog Number
Simple Key Switch			
	1-pole – 15 A / 120 V	3/4”	**NTTPE2117**
	1-pole – 10 A / 250 V	3/4"	**NTTPE2118**
	2-pole – 15 A / 120 V	3/4”	**NTTPE2119**
	2-pole – 10 A / 250 V	3/4”	**NTTPE2120**
	1-pole – 20 A / 120 V	3/4”	**NTTPE2121**
	1-pole – 15 A / 250 V	3/4”	**NTTPE2122**
	2-pole – 20 A / 120 V	3/4”	**NTTPE2123**
	2-pole – 15 A / 250 V	3/4”	**NTTPE2124**
	1-pole – 15 A / 120 V	1”	**NTTPE3117**
	1-pole – 10 A / 250 V	1”	**NTTPE3118**
	2-pole – 15 A / 120 V	1”	**NTTPE3119**
	2-pole – 10 A / 250 V	1”	**NTTPE3120**
	1-pole – 20 A / 120 V	1”	**NTTPE3121**
	1-pole – 15 A / 250 V	1”	**NTTPE3122**
	2-pole – 20 A / 120 V	1”	**NTTPE3123**
	2-pole – 15 A / 250 V	1”	**NTTPE3124**
Key Switch with Indicator Light			
	1-pole – 15 A / 120 V	3/4”	**NTTPE2125**
	1-pole – 10 A / 250 V	3/4	**NTTPE2126**
	2-pole – 15 A / 120 V	3/4”	**NTTPE2127**
	2-pole – 10 A / 250 V	3/4”	**NTTPE2128**
	1-pole – 20 A / 120 V	3/4”	**NTTPE2129**
	1-pole – 15 A / 250 V	3/4”	**NTTPE2130**
	2-pole – 20 A / 120 V	3/4”	**NTTPE2131**
	2-pole – 15 A / 250 V	3/4”	**NTTPE2132**
	1-pole – 15 A / 120 V	1”	**NTTPE3125**
	1-pole – 10 A / 250 V	1”	**NTTPE3126**
	2-pole – 15 A / 120 V	1”	**NTTPE3127**
	2-pole – 10 A / 250 V	1”	**NTTPE3128**
	1-pole – 20 A / 120 V	1”	**NTTPE3129**
	1-pole – 15 A / 250 V	1”	**NTTPE3130**
	2-pole – 20 A / 120 V	1”	**NTTPE3131**
	2-pole – 15 A / 250 V	1”	**NTTPE3132**

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NTCIR Conduit Body

Weatherproof. Watertight

NBR IEC:
IP65

Applications

- Used for passage of electrical conductors.
- Provide openings for splicing.
- Permit access to conductors for maintenance.

Features

- Inspection lid fixed to the body with screws and sealing gasket between the body and cover.
- Hex head screws standard.
- Cover design allows easy removal without damaging the conduct body.
- Covers with integral gasket protects conductors against the ingress dust and water.
- NPT and BSP threads: Ø 1/2" to Ø 4". Metric threads: M20 to M100.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws and flat washers: AISI 304 stainless steel
- Sealing gasket: nitrile

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

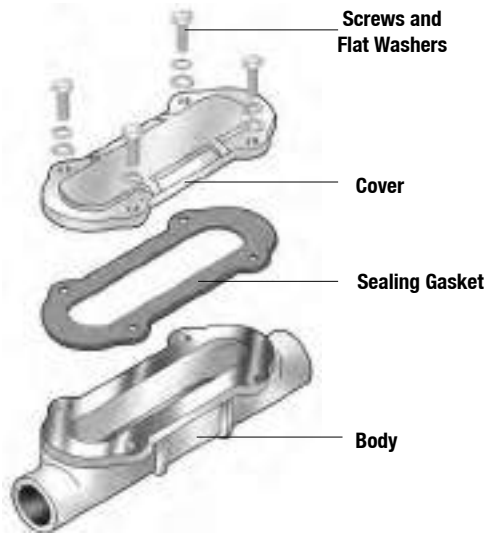
Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NTCIR01**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 8th position; example: NTCIR01**M**.

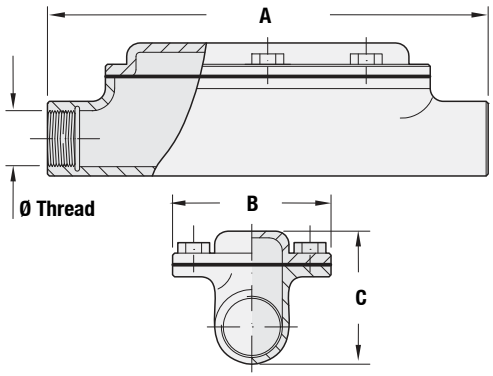
NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP65
- Other Standards: ABNT NBR IEC 60529 (IP)

Illustrated Features







Ø Thread	Dimensions mm (in) A	B	C	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number
1/2"	230 (9.06)	83 (3.27)	67 (2.64)	0.95 (2.09)	1.25 (76.3)	**NTCIR01N**
3/4"	230 (9.06)	83 (3.27)	67 (2.64)	0.94 (2.07)	1.25 (76.3)	**NTCIR02N**
1"	318 (12.52)	103 (4.06)	92 (3.62)	1.94 (4.27)	2.95 (180.0)	**NTCIR03N**
1-1/4"	318 (12.52)	103 (4.06)	92 (3.62)	1.89 (4.16)	2.95 (180.0)	**NTCIR04N**
1-1/2"	403 (15.87)	120 (4.72)	106 (4.17)	2.94 (6.47)	5.03 (306.9)	**NTCIR05N**
2"	403 (15.87)	120 (4.72)	106 (4.17)	2.84 (6.25)	5.03 (306.9)	**NTCIR06N**
2-1/2"	572 (22.52)	174 (6.85)	152 (5.98)	7.26 (15.97)	14.94 (911.7)	**NTCIR07N**
3"	572 (22.52)	174 (6.85)	152 (5.98)	7.10 (15.62)	14.94 (911.7)	**NTCIR08N**
3-1/2"	722 (28.43)	202 (7.95)	189 (7.44)	12.89 (28.36)	27.28 (1664.7)	**NTCIR09N**
4"	722 (28.43)	202 (7.95)	189 (7.44)	12.35 (27.17)	27.28 (1664.7)	**NTCIR10N**

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Nutsteel® NTCNI 90° Pulling Elbow

Conduit Systems Installations.

NBR IEC:
IP65



Applications

- Serve as pulling fittings.
- Provide openings for splicing of wires.
- Make 90º bends in conduit runs.
- Permits access to conductors for maintenance.

Features

- NPT threads standard Ø 1/2" to Ø 4".
- Conductors can be pulled straight through.
- Cover easily installed.

Standard Materials

- Body and cover: copperfree diecast aluminum alloy
- Screws and washers: AISI 304 stainless steel
- Sealing Gasket: EPDM rubber

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 8th position; example: NTCNI01**B**.

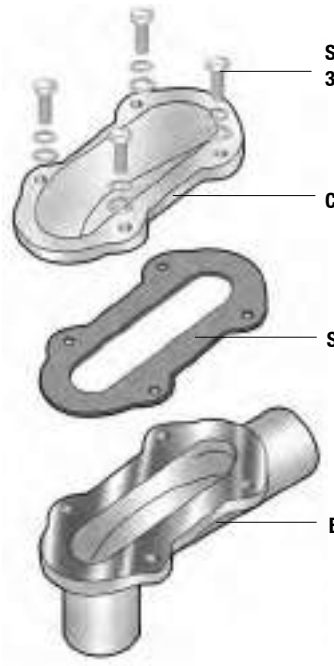
NBR IEC Certifications and Compliances

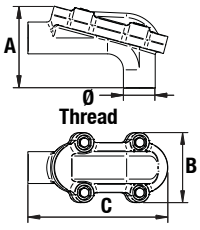
- Ingress Protection: IP65
- Standards: ABNT NBR IEC 60529 (IP)

Related Products

- We recommend using Gapsteel® between the body and cover whenever the box is opened.

Illustrated Features





Ø Thread	Dimensions mm (in) A	B	C	Weight kg (lb)	Catalog Number
1/2”	110 (4.33)	85 (3.35)	175 (6.89)	0.70 (1.54)	**NTCNI01N**
3/4”	110 (4.33)	85 (3.35)	175 (6.89)	0.68 (1.50)	**NTCNI02N**
1”	120 (4.72)	100 (3.94)	260 (10.24)	1.34 (2.95)	**NTCNI03N**
1-1/4”	170 (6.69)	140 (5.51)	350 (13.78)	3.10 (6.83)	**NTCNI04N**
1-1/2”	170 (6.69)	140 (5.51)	350 (13.78)	3.05 (6.72)	**NTCNI05N**
2”	170 (6.69)	140 (5.51)	355 (13.98)	3.82 (8.42)	**NTCNI06N**
2-1/2”	230 (9.06)	170 (6.69)	480 (18.90)	5.60 (12.35)	**NTCNI07N**
3”	230 (9.06)	170 (6.69)	480 (18.90)	5.20 (11.46)	**NTCNI08N**
3-1/2”	255 (10.04)	205 (8.07)	725 (28.54)	9.25 (20.39)	**NTCNI09N**
4”	255 (10.04)	205 (8.07)	725 (28.54)	9.01 (19.86)	**NTCNI10N**

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Nutsteel® NTUNM Male/Female Union

Weatherproof



Applications

- Used for joining two lengths of conduit and connecting conduit to weatherproof enclosures.
- Facilitates modifications, permits the removal of enclosures without turning or removal of conduit.

Features

- Body, counter piece and hexagonal ring Ø 1/2" to Ø 1-1/2" and octagonal Ø 2" to Ø 4".
- NPT threads standard Ø 1/2" to 4".
- O-Ring between the body and counter piece.

Standard Materials

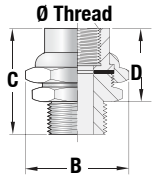
- Body: electroplated cast iron
- O-Ring: neoprene ring

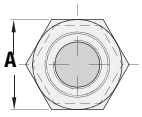
Options

- For hot-dip galvanization, replace the letter **E** with the letter **G** in the 9th position; example: NTUNM01N**G**.
- For cast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NTUNM01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NTUNM01**B**E.

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.





	Dimensions mm (in)				Weight kg (lb)		
Ø Thread	A	B	C	D	Iron	Aluminum	Catalog Number
1/2"	35 (1.38)	40 (1.57)	58 (2.28)	40 (1.57)	0.19 (0.42)	0.07 (0.15)	**NTUNM01NE**
3/4"	41 (1.61)	47 (1.85)	65 (2.56)	45 (1.77)	0.23 (0.51)	0.09 (0.20)	**NTUNM02NE**
1"	48 (1.89)	55 (2.17)	71 (2.80)	46 (1.81)	0.33 (0.73)	0.13 (0.29)	**NTUNM03NE**
1-1/4"	70 (2.76)	65 (2.56)	77 (3.03)	54 (2.13)	0.70 (1.54)	0.25 (0.55)	**NTUNM04NE**
1-1/2"	70 (2.76)	80 (3.15)	77 (3.03)	54 (2.13)	0.77 (1.70)	0.29 (0.64)	**NTUNM05NE**
2"	87 (3.43)	99 (3.90)	88 (3.46)	62 (2.44)	1.31 (2.89)	0.51 (1.12)	**NTUNM06NE**
2-1/2"	104 (4.09)	111(4.37)	98 (3.86)	68 (2.68)	1.95 (4.30)	0.73 (1.61)	**NTUNM07NE**
3"	122 (4.80)	132 (5.20)	101 (3.98)	68 (2.68)	2.52 (5.56)	0.95 (2.09)	**NTUNM08NE**
3-1/2"	146 (5.75)	157 (6.18)	118 (4.65)	82 (3.23)	3.50 (7.72)	1.30 (2.87)	**NTUNM09NE**
4"	146 (5.75)	157 (6.18)	118 (4.65)	82 (3.23)	3.90 (8.60)	1.44 (3.17)	**NTUNM10NE**

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Nutsteel® NTUNF Female/Female Union

Weatherproof



Applications

- Used for joining two lengths of conduit and connecting conduit to weatherproof enclosures.
- Facilitates modifications, permits the removal of enclosures without turning or removal of conduit.

Features

- Body, counter piece and hexagonal ring Ø 1/2” to Ø 1-1/2” and octagonal Ø 2” to Ø 4”.
- NPT threads standard Ø 1/2” to 4”.
- O-Ring between the body and counter piece.

Standard Materials

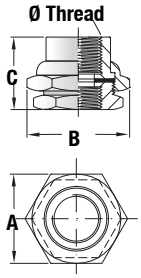
- Body: electroplated cast iron
- O-Ring: neoprene ring

Options

- For hot-dip galvanization, replace the letter **E** with the letter **G** in the 9th position; example: NTUNF01N**G**.
- For cast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NTUNF01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NTUNF01**B**E.

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Ø Thread	Dimensions mm (in) A	B	C	Weight kg (lb) Iron	Aluminum	Catalog Number
1/2”	35 (1.38)	40 (1.57)	43 (1.69)	0.15 (0.33)	0.05 (0.11)	**NTUNF01NE**
3/4”	40 (1.57)	47 (1.85)	49 (1.93)	0.20 (0.44)	0.07 (0.15)	**NTUNF02NE**
1”	48 (1.89)	55 (2.17)	50 (1.97)	0.27 (0.60)	0.10 (0.22)	**NTUNF03NE**
1-1/4”	78 (3.07)	65 (2.56)	55 (2.17)	0.63 (1.39)	0.23 (0.51)	**NTUNF04NE**
1-1/2”	78 (3.07)	80 (3.15)	55 (2.17)	0.64 (1.41)	0.23 (0.51)	**NTUNF05NE**
2”	88 (3.46)	99 (3.90)	65 (2.56)	1.14 (2.51)	0.42 (0.93)	**NTUNF06NE**
2-1/2”	103 (4.06)	111 (4.37)	71 (2.80)	1.16 (2.56)	0.60 (1.32)	**NTUNF07NE**
3”	120 (4.72)	132 (5.20)	72 (2.83)	1.96 (4.32)	0.72 (1.59)	**NTUNF08NE**
3-1/2”	140 (5.51)	157 (6.18)	85 (3.35)	3.14 (6.92)	1.07 (2.36)	**NTUNF09NE**
4”	140 (5.51)	157 (6.18)	85 (3.35)	3.16 (6.97)	1.08 (2.38)	**NTUNF10NE**

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Applications

- To provide for slight expansion and contraction of conduit runs.
- To retrofit sections of conduit runs.

Features

- NPT threads standard Ø 1/2" to Ø 4".
- Available in two models:
  - — NTJES provided without bonding jumper
  - — NTJEC provided with bonding jumper. Copper bonding jumpers provide additional effective metallic bond to each conduit run
- Maximum movement: 100 mm (3.94").

Standard Materials

- Body and nut: copperfree diecast aluminum
- Internal gasket: lead
- Washer: aluminum
- Bonding jumper: galvanized copper

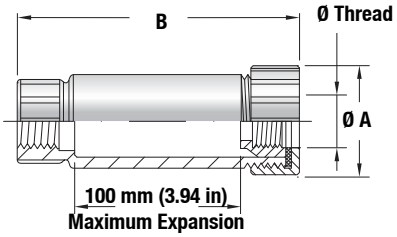
Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

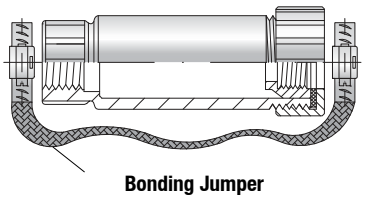


Options

- For BSP threads, replace the letter **N** with the letter **B** in the 8th position; example: NTJES01**B**A.
- For electroplated galvanized cast iron, replace the letter **A** with the letter **E** in the 9th position; example: NTJES01N**E**.
- For hot-dip galvanized cast iron, replace the letter **A** with the letter **G** in the 9th position; example: NTJES01N**G**.



NTJES



NTJEC

Ø Thread	Dimensions mm (in) Ø A	B	Weight kg (lb) Aluminum	Catalog Number Without Bonding Jumper	With Bonding Jumper
1/2”	55 (2.17)	155 (6.10)	0.35 (0.77)	**NTJES01NA**	**NTJEC01NA**
3/4”	55 (2.17)	155 (6.10)	0.33 (0.73)	**NTJES02NA**	**NTJEC02NA**
1”	70 (2.76)	155 (6.10)	0.47 (1.04)	**NTJES03NA**	**NTJEC03NA**
1-1/4”	70 (2.76)	155 (6.10)	0.75 (1.65)	**NTJES04NA**	**NTJEC04NA**
1-1/2”	84 (3.31)	165 (6.50)	0.73 (1.61)	**NTJES05NA**	**NTJEC05NA**
2”	100 (3.94)	165 (6.50)	1.13 (2.49)	**NTJES06NA**	**NTJEC06NA**
2-1/2”	143 (5.63)	183 (7.20)	3.04 (6.70)	**NTJES07NA**	**NTJEC07NA**
3”	143 (5.63)	183 (7.20)	2.84 (6.26)	**NTJES08NA**	**NTJEC08NA**
3-1/2”	173 (6.81)	183 (7.20)	3.47 (7.65)	**NTJES09NA**	**NTJEC09NA**
4”	173 (6.81)	183 (7.20)	3.63 (8.00)	**NTJES10NA**	**NTJEC10NA**

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Nutsteel® NTARF Lock Nuts



Applications

- Used for securing conduit to box.

Features

- Hexagonal locknut Ø 1/2” to Ø 1-1/2” and octagonal Ø 2” to Ø 4”.
- NPT threads standard Ø 1/2” to 4”.

Standard Materials

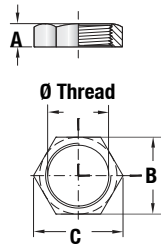
- Electroplated cast iron

Options

- For hot-dipped iron, replace the letter **E** with the letter **G** in the 9th position; example: NTARF01N**G**.
- For cast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NTARF01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NTARF01**B**E.

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



	Dimensions mm (in)			Weight kg (lb)		
Ø Thread	A	B	C	Iron	Aluminum	Catalog Number
1/2”	6 (0.24)	24 (0.94)	27 (1.06)	0.010 (0.02)	0.005 (0.01)	**NTARF01NE**
3/4”	7 (0.28)	32 (1.26)	36 (1.42)	0.020 (0.04)	0.005 (0.01)	**NTARF02NE**
1”	8 (0.31)	38 (1.50)	43 (1.69)	0.025 (0.06)	0.010 (0.02)	**NTARF03NE**
1-1/4”	9 (0.35)	48 (1.89)	55 (2.17)	0.045 (0.10)	0.020 (0.04)	**NTARF04NE**
1-1/2”	11 (0.43)	56 (2.20)	65 (2.56)	0.085 (0.19)	0.035 (0.08)	**NTARF05NE**
2”	13 (0.51)	70 (2.76)	75 (2.95)	0.120 (0.26)	0.045 (0.10)	**NTARF06NE**
2-1/2”	13 (0.51)	82 (3.23)	90 (3.54)	0.185 (0.41)	0.065 (0.14)	**NTARF07NE**
3”	15 (0.59)	101 (3.98)	107 (4.21)	0.240 (0.53)	0.090 (0.20)	**NTARF08NE**
4”	17 (0.67)	126 (4.96)	137 (5.39)	0.390 (0.86)	0.145 (0.32)	**NTARF10NE**

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Applications

- Used for protection of wires and cables at entry and exit of conduit.

Features

- Hexagonal bushing Ø 1/2” to Ø 1-1/2” and octagonal Ø 2” to Ø 4”.
- NPT threads standard Ø 1/2” to 4”.

Standard Materials

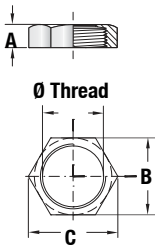
- Electroplated cast iron

Options

- For hot-dipped iron, replace the letter **E** with the letter **G** in the 9th position; example: NTBCF01N**G**.
- For cast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NTBCF01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NTBCF01**B**E.

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



	Dimensions mm (in)			Weight kg (lb)		
Ø Thread	A	B	C	Iron	Aluminum	Catalog Number
1/2”	11 (0.43)	24 (0.94)	27 (1.06)	0.015 (0.03)	0.010 (0.02)	**NTBCF01NE**
3/4”	12 (0.47)	32 (1.26)	36 (1.42)	0.035 (0.08)	0.015 (0.03)	**NTBCF02NE**
1”	14 (0.55)	38 (1.50)	43 (1.69)	0.055 (0.12)	0.020 (0.04)	**NTBCF03NE**
1-1/4”	15 (0.59)	48 (1.89)	55 (2.17)	0.090 (0.20)	0.040 (0.09)	**NTBCF04NE**
1-1/2”	17 (0.67)	56 (2.20)	65 (2.56)	0.140 (0.31)	0.050 (0.11)	**NTBCF05NE**
2”	17 (0.67)	70 (2.76)	75 (2.95)	0.175 (0.39)	0.060 (0.13)	**NTBCF06NE**
2-1/2”	18 (0.71)	82 (3.23)	88 (3.16)	0.250 (0.55)	0.100 (0.22)	**NTBCF07NE**
3”	20 (0.79)	101 (3.98)	108 (4.25)	0.395 (0.87)	0.150 (0.33)	**NTBCF08NE**
4”	22 (0.87)	126 (4.96)	135 (5.31)	0.545 (1.20)	0.205 (0.45)	**NTBCF10NE**

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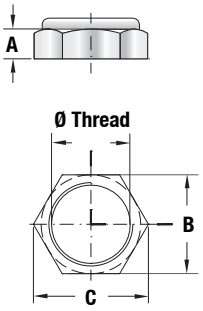
Applications
- Used for protection of wires and cables at entry and exit of conduit.

Features
- Hexagonal bushing Ø 1/2” to Ø 1-1/2” and octagonal Ø 2” to Ø 4”.
- NPT threads standard Ø 1/2” to 4”.

Standard Materials
- Electroplated cast iron
- Insulating ring: Bakelite

Options
- For hot-dipped iron, replace the letter **E** with the letter **G** in the 9th position; example: NTBCI01N**G**.
- For cast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NTBCI01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NTBCI01**B**E.

Related Products
- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Ø Thread	Dimensions mm (in) A	B	C	Weight kg (lb) Iron	Aluminum	Catalog Number
1/2”	14 (0.55)	24 (0.94)	27 (1.06)	0.020 (0.04)	0.010 (0.02)	**NTBCI01NE**
3/4”	16 (0.63)	32 (1.26)	36 (1.42)	0.040 (0.09)	0.015 (0.03)	**NTBCI02NE**
1”	18 (0.71)	38 (1.50)	43 (1.69)	0.050 (0.11)	0.022 (0.05)	**NTBCI03NE**
1-1/4”	20 (0.79)	48 (1.89)	55 (2.17)	0.095 (0.21)	0.050 (0.11)	**NTBCI04NE**
1-1/2”	22 (0.87)	56 (2.20)	65 (2.56)	0.140 (0.31)	0.063 (0.14)	**NTBCI05NE**
2”	23 (0.91)	70 (2.76)	75 (2.95)	0.175 (0.39)	0.078 (0.17)	**NTBCI06NE**
2-1/2”	24 (0.94)	82 (3.23)	88 (3.46)	0.205 (0.45)	0.108 (0.24)	**NTBCI07NE**
3”	31 (1.22)	101 (3.98)	108 (4.25)	0.385 (0.85)	0.180 (0.40)	**NTBCI08NE**
4”	31 (1.22)	126 (4.96)	135 (5.31)	0.550 (1.21)	0.250 (0.55)	**NTBCI10NE**

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Nutsteel® NTBCT Terminal/Grounding Bushings



Applications

- Provides a compact means of grounding conduit through a bushing.
- Used for protection of wires and cables at entry and exit of conduit.

Features

- Hexagonal bushing Ø 1/2” to Ø 1-1/2” and octagonal Ø 2” to Ø 4”.
- NPT threads standard Ø 1/2” to 4”.

Standard Materials

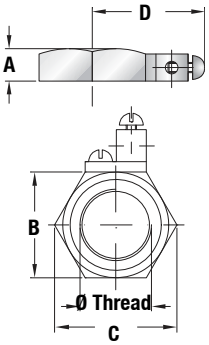
- Electroplated cast iron

Options

- For hot-dipped iron, replace the letter **E** with the letter **G** in the 9th position; example: NTBCT01N**G**.
- For cast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NTBCT01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NTBCT01**B**E.

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Ø Thread	Dimensions mm (in) A	B	C	D	Wire Size Min. – Max. mm² (in²)	Weight kg (lb) Iron	Aluminum	Catalog Number
1/2”	11 (0.43)	24 (0.94)	27 (1.06)	29 (1.14)	6-16 (0.24-0.63)	0.030 (0.07)	0.020 (0.04)	**NTBCT01NE**
3/4”	12 (0.47)	32 (1.26)	36 (1.42)	33 (1.30)	6-16 (0.24-0.63)	0.050 (0.11)	0.022 (0.05)	**NTBCT02NE**
1”	14 (0.55)	38 (1.50)	43 (1.69)	36 (1.42)	6-16 (0.24-0.63)	0.070 (0.15)	0.028 (0.06)	**NTBCT03NE**
1-1/4”	15 (0.59)	48 (1.89)	55 (2.17)	41 (1.61)	6-16 (0.24-0.63)	0.100 (0.22)	0.053 (0.12)	**NTBCT04NE**
1-1/2”	17 (0.67)	57 (2.24)	64 (2.52)	44 (1.73)	6-16 (0.24-0.63)	0.155 (0.34)	0.063 (0.14)	**NTBCT05NE**
2”	17 (0.67)	70 (2.76)	74 (2.91)	56 (2.20)	25-35 (0.98-1.38)	0.195 (0.43)	0.087 (0.19)	**NTBCT06NE**
2-1/2”	18 (0.71)	82 (3.23)	88 (3.46)	63 (2.48)	25-35 (0.98-1.38)	0.215 (0.47)	0.110 (0.24)	**NTBCT07NE**
3”	20 (0.79)	101 (3.98)	109 (4.29)	72 (2.83)	25-35 (0.98-1.38)	0.385 (0.85)	0.170 (0.37)	**NTBCT08NE**
4”	22 (0.87)	125 (4.92)	137 (5.39)	84 (3.31)	25-35 (0.98-1.38)	0.550 (1.21)	0.230 (0.51)	**NTBCT10NE**

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Nutsteel® NTBCG Insulated Terminal/Grounding Bushings



Applications

- Provides a compact means of grounding conduit through an insulated bushing.
- Used for protection of wires and cables at entry and exit of conduit.

Features

- Hexagonal bushing Ø 1/2" to Ø 1-1/2" and octagonal Ø 2" to Ø 4".
- NPT threads standard Ø 1/2" to 4".

Standard Materials

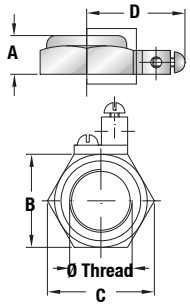
- Electroplated cast iron
- Insulating ring: Bakelite

Options

- For hot-dipped iron, replace the letter **E** with the letter **G** in the 9th position; example: NTBCG01N**G**.
- For cast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NTBCG01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NTBCG01**B**E.

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Ø Thread	Dimensions mm (in) A	B	C	D	Wire Size Min. – Max. (in^2/mm^2)	Weight kg (lb) Iron	Aluminum	Catalog Number
1/2"	14 (0.55)	24 (0.94)	27 (1.06)	29 (1.14)	6-16 (0.24-0.63)	0.035 (0.08)	0.020 (0.04)	**NTBCG01NE**
3/4"	16 (0.63)	32 (1.26)	36 (1.42)	33 (1.30)	6-16 (0.24-0.63)	0.055 (0.12)	0.022 (0.05)	**NTBCG02NE**
1"	18 (0.71)	38 (1.50)	43 (1.69)	36 (1.42)	6-16 (0.24-0.63)	0.075 (0.17)	0.028 (0.06)	**NTBCG03NE**
1-1/4"	20 (0.79)	48 (1.89)	55 (2.17)	41 (1.61)	6-16 (0.24-0.63)	0.105 (0.23)	0.053 (0.12)	**NTBCG04NE**
1-1/2"	22 (0.87)	57 (2.24)	65 (2.56)	44 (1.73)	6-16 (0.24-0.63)	0.155 (0.34)	0.063 (0.14)	**NTBCG05NE**
2"	23 (0.91)	70 (2.76)	75 (2.95)	56 (2.20)	25-35 (0.98-1.38)	0.200 (0.44)	0.087 (0.19)	**NTBCG06NE**
2-1/2"	24 (0.94)	82 (3.23)	88 (3.46)	63 (2.48)	25-35 (0.98-1.38)	0.220 (0.49)	0.110 (0.24)	**NTBCG07NE**
3"	31 (1.22)	101 (3.98)	108 (4.25)	72 (2.83)	25-35 (0.98-1.38)	0.395 (0.87)	0.170 (0.37)	**NTBCG08NE**
4"	31 (1.22)	125 (4.92)	135 (5.31)	84 (3.31)	25-35 (0.98-1.38)	0.560 (1.23)	0.230 (0.51)	**NTBCG10NE**

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Nutsteel® NTBCB Threaded Insulating Bushings



Applications

- Used for protection of wires and cables at entry and exit of conduit.

Features

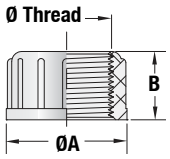
- Circular threaded bushing Ø 1/2” to Ø 1-1/2” and octagonal Ø 2” to Ø 4”.
- BSP threads standard Ø 1/2” to 4”.

Standard Materials

- Bakelite

Options

- For NPT threads, replace the letter **B** with the letter **N**, in the 8th position; example: NTBCB01**N**.



Dimensions mm (in)				
Ø Thread	A	B	Weight kg (lb)	Catalog Number
1/2”	30 (1.18)	13 (0.51)	0.005 (0.01)	**NTBCB01B**
3/4”	36 (1.42)	13 (0.51)	0.005 (0.01)	**NTBCB02B**
1”	43 (1.69)	18 (0.71)	0.015 (0.03)	**NTBCB03B**
1-1/4”	53 (2.09)	17 (0.67)	0.020 (0.04)	**NTBCB04B**
1-1/2”	59 (2.32)	17 (0.67)	0.020 (0.04)	**NTBCB05B**
2”	72 (2.83)	20 (0.79)	0.035 (0.08)	**NTBCB06B**
2-1/2”	85 (3.35)	23 (0.91)	0.055 (0.12)	**NTBCB07B**
3”	101 (3.98)	23 (0.91)	0.065 (0.14)	**NTBCB08B**
3-1/2”	115 (4.53)	22 (0.87)	0.075 (0.17)	**NTBCB09B**
4”	125 (4.92)	24 (0.94)	0.085 (0.19)	**NTBCB10B**

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Nutsteel® NTBJS Blanking Plugs

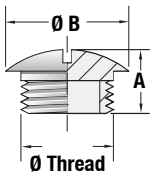


Applications
- Used to seal threaded entries in electrical equipment.

Features
- Ensures a weatherproof seal according to the manufacturing standards.
- BSP threads standard Ø 1/2” to 2”.

Standard Materials
- Gray injection molded polypropylene

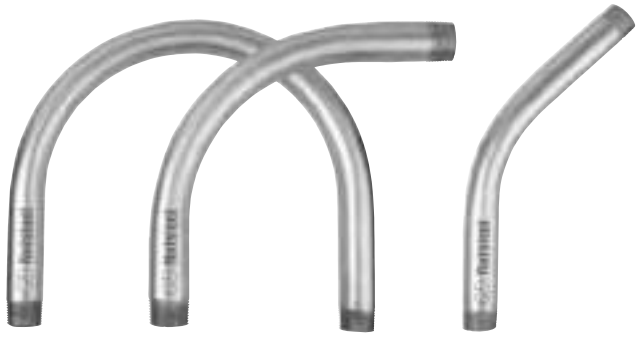
Options
- For NPT threads, replace the letter **B** with the letter **N**, in the 8th position; example: NTBJS01**N**P.



	Dimensions mm (in)				
	Ø Thread	A	B	Weight kg (lb)	Catalog Number
	1/2”	14 (0.55)	26 (1.02)	0.005 (0.01)	**NTBJS01BP**
	3/4”	14 (0.55)	34 (1.34)	0.005 (0.01)	**NTBJS02BP**
	1”	14 (0.55)	39 (1.54)	0.005 (0.01)	**NTBJS03BP**
	1-1/4”	15 (0.59)	47 (1.85)	0.010 (0.02)	**NTBJS04BP**
	1-1/2”	15 (0.59)	53 (2.09)	0.010 (0.02)	**NTBJS05BP**
	2”	15 (0.59)	65 (2.56)	0.010 (0.02)	**NTBJS06BP**

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Nutsteel® NECP Heavy Duty Conduit Bends



Applications

- Used to change the direction of a conduit run.
- Used for protection of wires and cables at enclosure entry.

Features

- Available in 3 models: 45°, 90° and 180°.
- Comes standard with thread protectors on the ends.
- NPT threads standard Ø 1/2" to 4".
- Tolerance: a) Wall: 12.5 %; b) Ø External: from 1/2" to 1-1/2": 0.4 - 0.8 mm and 2" to 4": 1%.

Standard Materials

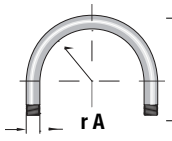
- Seamed carbon steel pipe (internal weld seam has been removed)

Standard Finish

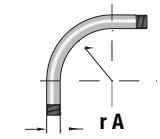
- Hot dip galvanized

Options

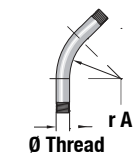
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NECPC01**B**G.



180° Curve



90° Curve



45° Curve

Angle	Ø Thread	Ø External mm (in) NPT	Ø External mm (in) BSP	Wall Thickness mm (in) NPT	Wall Thickness mm (in) BSP	Radius "A" mm (in)	Weight kg (lb) NPT	Weight kg (lb) BSP	Catalog Number
45°	1/2"	21.30 (0.84)	21.30 (0.84)	2.25 (0.09)	2.25 (0.09)	102 (4.02)	0.35 (0.77)	0.35 (0.77)	**NECPA01NG**
90°	1/2"	21.30 (0.84)	21.30 (0.84)	2.25 (0.09)	2.25 (0.09)	102 (4.02)	0.35 (0.77)	0.35 (0.77)	**NECPB01NG**
180°	1/2"	21.30 (0.84)	21.30 (0.84)	2.25 (0.09)	2.25 (0.09)	102 (4.02)	0.57 (1.26)	0.57 (1.26)	**NECPC01NG**
45°	3/4"	26.90 (1.06)	26.90 (1.06)	2.25 (0.09)	2.25 (0.09)	114 (4.49)	0.49 (1.08)	0.49 (1.08)	**NECPA02NG**
90°	3/4"	26.90 (1.06)	26.90 (1.06)	2.25 (0.09)	2.25 (0.09)	114 (4.49)	0.47 (1.04)	0.47 (1.04)	**NECPB02NG**
180°	3/4"	26.90 (1.06)	26.90 (1.06)	2.25 (0.09)	2.25 (0.09)	114 (4.49)	0.73 (1.61)	0.73 (1.61)	**NECPC02NG**
45°	1"	33.70 (1.33)	33.70 (1.33)	2.65 (0.10)	2.65 (0.10)	146 (5.75)	0.77 (1.70)	0.77 (1.70)	**NECPA03NG**
90°	1"	33.70 (1.33)	33.70 (1.33)	2.65 (0.10)	2.65 (0.10)	146 (5.75)	0.87 (1.92)	0.87 (1.92)	**NECPB03NG**
180°	1"	33.70 (1.33)	33.70 (1.33)	2.65 (0.10)	2.65 (0.10)	146 (5.75)	1.49 (3.28)	1.49 (3.28)	**NECPC03NG**
45°	1-1/4"	42.40 (1.67)	42.40 (1.67)	3.00 (0.12)	2.65 (0.10)	184 (7.24)	1.24 (2.73)	1.24 (2.73)	**NECPA04NG**
90°	1-1/4"	42.40 (1.67)	42.40 (1.67)	3.00 (0.12)	2.65 (0.10)	184 (7.24)	1.32 (2.91)	1.32 (2.91)	**NECPB04NG**
180°	1-1/4"	42.40 (1.67)	42.40 (1.67)	3.00 (0.12)	2.65 (0.10)	184 (7.24)	2.20 (4.85)	2.20 (4.85)	**NECPC04NG**
45°	1-1/2"	48.30 (1.90)	48.30 (1.90)	3.00 (0.12)	3.00 (0.12)	210 (8.27)	1.94 (4.28)	1.94 (4.28)	**NECPA05NG**
90°	1-1/2"	48.30 (1.90)	48.30 (1.90)	3.00 (0.12)	3.00 (0.12)	210 (8.27)	2.04 (4.50)	2.04 (4.50)	**NECPB05NG**
180°	1-1/2"	48.30 (1.90)	48.30 (1.90)	3.00 (0.12)	3.00 (0.12)	210 (8.27)	3.16 (6.97)	3.16 (6.97)	**NECPC05NG**
45°	2"	60.30 (2.37)	60.30 (2.37)	3.35 (0.13)	3.00 (0.12)	241 (9.49)	2.62 (5.78)	2.62 (5.78)	**NECPA06NG**
90°	2"	60.30 (2.37)	60.30 (2.37)	3.35 (0.13)	3.00 (0.12)	241 (9.49)	2.91 (6.42)	2.91 (6.42)	**NECPB06NG**
180°	2"	60.30 (2.37)	60.30 (2.37)	3.35 (0.13)	3.00 (0.12)	241 (9.49)	4.89 (10.78)	4.89 (10.78)	**NECPC06NG**
45°	2-1/2"	73.00 (2.87)	76.10 (3.00)	3.75 (0.15)	3.35 (0.13)	267 (10.51)	5.60 (12.35)	4.08 (8.99)	**NECPA07NG**
90°	2-1/2"	73.00 (2.87)	76.10 (3.00)	3.75 (0.15)	3.35 (0.13)	267 (10.51)	7.33 (16.16)	5.34 (11.77)	**NECPB07NG**
180°	2-1/2"	73.00 (2.87)	76.10 (3.00)	3.75 (0.15)	3.35 (0.13)	267 (10.51)	10.77 (23.74)	7.85 (17.31)	**NECPC07NG**
45°	3"	88.90 (3.50)	88.90 (3.50)	3.75 (0.15)	3.35 (0.13)	330 (12.99)	5.91 (13.03)	5.91 (13.03)	**NECPA08NG**
90°	3"	88.90 (3.50)	88.90 (3.50)	3.75 (0.15)	3.35 (0.13)	330 (12.99)	7.48 (16.49)	7.48 (16.49)	**NECPB08NG**
180°	3"	88.90 (3.50)	88.90 (3.50)	3.75 (0.15)	3.35 (0.13)	330 (12.99)	11.07 (24.41)	11.07 (24.41)	**NECPC08NG**
45°	4"	114.30 (4.50)	114.30 (4.50)	4.25 (0.17)	3.75 (0.15)	406 (15.98)	9.04 (19.93)	9.04 (19.93)	**NECPA10NG**
90°	4"	114.30 (4.50)	114.30 (4.50)	4.25 (0.17)	3.75 (0.15)	406 (15.98)	12.76 (28.13)	12.76 (28.13)	**NECPB10NG**
180°	4"	114.30 (4.50)	114.30 (4.50)	4.25 (0.17)	3.75 (0.15)	406 (15.98)	19.15 (42.22)	19.15 (42.22)	**NECPC10NG**

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Nutsteel® NTGRU Heavy Duty U Bolts

Applications

- Used in heavy installations for fixing conduit sized Ø 3/8” to Ø 16.

Features

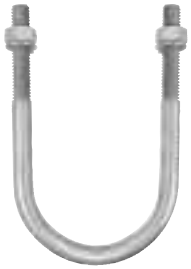
- Capable of withstanding heavy loads.
- Supplied with two hex nuts and two spring lock washers made of the same material.

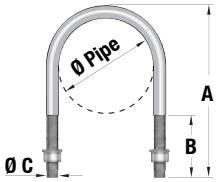
Standard Materials

- Electroplated AISI 304 stainless steel or SAE 1010/1020 steel rod.

Options

- For hot-dipped iron, replace the letter **E** with the letter **G** in the 8th position; example: NTGRU08**G**.





Ø Pipe	Dimensions mm (in) A	B	Ø C	Weight kg (lb)	Catalog Number AISI 304 Stainless Steel	SAE 1010/20 Steel
3/8”	59 (2.32)	33.30 (1.31)	1/4”	0.03 (0.07)	**NTGRU00I4**	**NTGRU00E**
1/2”	70 (2.76)	44.50 (1.75)	5/16”	0.04 (0.09)	**NTGRU01I4**	**NTGRU01E**
3/4”	78 (3.07)	44.50 (1.75)	5/16”	0.05 (0.11)	**NTGRU02I4**	**NTGRU02E**
1”	84 (3.31)	47.60 (1.87)	5/16”	0.06 (0.13)	**NTGRU03I4**	**NTGRU03E**
1-1/4”	89 (3.50)	44.50 (1.75)	5/16”	0.07 (0.15)	**NTGRU04I4**	**NTGRU04E**
1-1/2”	95 (3.74)	44.50 (1.75)	5/16”	0.09 (0.20)	**NTGRU05I4**	**NTGRU05E**
2”	119 (4.69)	52.40 (2.06)	3/8”	0.12 (0.26)	**NTGRU06I4**	**NTGRU06E**
2-1/2”	130 (5.12)	52.40 (2.06)	3/8”	0.14 (0.31)	**NTGRU07I4**	**NTGRU07E**
3”	144 (5.67)	52.40 (2.06)	3/8”	0.15 (0.33)	**NTGRU08I4**	**NTGRU08E**
3-1/2”	157 (6.18)	52.40 (2.06)	3/8”	0.16 (0.35)	**NTGRU09I4**	**NTGRU09E**
4”	176 (6.93)	57.20 (2.25)	3/8”	0.19 (0.42)	**NTGRU10I4**	**NTGRU10E**
5”	216 (8.50)	76.20 (3.00)	3/8”	0.23 (0.51)	**NTGRU11I4**	**NTGRU11E**
6”	257 (10.12)	95.30 (3.75)	1/2”	0.27 (0.60)	**NTGRU12I4**	**NTGRU12E**
8”	308 (12.13)	95.30 (3.75)	5/8”	0.32 (0.71)	**NTGRU13I4**	**NTGRU13E**
10”	371 (14.61)	101.60 (4.00)	5/8”	0.38 (0.84)	**NTGRU14I4**	**NTGRU14E**
12”	400 (15.75)	108.00 (4.25)	5/8”	0.40 (0.88)	**NTGRU15I4**	**NTGRU15E**
14”	442 (17.40)	110.00 (4.33)	3/4”	0.44 (0.97)	**NTGRU16I4**	**NTGRU16E**
16”	492 (19.37)	120.00 (4.72)	7/8”	0.49 (1.08)	**NTGRU17I4**	**NTGRU17E**

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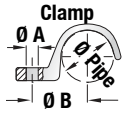


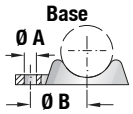
Applications
- Used for fixing conduit Ø 1/2” to Ø 4”.

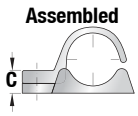
Features
- Easy installation.
- Clamp and mounting base sold separately.

Standard Materials
- Hot dip galvanized cast iron

Options
- For electroplated galvanization, replace the letter **G** with the letter **E** in the 8th position; example: NTAUF01**E**.
- For cast aluminum, replace the letter **G** with the letter **A** in the 8th position; example: NTAUF01**A**.







	Dimensions mm (in)				Weight kg (lb) Clamp		Base		Catalog Number	
	Ø Pipe	Ø A	Ø B	C	Iron	Aluminum	Iron	Aluminum	Clamp	Base
	1/2”	7.0 (0.28)	24 (0.94)	19 (0.75)	0.02 (0.04)	0.02 (0.04)	0.03 (0.07)	0.02 (0.04)	**NTAUF01G**	**NTBAF01G**
	3/4”	7.0 (0.28)	29 (1.14)	19 (0.75)	0.02 (0.04)	0.02 (0.04)	0.04 (0.09)	0.03 (0.07)	**NTAUF02G**	**NTBAF02G**
	1”	8.5 (0.33)	36 (1.42)	19 (0.75)	0.07 (0.15)	0.04 (0.09)	0.09 (0.20)	0.04 (0.09)	**NTAUF03G**	**NTBAF03G**
	1-1/4”	8.5 (0.33)	42 (1.65)	19 (0.75)	0.10 (0.22)	0.05 (0.11)	0.11 (0.24)	0.06 (0.13)	**NTAUF04G**	**NTBAF04G**
	1-1/2”	10.5 (0.41)	47 (1.85)	19 (0.75)	0.13 (0.29)	0.06 (0.13)	0.13 (0.29)	0.08 (0.18)	**NTAUF05G**	**NTBAF05G**
	2”	10.5 (0.41)	55 (2.17)	26 (1.02)	0.22 (0.49)	0.10 (0.22)	0.19 (0.42)	0.13 (0.29)	**NTAUF06G**	**NTBAF06G**
	2-1/2”	13.5 (0.53)	67 (2.64)	45 (1.77)	0.29 (0.64)	0.15 (0.33)	0.27 (0.60)	0.14 (0.31)	**NTAUF07G**	**NTBAF07G**
	3”	13.5 (0.53)	75 (2.95)	45 (1.77)	0.48 (1.06)	0.26 (0.57)	0.42 (0.93)	0.20 (0.44)	**NTAUF08G**	**NTBAF08G**
	4”	13.5 (0.53)	100 (3.94)	56 (2.20)	0.70 (1.54)	0.41 (0.90)	0.53 (1.17)	0.23 (0.51)	**NTAUF10G**	**NTBAF10G**

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Nutsteel® NTAUR One Hole Click–On Strap



Applications

- Used for fixing conduit Ø 1/2” to Ø 4”.

Features

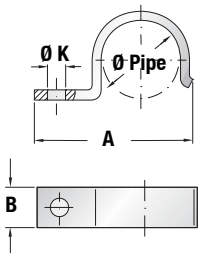
- Click-on strap for rigid conduit or IMC.
- Provides support for runs on conduit.

Standard Materials

- Hot dip galvanized SAE 1010/1020 steel or AISI 304 stainless steel

Options

- For electroplated galvanization, replace the letter **G** with the letter **E** in the 8th position; example: NTAUR01**E**.



	Dimensions mm (in)				Weight	Catalog Number	
	Ø Pipe	A	B	Ø K	kg (lb)	AISI 304 Stainless Steel	SAE 1010/20 Steel
	1/2”	58 (2.28)	38 (1.50)	7.5 (0.30)	0.03 (0.07)	**NTAUR01I4**	**NTAUR01G**
	3/4”	71 (2.80)	38 (1.50)	7.5 (0.30)	0.04 (0.09)	**NTAUR02I4**	**NTAUR02G**
	1”	80 (3.15)	38 (1.50)	7.5 (0.30)	0.06 (0.13)	**NTAUR03I4**	**NTAUR03G**
	1-1/4”	92 (3.62)	38 (1.50)	10 (0.39)	0.07 (0.15)	**NTAUR04I4**	**NTAUR04G**
	1-1/2”	94 (3.70)	38 (1.50)	10 (0.39)	0.09 (0.20)	**NTAUR05I4**	**NTAUR05G**
	2”	110 (4.33)	38 (1.50)	10 (0.39)	0.10 (0.22)	**NTAUR06I4**	**NTAUR06G**
	2-1/2”	123 (4.84)	38 (1.50)	10 (0.39)	0.15 (0.33)	**NTAUR07I4**	**NTAUR07G**
	3”	133 (5.24)	38 (1.50)	10 (0.39)	0.18 (0.40)	**NTAUR08I4**	**NTAUR08G**
	3-1/2”	142 (5.59)	38 (1.50)	10 (0.39)	0.22 (0.49)	**NTAUR09I4**	**NTAUR09G**
	4”	158 (6.22)	38 (1.50)	10 (0.39)	0.23 (0.51)	**NTAUR10I4**	**NTAUR10G**

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Nutsteel® NTADR Two Hole Click–On Strap

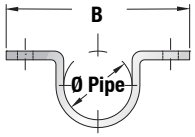


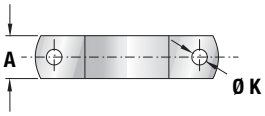
Applications
- Used for fixing conduit Ø 1/2” to Ø 4”.

Features
- Click-on strap for rigid conduit or IMC.
- Provides support for runs on conduit.

Standard Materials
- Hot dip galvanized reinforced SAE 1010/1020 steel plate or AISI 304 stainless steel

Options
- For electroplated galvanization, replace the letter **G** with the letter **E** in the 8th position; example: NTADR01**E**.





Ø Pipe	Dimensions mm (in) A	B	Ø K	Weight kg (lb)	Catalog Number AISI 304 Stainless Steel	SAE 1010/20 Steel
1/2”	38 (1.50)	82 (3.23)	7.5 (0.30)	0.04 (0.09)	**NTADR01I4**	**NTADR01G**
3/4”	38 (1.50)	85 (3.35)	7.5 (0.30)	0.05 (0.11)	**NTADR02I4**	**NTADR02G**
1”	38 (1.50)	95 (3.74)	7.5 (0.30)	0.07 (0.15)	**NTADR03I4**	**NTADR03G**
1-1/4”	38 (1.50)	127 (5.00)	10 (0.39)	0.10 (0.22)	**NTADR04I4**	**NTADR04G**
1-1/2”	38 (1.50)	127 (5.00)	10 (0.39)	0.10 (0.22)	**NTADR05I4**	**NTADR05G**
2”	38 (1.50)	166 (6.54)	10 (0.39)	0.14 (0.31)	**NTADR06I4**	**NTADR06G**
2-1/2”	38 (1.50)	181 (7.13)	10 (0.39)	0.15 (0.33)	**NTADR07I4**	**NTADR07G**
3”	38 (1.50)	183 (7.20)	10 (0.39)	0.17 (0.37)	**NTADR08I4**	**NTADR08G**
3-1/2”	38 (1.50)	203 (7.99)	10 (0.39)	0.19 (0.42)	**NTADR09I4**	**NTADR09G**
4”	38 (1.50)	216 (8.50)	10 (0.39)	0.21 (0.46)	**NTADR10I4**	**NTADR10G**

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Nutsteel® NTADA Heavy Duty Conduit Hanger

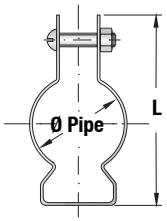


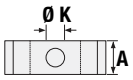
Applications
- Secure and suspend Ø 1/2” to Ø 4” conduit.

Features
- Furnished with carriage bolt.
- Provides support for runs on conduit.

Standard Materials
- Hot dip galvanized reinforced SAE 1010/1020 steel plate or AISI 304 stainless steel

Options
- For electroplated galvanization, replace the letter **G** with the letter **E** in the 8th position; example: NTADA01**E**.





Ø Pipe	Dimensions mm (in) L	A	Ø K	Weight kg (lb)	Catalog Number
1/2”	52 (2.05)	38 (1.50)	7.5 (0.30)	0.02 (0.04)	**NTADA01G**
3/4”	64 (2.52)	38 (1.50)	7.5 (0.30)	0.02 (0.04)	**NTADA02G**
1”	71 (2.80)	38 (1.50)	7.5 (0.30)	0.03 (0.07)	**NTADA03G**
1-1/4”	85 (3.35)	38 (1.50)	10 (0.39)	0.06 (0.13)	**NTADA04G**
1-1/2”	92 (3.62)	38 (1.50)	10 (0.39)	0.07 (0.15)	**NTADA05G**
2”	105 (4.13)	38 (1.50)	10 (0.39)	0.08 (0.18)	**NTADA06G**
2-1/2”	111 (4.37)	38 (1.50)	10 (0.39)	0.11 (0.24)	**NTADA07G**
3”	131 (5.16)	38 (1.50)	10 (0.39)	0.12 (0.26)	**NTADA08G**
3-1/2”	151 (5.94)	38 (1.50)	10 (0.39)	0.14 (0.31)	**NTADA09G**
4”	160 (6.30)	38 (1.50)	10 (0.39)	0.16 (0.35)	**NTADA10G**

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Nutsteel® NTTF Flexible Tubing

Industrial Installations

Applications

- Used for passage of wires and cables in installations where slight curves are required.

Features

- Comes assembled with two connectors on the ends.
- BSP threads standard.
- Standard overall length: 1000 mm (39.37”).
- Only stationary male connectors are supplied with lock washer made of the same material.

Standard Materials

- Tube: galvanized steel tape, coated on the outside with PVC
- Connectors: zinc-plated brass

Options

- For NPT threads, replace the letter **B** with the letter **N** in the 7th position, example: NTTF01**N**1000MFFF.
- To order with an overall length of 700 mm (27.56”), replace the numbers **1000** with the numbers **0700** in the 8th thru 11th positions, example: NTTF01B**0700**MFFF.
- Different sizes can be supplied upon request.

NBR IEC Certifications and Compliances

- Protection Rating: IP55
- Ambient Temperature: -5 °C to +60 °C (+23 °F to +140 °F)

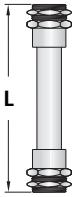


Stationary Male — Stationary Female



Ø Thread	L mm (in)	Weight kg (lb)	Catalog Number ①②
1/2”	1000 (39.37)	0.38 (0.84)	**NTTF01B1000MFFF**
3/4”	1000 (39.37)	0.55 (1.21)	**NTTF02B1000MFFF**
1”	1000 (39.37)	0.85 (1.87)	**NTTF03B1000MFFF**
1-1/4”	1000 (39.37)	1.20 (2.65)	**NTTF04B1000MFFF**
1-1/2”	1000 (39.37)	1.44 (3.17)	**NTTF05B1000MFFF**
2”	1000 (39.37)	2.00 (4.41)	**NTTF06B1000MFFF**
2-1/2”	1000 (39.37)	2.85 (6.28)	**NTTF07B1000MFFF**
3”	1000 (39.37)	3.85 (8.49)	**NTTF08B1000MFFF**
4”	1000 (39.37)	6.42 (14.15)	**NTTF10B1000MFFF**

Stationary Male — Stationary Male



Ø Thread	L mm (in)	Weight kg (lb)	Catalog Number ①②
1/2”	1000 (39.37)	0.40 (0.88)	**NTTF01B1000MFMF**
3/4”	1000 (39.37)	0.57 (1.26)	**NTTF02B1000MFMF**
1”	1000 (39.37)	0.88 (1.94)	**NTTF03B1000MFMF**
1-1/4”	1000 (39.37)	1.25 (2.76)	**NTTF04B1000MFMF**
1-1/2”	1000 (39.37)	1.50 (3.31)	**NTTF05B1000MFMF**
2”	1000 (39.37)	2.15 (4.74)	**NTTF06B1000MFMF**
2-1/2”	1000 (39.37)	2.95 (6.50)	**NTTF07B1000MFMF**
3”	1000 (39.37)	4.00 (8.82)	**NTTF08B1000MFMF**
4”	1000 (39.37)	6.28 (13.85)	**NTTF10B1000MFMF**

*① For NPT threads, replace the letter **B** with the letter **N** in the 7th position, example: NTTF01**N**1000MFFF.*
*② To order with an overall length of 700 mm (27.56”), replace the numbers **1000** with the numbers **0700** in the 8th thru 11th positions, example: NTTF01B**0700**MFFF.*

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Rotating Male — Rotating Female



Ø Thread	L mm (in)	Weight kg (lb)	Catalog Number ①②
1/2”	1000 (39.37)	0.41 (0.90)	**NTTF01B1000MGFG**
3/4”	1000 (39.37)	0.57 (1.26)	**NTTF02B1000MGFG**
1”	1000 (39.37)	0.89 (1.96)	**NTTF03B1000MGFG**
1-1/4”	1000 (39.37)	1.34 (2.95)	**NTTF04B1000MGFG**
1-1/2”	1000 (39.37)	1.57 (3.46)	**NTTF05B1000MGFG**
2”	1000 (39.37)	2.16 (4.76)	**NTTF06B1000MGFG**
2-1/2”	1000 (39.37)	3.25 (7.17)	**NTTF07B1000MGFG**
3”	1000 (39.37)	4.23 (9.33)	**NTTF08B1000MGFG**
4”	1000 (39.37)	6.90 (15.21)	**NTTF10B1000MGFG**

Rotating Male — Rotating Male



Ø Thread	L mm (in)	Weight kg (lb)	Catalog Number ①②
1/2”	1000 (39.37)	0.43 (0.95)	**NTTF01B1000MGMG**
3/4”	1000 (39.37)	0.59 (1.30)	**NTTF02B1000MGMG**
1”	1000 (39.37)	0.91 (2.01)	**NTTF03B1000MGMG**
1-1/4”	1000 (39.37)	1.30 (2.87)	**NTTF04B1000MGMG**
1-1/2”	1000 (39.37)	1.55 (3.42)	**NTTF05B1000MGMG**
2”	1000 (39.37)	2.08 (4.59)	**NTTF06B1000MGMG**
2-1/2”	1000 (39.37)	3.30 (7.28)	**NTTF07B1000MGMG**
3”	1000 (39.37)	4.37 (9.63)	**NTTF08B1000MGMG**
4”	1000 (39.37)	7.00 (15.43)	**NTTF10B1000MGMG**

Rotating Male — Stationary Female



Ø Thread	L mm (in)	Weight kg (lb)	Catalog Number ①②
1/2”	1000 (39.37)	0.40 (0.88)	**NTTF01B1000MGFF**
3/4”	1000 (39.37)	0.56 (1.23)	**NTTF02B1000MGFF**
1”	1000 (39.37)	0.86 (1.90)	**NTTF03B1000MGFF**
1-1/4”	1000 (39.37)	1.24 (2.73)	**NTTF04B1000MGFF**
1-1/2”	1000 (39.37)	1.46 (3.22)	**NTTF05B1000MGFF**
2”	1000 (39.37)	2.00 (4.41)	**NTTF06B1000MGFF**
2-1/2”	1000 (39.37)	3.07 (6.77)	**NTTF07B1000MGFF**
3”	1000 (39.37)	4.04 (8.91)	**NTTF08B1000MGFF**
4”	1000 (39.37)	6.70 (14.77)	**NTTF10B1000MGFF**

Rotating Male — Stationary Male



Ø Thread	L mm (in)	Weight kg (lb)	Catalog Number ①②
1/2”	1000 (39.37)	0.41 (0.90)	**NTTF01B1000MGMF**
3/4”	1000 (39.37)	0.58 (1.28)	**NTTF02B1000MGMF**
1”	1000 (39.37)	0.90 (1.98)	**NTTF03B1000MGMF**
1-1/4”	1000 (39.37)	1.28 (2.82)	**NTTF04B1000MGMF**
1-1/2”	1000 (39.37)	1.53 (3.37)	**NTTF05B1000MGMF**
2”	1000 (39.37)	2.12 (4.67)	**NTTF06B1000MGMF**
2-1/2”	1000 (39.37)	3.13 (6.90)	**NTTF07B1000MGMF**
3”	1000 (39.37)	4.18 (9.22)	**NTTF08B1000MGMF**
4”	1000 (39.37)	6.64 (14.64)	**NTTF10B1000MGMF**

*① For NPT threads, replace the letter **B** with the letter **N** in the 7th position, example: NTTF01**N**1000MFFF.*
*② To order with an overall length of 700 mm (27.56”), replace the numbers **1000** with the numbers **0700** in the 8th thru 11th positions, example: NTTF01B**0700**MFFF.*

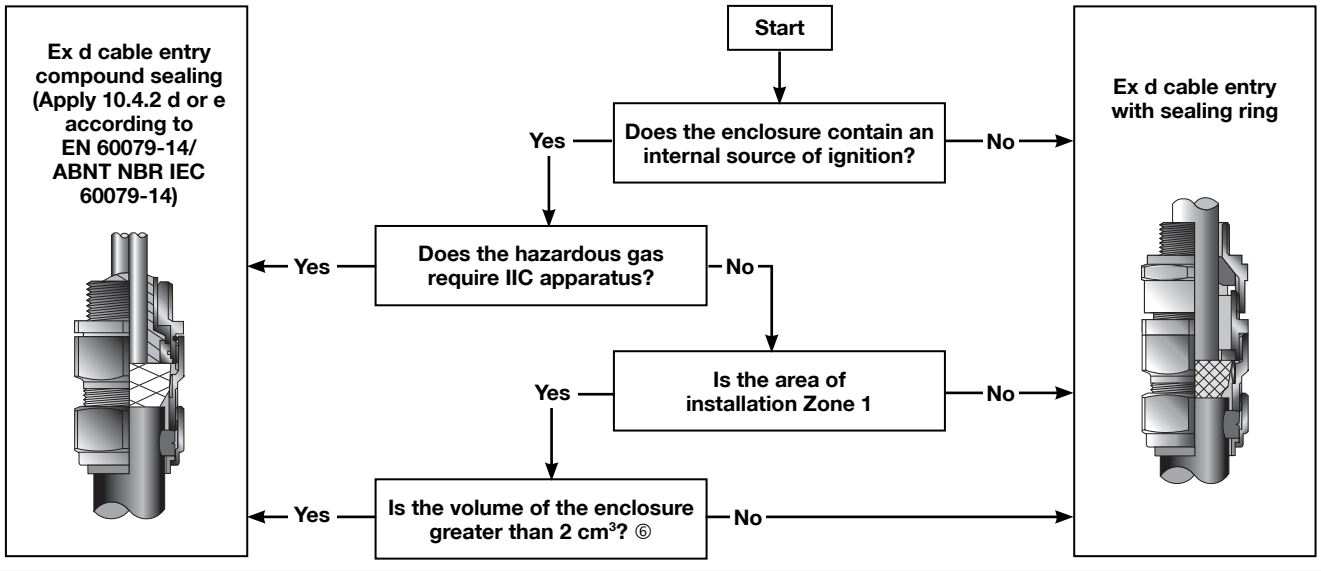
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Selection Chart — Certifications

Type		Series	NEC/ CEC	ATEX/ IEC(Ex)	NBR IEC	Material	Non-Armored Cables	Armored Cables		
								Wire	Braid	Tape
Neoprene Seal	"e" or "i"	Ex e		X	X	Thermoplastic elastomer	Yes ②		Yes	Yes
Elastomer Seal	Non-Hazardous	A2	X	X		Brass, fully nickel plated	Yes		Yes ②	
	"d" and "e"	A2F	X	X	X	Brass, fully nickel plated	Yes		Yes ②	
		A2FRC			X	Brass, fully nickel plated	Yes ③			
		T3	X	X	X	Brass, fully nickel plated	Yes ②	Yes	Yes	Yes
		E1FX		X	X	Brass, fully nickel plated	Yes ②		Yes	Yes
		E1FW		X	X	Brass, fully nickel plated	Yes ②	Yes		
Compound Seal	UL	PXSS2K PXSS2K-REX	X	X	X	Brass, fully nickel plated	Yes ④			
		PX2K	X	X	X	Brass, fully nickel plated	Yes ②⑤	Yes	Yes	Yes
		PX2KX ① PX2KX-REX ①	X	X		Brass, fully nickel plated	Yes ②		Yes	
Marine		C2KX	X	X		Brass, fully nickel plated	Yes			Yes

Selection Guide

Selection of cable entry for Ex d flameproof enclosure according to electrical installations IEC 60079-14/ABNT NBR IEC 60079-14.



Note: Cable must be substantially compact and circular with an extruding bedding, and if any filters are used they are Non-Hygroscopic.
① Also ATEX and Marine rated.
② Applicable to ATEX/IEC(Ex) applications only.
③ Non-armored cables — through rigid conduit.
④ Non-armored cables — tray and extra hard/ usage cord.
⑤ Non-armored cables — SWA armored tray.
⑥ dm^3: 1 cubic decimeter equals approximately 61 cubic inches.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Ex e Series Polyamide Cable Glands

For Non-Armored Cable – Increased Safety for Hazardous Areas

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 / 68

NBR IEC:
Zone 1 and 2
Ex e II
IP66 / 68 (5 bar)

Applications

- Ex e Certified
  - — For non-armored cables certified for enclosures with the following protection modes:
    - – Ex e Increased safety
    - – Ex nR Restricted breathing
    - – D Dust environment
  - — Hazardous areas (gas and dust)
  - — On-shore and off-shore
- Weatherproof IP68 or Ex i
  - — For non-armored cables for intrinsic safety Ex i applications in hazardous areas (Gas and Dust).

Features

- Ex e Certified
  - — Black polyamide body
  - — Weatherproof elastomer gasket
  - — Supplied with sealing gasket
- Weatherproof IP68 or Ex i
  - — Blue polyamide body Ral 5012
  - — Supplied with polyamide clamping ring
  - — Weatherproof elastomer gasket
  - — Supplied with sealing gasket

Materials

- Ex e Certified
  - — Body: polyamide
  - — Weatheproof gasket: thermoplastic elastomer
  - — Entry thread seal: neoprene
- Weatherproof IP68 or Ex i
  - — Body: polyamide
  - — Weatherproof gasket: thermoplastic elastomer
  - — Entry thread seal: neoprene

ATEX Certifications and Compliances

- Certification Type EEXe
- Zones 1 and 2, Gas
  - — ATEX Protection: Ex e II
- Zones 21 and 22, Dust
  - — ATEX Protection: Ex tD A21

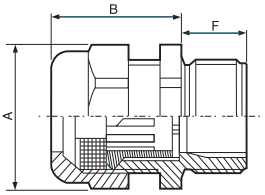


Ex e Certified



Weatherproof IP68

Dimensions in Millimeters (Inches)



- Conforming to ATEX 94/9/CE: Ⓔx II 2 GD
- Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- CE Declaration of Conformity: 50233
- ATEX Certificate: LCIE 99 ATEX 6030X
- IEC Certificate: LCIE Ex.03.005U
- Ingress Protection (solid and liquid): IP66 (Ex e version), IP68 (Weatherproof)
- EN/IEC Standards: 60079-0; 60079-7; 60079-31
- Other Standards: ISO 965/I/III (metric thread), 60529

NBR IEC Brazilian Certifications and Compliances

- Certification Type EEx e
- Zones 1 and 2, Gas
  - — IEC Marking: Ex e II
- INMETRO Ordinance: 179
- INMETRO Certificate: BR 230662-X
- Ingress Protection (solid and liquid): IP66/68 (5 bar)
- Ex Standards: ABNT NBR IEC 60079-0, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)

Metric Thread	Thread Pitch (mm)	Cable Capacity — mm (in) Min.	Cable Capacity — mm (in) Max.	Flat — mm (in) A	Length — mm (in) B	mm (in) F	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①	Pack
Ex e Certified										
M16	1.5	3.0 (0.12)	8.5 (0.33)	19.0 (0.75)	24.0 (0.94)	15.0 (0.59)	0.015 (0.03)	0.160 (9.76)	**095756**	10
M20	1.5	6.5 (0.26)	14.5 (0.57)	27.0 (1.06)	30.0 (1.18)	15.0 (0.59)	0.021 (0.05)	0.160 (9.76)	**095605**	10
M25	1.5	8.0 (0.31)	18.5 (0.73)	33.0 (1.30)	33.0 (1.30)	15.0 (0.59)	0.032 (0.07)	0.160 (9.76)	**095606**	10
M32	1.5	10.0 (0.39)	25.0 (0.98)	42.0 (1.65)	43.0 (1.69)	15.0 (0.59)	0.061 (0.13)	0.440 (26.85)	**095757**	10
M40	1.5	24.0 (0.94)	34.0 (1.34)	55.0 (2.17)	47.0 (1.85)	15.0 (0.59)	0.072 (0.16)	0.072 (4.39)	**095758**	1
M50	1.5	28.0 (1.10)	42.0 (1.65)	65.0 (2.56)	49.0 (1.93)	15.0 (0.59)	0.124 (0.27)	0.072 (4.39)	**095759**	1
Weatherproof IP68										
M16	1.5	2.5 (0.10)	8.0 (0.31)	19.0 (0.75)	27.0 (1.06)	15.0 (0.59)	0.013 (0.03)	0.160 (9.76)	**095800**	10
M20	1.5	5.0 (0.20)	12.0 (0.47)	24.0 (0.94)	30.0 (1.18)	15.0 (0.59)	0.017 (0.04)	0.160 (9.76)	**095801**	10
M25	1.5	7.0 (0.28)	14.0 (0.55)	27.0 (1.06)	35.0 (1.38)	15.0 (0.59)	0.020 (0.04)	0.160 (9.76)	**095802**	10
M32	1.5	14.0 (0.55)	25.0 (0.98)	42.0 (1.65)	42.0 (1.65)	15.0 (0.59)	0.051 (0.11)	0.440 (26.85)	**095803**	10
M40	1.5	18.0 (0.71)	32.0 (1.26)	53.0 (2.09)	52.0 (2.05)	15.0 (0.59)	0.072 (0.16)	0.072 (4.39)	**095804**	1
M50	1.5	24.0 (0.94)	38.5 (1.52)	60.0 (2.36)	55.0 (2.17)	15.0 (0.59)	0.100 (0.22)	0.072 (4.39)	**095805**	1

① *For Locknut, see Cable Gland Accessories section.*
④ *For Nutsteel NBR IEC Brazilian Certified version, add an* ***NA*** *to the beginning of the catalog number, i.e.* ***NA****095756.*

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A2F Series Nickel Plated Brass Cable Glands

With Elastomer Seal for Unarmored Cables – Increased Safety and Flameproof ①

ATEX/IECEx:
ATEX II 2 GD
Ex d ① IIC
Ex e II
Ex nR II
Ex tD A21

ATEX/IECEx:
Zone 1 and 2, Zone 21 and 22
Gas Groups IIA, IIB and IIC
ATEX IM2
Ex d I
Ex e I

NBR IEC:
Zones 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66W

Applications

- Cable glands for unarmored cable certified for enclosures with the following protection modes:
  — Ex d flameproof IIB or IIC (as per §10.4.2 of IEC 60079-14)
  — Ex e increased safety
  — Ex nR restricted breathing
  — D dust environment
- Hazardous areas (gas and dust)
- Onshore and offshore

Features

- Elastomer displacement seal for unarmored cable provides a combined flameproof and weatherproof seal on the outer sheath of the cable.

Standard Materials

- Body: nickel plated brass (suffix 5)
- Seal: LSF (Low Smoke Fume) thermoplastic elastomer

Options

- 316L stainless steel version: replace last digit **5** with **4**
- Aluminum: replace last digit **5** with **1**
- Shroud, locknut, earth tag, entry thread seal, serrated washers, adaptors and reducers: see *Cable Gland Accessories* pages

CEC Certifications and Compliances

- CSA Certified: 101909
- CSA Standard: C22.2 No. 174, CAN/CSA E60079-0, CAN/CSA E60079-1, CAN/CSA E60079-7

ATEX/IECEx Certifications and Compliances

- Certification Type A2F
- Zones 1 and 2, Gas
  — ATEX/IEC Protection: Ex d IIC, Ex e II, Ex nR II
- Zones 21 and 22, Dust
  — ATEX/IEC Protection: Ex tD A21
- Conforming to ATEX 94/9/CE: Ⓔx II 2 GD
- Ambient Temperature: -60 °C to +130 °C (-76 °F to +266 °F)
- CE Declaration of Conformity: DC07001
- ATEX Certificate: SIRA 06 ATEX 1097X
- IECEx Certificate: IECEx SIR 06.0043X
- Other Certifications: GOST, Lloyds, DNV, ABS
- Ingress Protection (solid and liquid): IP66 / IP68 (10m)
- EN/IEC Standards: 60079-0; 60079-1; 60079-7; 60079-15; 60079-31; 61241-0; 61241-1
- Product Standards: BS 6121, ANSI-ASME B1.20.1 (conical thread); ISO 965/I/III (metric thread)

Cable Gland Size	Metric Thread	Thread Pitch (mm)	Catalog Numbers ② Standard Metric ③	NPT Thread	Standard NPT ③④	NPT Thread	Optional NPT Thread ③④
20S16	M20	1.5	**2016A2F5**	1/2"	**2016A2F0505**	3/4"	**2016A2F0755**
20S	M20	1.5	**20SA2F5**	1/2"	**20SA2F0505**	3/4"	**20SA2F0755**
20	M20	1.5	**20A2F5**	1/2"	**20A2F0505**	3/4"	**20A2F0755**
25	M25	1.5	**25A2F5**	3/4"	**25A2F0755**	1"	**25A2F1005**
32	M32	1.5	**32A2F5**	1"	**32A2F1005**	1-1/4"	**32A2F1255**
40	M40	1.5	**40A2F5**	1-1/4"	**40A2F1255**	1-1/2"	**40A2F1505**
50S	M50	1.5	**50SA2F5**	1-1/2"	**50SA2F1505**	2"	**50SA2F2005**
50	M50	1.5	**50A2F5**	2"	**50A2F2005**	2-1/2"	**50A2F2505**
63S	M63	1.5	**63SA2F5**	2"	**63SA2F2005**	2-1/2"	**63SA2F2505**
63	M63	1.5	**63A2F5**	2-1/2"	**63A2F2505**	3"	**63A2F3005**
75S	M75	1.5	**75SA2F5**	2-1/2"	**75SA2F2505**	3"	**75SA2F3005**
75	M75	1.5	**75A2F5**	3"	**75A2F3005**	3-1/2"	**75A2F3505**
90	M90	2.5	**90A2F5**	3"	**90A2F3005**	3-1/2"	**90A2F3505**
100	M100	2.5	**100A2F5**	4"	**100A2F4005**	—	—

① The A2F Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 and Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14. Refer to IEC 60079-14 and ABNT NBR IEC 60079-14 at the beginning of the Cable Glands Section.
*② For Nutsteel NBR IEC Brazilian Certified version add an **N** to the beginning of the catalog number, i.e. **N**2016A2F0505.*
③ Entry thread seal not supplied, see Cable Gland Accessories and Tools. For Nutsteel NBR IEC Brazilian Certified versions, contact your local sales representative.
*④ For Nutsteel NBR IEC Brazilian Certified version with BSP threads, add an **N** to the beginning of the catalog number and add a **B** after the A2F in the catalog number, i.e. **N**2016A2F**B**0505.*

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A2F Series Nickel Plated Brass Cable Glands

With Elastomer Seal for Unarmored Cables – Increased Safety and Flameproof. Ex d ①

ATEX/IECEx:
ATEX II 2 GD
Ex d ① IIC
Ex e II
Ex nR II
Ex tD A21

ATEX/IECEx:
Zone 1 and 2, Zone 21 and 22
Gas Groups IIA, IIB and IIC
ATEX IM2
Ex d I
Ex e I

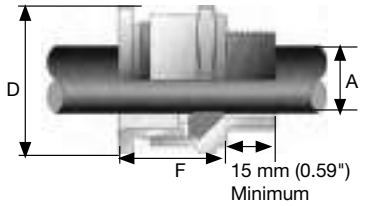
NBR IEC:
Zones 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66W

NBR IEC Brazilian Certifications and Compliances

- Certification Type A2F
- Zones 1 and 2, Gas
  — IEC Marking: Ex d IIC Gb, Ex e IIC Gb
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.0619-X
- Ingress Protection (solid and liquid): IP66; Supplementary character (marine protection): W
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)



Dimensions in Millimeters (Inches)



Cable Gland Size	Cable Capacity — mm (in) A		Dimensions — mm (in) D			Weight kg (lb)
	Min	Max	Corner	Flat	Length — mm (in) F	
20S16	3.2 (0.13)	8.7 (0.34)	26.6 (1.05)	24.0 (0.94)	21.0 (0.83)	0.07 (0.15)
20S	6.1 (0.24)	11.7 (0.46)	26.6 (1.05)	24.0 (0.94)	21.0 (0.83)	0.06 (0.13)
20	6.5 (0.26)	14.0 (0.55)	31.0 (1.22)	27.0 (1.06)	24.0 (0.94)	0.06 (0.13)
25	11.1 (0.44)	20.0 (0.79)	39.0 (1.54)	36.0 (1.42)	26.0 (1.02)	0.12 (0.26)
32	17.0 (0.67)	26.3 (1.04)	45.0 (1.77)	41.0 (1.61)	27.0 (1.06)	0.13 (0.29)
40	23.5 (0.93)	32.2 (1.27)	53.5 (2.11)	50.0 (1.97)	28.0 (1.10)	0.18 (0.40)
50S	31.0 (1.22)	38.2 (1.50)	61.0 (2.40)	55.0 (2.17)	29.0 (1.14)	0.24 (0.53)
50	35.6 (1.40)	44.1 (1.74)	66.0 (2.60)	60.0 (2.36)	30.0 (1.18)	0.24 (0.53)
63S	41.5 (1.64)	50.0 (1.97)	77.5 (3.05)	70.0 (2.76)	30.0 (1.18)	0.37 (0.82)
63	47.2 (1.86)	56.0 (2.20)	84.0 (3.31)	75.0 (2.95)	30.0 (1.18)	0.36 (0.79)
75S	54.0 (2.13)	62.0 (2.44)	87.0 (3.43)	79.0 (3.11)	32.0 (1.26)	0.42 (0.93)
75	61.1 (2.41)	68.0 (2.68)	94.0 (3.70)	84.0 (3.31)	32.0 (1.26)	0.39 (0.86)
90	66.6 (2.62)	80.0 (3.15)	120.0 (4.72)	108.0 (4.25)	44.0 (1.73)	1.48 (3.26)
100	76.0 (2.99)	91.0 (3.58)	138.0 (5.43)	122.0 (4.80)	48.0 (1.89)	1.62 (3.57)

① *The A2F Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 and Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14. Refer to IEC 60079-14 and ABNT NBR IEC 60079-14 at the beginning of the Cable Glands Section.*

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A2FRC Series Nickel Plated Brass Cable Glands

With Elastomer Seal for Unarmored Cables – Increased Safety and Flameproof for Conduit Connection ①

NBR IEC:
Zones 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66W

Applications

- Cable glands for unarmored cable certified for enclosures with the following protection modes:
  — Ex d flameproof IIB or IIC (as per §10.4.2 of IEC 60079-14)
  — Ex e increased safety
  — Ex nR restricted breathing
  — D dust environment
- Hazardous areas (gas and dust)
- Onshore and offshore

Features

- Elastomer displacement seal for unarmored cable provides a combined flameproof and weatherproof seal on the outer sheath of the cable.

Standard Materials

- Gland: brass, fully nickel plated
- Seal: LSF (low smoke fumes) thermoplastic elastomer

Options

- Aluminum: replace last digit **5** with **1**
- 316L stainless steel: replace last digit **5** with **4**
- Shroud, locknut, earth tag, entry thread seal, serrated washers, adaptors and reducers: see *Cable Gland Accessories* pages

NBR IEC Brazilian Certifications and Compliances

- Certification Type A2FRC
  — Gas, Zones 1 and 2
  — IEC Marking: Ex d IIC Gb, Ex e IIC Gb
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.0880-X
- Ingress Protection (solid and liquid): IP66; Supplementary character (marine protection): W
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)

Cable Gland Size	Thread Size — mm (in) C			Catalog Numbers ②			
	Metric	NPT/BSP	Optional NPT/BSP	Metric Male Thread + NPT Female Thread	Metric Male Thread + BSP Female Thread	Male NPT Thread + Female NPT Threads	Male BSP Thread + Female BSP Threads
20S16	M20	1/2"	3/4"	**N2016A2FRC2M1N5**	**N2016A2FRC2M1B5**	**N2016A2FRC1N1N5**	**N2016A2FRC1B1B5**
20S	M20	1/2"	3/4"	**N20SA2FRC2M1N5**	**N20SA2FRC2M1B5**	**N20SA2FRC1N1N5**	**N20SA2FRC1B1B5**
20	M20	1/2"	3/4"	**N20A2FRC2M1N5**	**N20A2FRC2M1B5**	**N20A2FRC1N1N5**	**N20A2FRC1B1B5**
25	M25	3/4"	1"	**N25A2FRC3M2N5**	**N25A2FRC3M2B5**	**N25A2FRC2N2N5**	**N25A2FRC2B2B5**
32	M32	1"	1-1/4"	**N32A2FRC4M3N5**	**N32A2FRC4M3B5**	**N32A2FRC3N3N5**	**N32A2FRC3B3B5**
40	M40	1-1/4"	1-1/2"	**N40A2FRC5M4N5**	**N40A2FRC5M4B5**	**N40A2FRC4N4N5**	**N40A2FRC4B4B5**
50S	M50	1-1/2"	2"	**N50SA2FRC6M5N5**	**N50SA2FRC6M5B5**	**N50SA2FRC5N5N5**	**N50SA2FRC5B5B5**
50	M50	2"	2-1/2"	**N50A2FRC6M6N5**	**N50A2FRC6M6B5**	**N50A2FRC6N6N5**	**N50A2FRC6B6B5**
63S	M63	2"	2-1/2"	**N63SA2FRC7M6N5**	**N63SA2FRC7M6B5**	**N63SA2FRC6N6N5**	**N63SA2FRC6B6B5**
63	M63	2-1/2"	3"	**N63A2FRC7M7N5**	**N63A2FRC7M7B5**	**N63A2FRC7N7N5**	**N63A2FRC7B7B5**
75S	M75	2-1/2"	3"	**N75SA2FRC8M7N5**	**N75SA2FRC8M7B5**	**N75SA2FRC7N7N5**	**N75SA2FRC7B7B5**
75	M75	3"	3-1/2"	**N75A2FRC8M8N5**	**N75A2FRC8M8B5**	**N75A2FRC8N8N5**	**N75A2FRC8B8B5**
90	M90	3"	3-1/2"	**N90A2FRC9M8N5**	**N90A2FRC9M8B5**	**N90A2FRC8N8N5**	**N90A2FRC8B8B5**

① *The A2F Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 and Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14. Refer to ABNT NBR IEC 60079-14 at the beginning of the Cable Glands Section.*

② *Entry thread seal not supplied, see Cable Gland Accessories and Tools. For Nutsteel NBR IEC Brazilian Certified versions, contact your local sales representative.*

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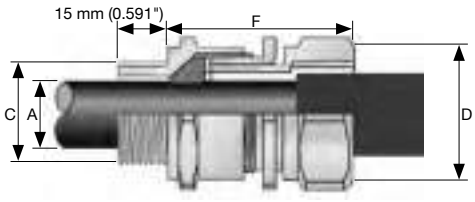
A2FRC Series Nickel Plated Brass Cable Glands

With Elastomer Seal for Unarmored Cables – Increased Safety and Flameproof for Conduit Connection ①

NBR IEC:
Zones 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66W



Dimensions in Millimeters (Inches)



Cable Gland Size	Cable Capacity — mm (in) A		Dimensions — mm (in) D			Weight kg (lb)
	Min	Max	Corner	Flat	Length — mm (in) F	
20S16	3.2 (0.13)	8.7 (0.34)	26.6 (1.05)	24.0 (0.94)	21.0 (0.827)	60 (2.12)
20S	6.1 (0.24)	11.7 (0.46)	26.6 (1.05)	24.0 (0.94)	21.0 (0.827)	75 (2.65)
20	6.5 (0.26)	14.0 (0.55)	31.0 (1.22)	27.0 (1.06)	24.0 (0.945)	100 (3.53)
25	11.1 (0.44)	20.0 (0.79)	39.0 (1.54)	36.0 (1.42)	26.0 (1.024)	232 (8.18)
32	17.0 (0.67)	26.3 (1.04)	45.0 (1.77)	41.0 (1.61)	27.0 (1.063)	400 (14.11)
40	23.5 (0.93)	32.2 (1.27)	53.5 (2.11)	50.0 (1.97)	28.0 (1.102)	560 (19.75)
50S	31.0 (1.22)	38.2 (1.50)	61.0 (2.40)	55.0 (2.17)	29.0 (1.142)	600 (21.16)
50	35.6 (1.40)	44.1 (1.74)	66.0 (2.60)	60.0 (2.36)	30.0 (1.181)	590 (20.81)
63S	41.5 (1.64)	50.0 (1.97)	77.5 (3.05)	70.0 (2.76)	30.0 (1.181)	720 (25.40)
63	47.2 (1.86)	56.0 (2.20)	84.0 (3.31)	75.0 (2.95)	30.0 (1.181)	690 (24.34)
75S	54.0 (2.13)	62.0 (2.44)	87.0 (3.43)	79.0 (3.11)	32.0 (1.260)	850 (29.98)
75	61.1 (2.41)	68.0 (2.68)	94.0 (3.70)	84.0 (3.31)	32.0 (1.260)	800 (28.22)
90	66.6 (2.62)	80.0 (3.15)	120.0 (4.72)	108.0 (4.25)	44.0 (1.732)	1120 (39.51)

① *The A2F Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 and Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14. Refer to ABNT NBR IEC 60079-14 at the beginning of the Cable Glands Section.*

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T3 Series Nickel Plated Brass Cable Glands

With Elastomer Seal for Armored Cables

Increased Safety and Flameproof. Ex d ①.

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class II, Division 2, Groups E, F, G
Class III
NEMA 3, 4, 4X

NEC/CEC:
Class I, Zone I, AEx e II / Ex d IIC
Class I, Zone 2, AEx e II / Ex e II
IP66, IP67 ①, IP68 ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
ATEX / IECEx
IP66 / 68 (10 m)

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP68

Applications

- Cable gland for all types of armored cable certified for enclosures with the following protection modes:
  - — Ex d flameproof IIB or IIC (as per §10.4.2 of IEC 60079-14) (Refer to ATX Guide for Use of Electrical Products in Hazardous Locations)
  - — Ex e increased safety.
  - — Ex nR restricted breathing.
  - — Ex d flameproof.
- Hazardous areas (gas and dust).
- Onshore and offshore.

Features

- Cable gland with elastomer seal for use in hazardous areas with all types of armored cable.
- This product utilizes a unique Compensating Displacement Seal (CDS) system which provides full compatibility with restricted breathing equipment.
- The CDS system is designed to alleviate any pressure on soft bedded cables.
- The cable gland allows mechanical cable retention and earth continuity via armor termination.
- A reversible armor cone and AnyWay universal clamping ring arrangement allows the cable to be easily disconnected from equipment.
- The cable gland is IP66/68 rated with deluge protection to DTS01: 91.
- Inspection of the armor can be carried out while still maintaining the protection mode of the enclosure.

Standard Materials

- Body: nickel plated brass
- Seal: LSF (Low Smoke Fume) thermoplastic elastomer
  - — Inner CDS system and LRS (Load Retention Seal) outer seal

Options

- 316L stainless steel version: replace last digit **5** with **4**
- Lead sheath version: replace **T3** with **T3PB**
- Aluminum: replace last digit **5** with **1**
- Shroud, locknut, earth tag, entry thread seal, serrated washers, adaptors and reducers: see *Cable Gland Accessories* pages.

NEC/CEC Certifications and Compliances

- UL Standard: 2225
- CSA Standard: C22.2 No. 174
- CSA Certified: 101909

ATEX/IECEx Certifications and Compliances

- Certification Type T3CDS
- Zones 1 and 2, Gas
  - — ATEX/IEC Protection: Ex d IIC, Ex e II, Ex nR II

Cable Gland Size	Metric Thread	Thread Pitch (mm)	Catalog Numbers ② Standard Metric ③	NPT Thread	Standard NPT ③④	NPT Thread	Optional NPT Thread ③④	Weight kg (lb)
20S16	M20	1.5	**2016T35**	1/2"	**2016T30505**	3/4"	**2016T30755**	0.17 (0.37)
20S	M20	1.5	**20ST35**	1/2"	**20ST30505**	3/4"	**20ST30755**	0.17 (0.37)
20	M20	1.5	**20T35**	1/2"	**20T30505**	3/4"	**20T30755**	0.26 (0.57)
25S	M25	1.5	**25ST35**	3/4"	**25ST30755**	1"	**25ST31005**	0.38 (0.84)
25	M25	1.5	**25T35**	3/4"	**25T30755**	1"	**25T31005**	0.38 (0.84)
32	M32	1.5	**32T35**	1"	**32T31005**	1-1/4"	**32T31255**	0.56 (1.23)
40	M40	1.5	**40T35**	1-1/4"	**40T31255**	1-1/2"	**40T31505**	0.85 (1.87)
50S	M50	1.5	**50ST35**	1-1/2"	**50ST31505**	2"	**50ST32005**	1.05 (2.31)
50	M50	1.5	**50T35**	2"	**50T32005**	2-1/2"	**50T32505**	1.52 (3.35)
63S	M63	1.5	**63ST35**	2"	**63ST32005**	2-1/2"	**63ST32505**	1.75 (3.86)
63	M63	1.5	**63T35**	2-1/2"	**63T32505**	3"	**63T33005**	1.68 (3.70)
75S	M75	1.5	**75ST35**	2-1/2"	**75ST32505**	3"	**75ST33005**	2.34 (5.16)
75	M75	1.5	**75T35**	3"	**75T33005**	3-1/2"	**75T33505**	3.20 (7.05)
90	M90	2.5	**90T35**	3"	**90T33005**	3-1/2"	**90T33505**	5.10 (11.24)
100	M100	2.5	**100T35**	4"	**100T34005**	—	—	6.30 (13.89)

① The A2F Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 and Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14. Refer to IEC 60079-14 and ABNT NBR IEC 60079-14 at the beginning of the Cable Glands Section.

*② For Nutsteel NBR IEC Brazilian Certified version add an **N** to the beginning of the catalog number, i.e. **N**2016T30505.*

③ Entry thread seal not supplied, see Cable Gland Accessories and Tools. For Nutsteel NBR IEC Brazilian Certified versions, contact your local sales representative.

*④ For Nutsteel NBR IEC Brazilian Certified version with BSP threads, add an **N** to the beginning of the catalog number and add a **B** after the T3 in the catalog number, i.e. **N**2016T3**B**0505.*

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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T3 Series Nickel Plated Brass Cable Glands

With Elastomer Seal for Armored Cables

Increased Safety and Flameproof. Ex d ①.

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class II, Division 2, Groups E, F, G
Class III
NEMA 3, 4, 4X

NEC/CEC:
Class I, Zone I, AEx e II / Ex d IIC
Class I, Zone 2, AEx e II / Ex e II
IP66, IP67 ①, IP68 ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
ATEX / IECEx
IP66 / 68 (10 m)

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP68

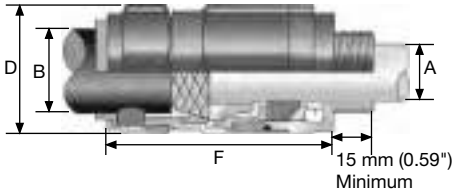
- Zones 21 and 22, Dust
  — ATEX/IEC Protection: Ex tD A21
- Conforming to ATEX 94/9/CE: Ⓔx II 2 GD
- Ambient Temperature: -60 °C to +130 °C (-76 °F to +266 °F)
- CE Declaration of Conformity: DC07001
- ATEX Certificate: SIRA 06 ATEX 1283X
- IECEx Certificate: IECEx SIR 07.005X
- Other Certifications: CSA, GOST, Lloyds, DNV, ABS
- Ingress Protection (solid and liquid): IP66 / IP68 (10m)
- IEC Standards: 60079-0; 60079-1; 60079-7; 60079-15; 60079-31; 61241-0; 61241-1
- Product Standards: BS 6121, ANSI-ASME B1.20.1 (conical thread); ISO 965/I/III (metric thread)

NBR IEC Brazilian Certifications and Compliances

- Certification Type T3CDS
- Zones 1 and 2, Gas
  — IEC Marking: Ex d IIC Gb, Ex e IIC Gb
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0374-X
- Ingress Protection (solid and liquid): IP68
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)



Dimensions in Millimeters (Inches)



Cable Gland Size	Cable Capacity — mm (in) Inner A Min	Inner A Max	Outer B Min	Outer B Max	Dimensions — mm (in) D Corner	D Flat	Length — mm (in) F	Weight kg (lb)
20S16	3.1 (0.12)	8.7 (0.34)	6.1 (0.24)	11.5 (0.45)	26.6 (1.05)	24.0 (0.94)	65.0 (2.56)	0.17 (0.37)
20S	6.1 (0.24)	11.7 (0.46)	9.5 (0.37)	15.9 (0.63)	26.6 (1.05)	24.0 (0.94)	64.0 (2.52)	0.17 (0.37)
20	6.5 (0.26)	14.0 (0.55)	12.5 (0.49)	20.9 (0.82)	33.3 (1.31)	30.5 (1.20)	63.0 (2.48)	0.26 (0.57)
25S	11.1 (0.44)	20.0 (0.79)	14.0 (0.55)	22.0 (0.87)	40.5 (1.59)	37.5 (1.48)	74.0 (2.91)	0.38 (0.84)
25	11.1 (0.44)	20.0 (0.79)	18.2 (0.72)	26.2 (1.03)	40.5 (1.59)	37.5 (1.48)	76.0 (2.99)	0.38 (0.84)
32	17.0 (0.67)	26.3 (1.04)	23.7 (0.93)	33.9 (1.33)	51.0 (2.01)	46.0 (1.81)	80.0 (3.15)	0.56 (1.23)
40	22.0 (0.87)	32.2 (1.27)	27.9 (1.10)	40.4 (1.59)	61.0 (2.40)	55.0 (2.17)	75.0 (2.95)	0.85 (1.87)
50S	29.5 (1.16)	38.2 (1.50)	35.2 (1.39)	46.7 (1.84)	66.5 (2.62)	60.0 (2.36)	93.0 (3.66)	1.05 (2.31)
50	35.6 (1.40)	44.1 (1.74)	40.4 (1.59)	53.1 (2.09)	78.6 (3.09)	70.0 (2.76)	100.0 (3.94)	1.52 (3.35)
63S	40.1 (1.58)	50.0 (1.97)	45.6 (1.80)	59.4 (2.34)	83.2 (3.28)	75.0 (2.95)	95.0 (3.74)	1.75 (3.86)
63	47.2 (1.86)	56.0 (2.20)	54.6 (2.15)	65.9 (2.59)	89.0 (3.50)	80.0 (3.15)	98.0 (3.86)	1.68 (3.70)
75S	52.8 (2.08)	62.0 (2.44)	59.0 (2.32)	72.1 (2.84)	101.6 (4.00)	89.0 (3.50)	105.0 (4.13)	2.34 (5.16)
75	59.1 (2.33)	68.0 (2.68)	66.7 (2.63)	78.5 (3.09)	111.1 (4.37)	99.0 (3.90)	112.0 (4.41)	3.20 (7.05)
90	66.6 (2.62)	80.0 (3.15)	76.2 (3.00)	90.4 (3.56)	128.6 (5.06)	114.0 (4.49)	132.0 (5.20)	5.10 (11.24)
100	76.0 (2.99)	91.0 (3.58)	86.1 (3.39)	101.5 (4.00)	138.0 (5.43)	123.0 (4.84)	160.0 (6.30)	6.30 (13.89)

① The T3CDS Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21 and Zone 22 provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14. Refer to IEC 60079-14 at the beginning of the Fittings section.

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PXSS2K Series Compound Barrier Type Cable Connector

Flame Proof

Unarmored, Tray, Shipboard and SO Type Cable.

NEC/CEC:
Class I, Division 1, Groups C, D
Class I, Division 2, Groups A ①, B ①, C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G

NEC/CEC:
Class I, Zone 1
NEMA 4X
IP66, IP67, IP68

IECEx:
Zone 1
AEx d IIC
AEx e II
Ex nR II, Ex tD
IP66, IP67, IP68

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66

Applications

- Flame proof Class I Division 2 cable connector suitable for unarmored, extra hard usage, tray (TC) and shipboard cables.

Features

- Connector provides an environmental seal on the cable jacket and an explosionproof compound barrier seal around the cable inner cores.
- The connector is UL Listed for NPT or Metric entry threads.
- Continuous operating temperature -60 °C to +100 °C (-76 °F to +212 °F).
- Sealing technique - displacement seal concept. Sealing area(s) - inner compound barrier and outer sheath.

Standard Materials

- Connector: brass fully nickel plated
- Seal: SOLO LSF (low smoke fumes) thermoplastic elastomer
- Epoxy putty.

Options

- Aluminum: replace last digit suffix **5** with **1**
- 316L stainless steel: replace last digit suffix **5** with **4**
- Shroud, locknut, earth tag, entry thread seal, serrated washers, adaptors and reducers: see *Cable Gland Accessories* pages.

NEC/CEC Certifications and Compliances

- UL Standard: 2225
- UL Listed: E161256
- CSA Standard: C22.2 No. 174
- CSA Certified: 101909

IECEx Certifications and Compliances

- Ingress Protection: IP66, IP67 and IP68, NEMA 4X
- Deluge Protection: To DTS01: 91
- Code of protection category: Ex e II, Ex nR II, Ex tD A21 IP66, Equipment Zone I, Zone 2, Zone 21 and Zone 22 – Gas Groups IIA, IIB, IIC

Cable Gland Size	Metric Thread	Thread Pitch (mm)	Catalog Numbers — mm (in) C Standard Metric ②③	NPT Thread	Standard NPT ②③④	NPT Thread	Optional NPT Thread ②③④	Minimum Thread Length — mm (in) E	Maximum Number Of Cores — mm (in)
20S16	M20	1.5	**20S16PX5**	1/2"	**20S16PX0505**	3/4"	**20S16PX0755**	15 (0.591)	12.6 (0.496)
20S	M20	1.5	**20SPX5**	1/2"	**20SPX0505**	3/4"	**20SPX0755**	15 (0.591)	12.6 (0.496)
20	M20	1.5	**20PX5**	1/2"	**20PX0505**	3/4"	**20PX0755**	15 (0.591)	12.6 (0.496)
20L	M20	1.5	**20LPX5**		**20LPX0505**		**20LPX0755**	15 (0.591)	12.6 (0.496)
25	M25	1.5	**25PX5**	3/4"	**25PX0755**	1"	**25PX1005**	15 (0.591)	17.5 (0.689)
32	M32	1.5	**32PX5**	1"	**32PX1005**	1-1/4"	**32PX1255**	15 (0.591)	23.6 (0.929)
32L	M32	1.5	**32LPX5**	1-1/4"	**32LPX1005**	1-1/2"	**32LPX1255**	15 (0.591)	23.6 (0.929)
40	M40	1.5	**40PX5**		**40PX1255**		**40PX1505**	15 (0.591)	30.0 (1.18)
50S	M50	1.5	**50SPX5**	1-1/2"	**50SPX1505**	2"	**50SPX2005**	15 (0.591)	36.6 (1.44)
50	M50	1.5	**50PX5**	2"	**50PX2005**	2-1/2"	**50PX2505**	15 (0.591)	41.0 (1.61)
63S	M63	1.5	**63SPX5**	2"	**63SPX2005**	2-1/2"	**63SPX2505**	15 (0.591)	47.9 (1.89)
63	M63	1.5	**63PX5**	2-1/2"	**63PX2505**	3"	**63PX3005**	15 (0.591)	53.7 (2.11)
75S	M75	1.5	**75SPX5**	2-1/2"	**75SPX2505**	3"	**75SPX3005**	15 (0.591)	59.8 (2.35)
75	M75	2.5	**75PX5**	3"	**75PX3005**	3-1/2"	**75PX3505**	15 (0.591)	64.3 (2.53)
90	M90	2.5	**90PX5**	3"	**90PX3505**	3-1/2"	**90PX4005**	15 (0.591)	75.3 (2.96)

① Increased thread engagement is required for gas groups A and B. Please specify gas group, thread form and size when ordering.
*② For Nutsteel NBR IEC Brazilian Certified version add an **N** to the beginning of the catalog number, i.e. **N**20S16PX0505.*
③ Entry thread seal not supplied, see Cable Gland Accessories and Tools. For Nutsteel NBR IEC Brazilian Certified versions, contact your local sales representative.
*④ For Nutsteel NBR IEC Brazilian Certified version with BSP threads, add an **N** to the beginning of the catalog number and add a **B** after the PX in the catalog number, i.e. **N**20S16PX**B**0505.*

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PXSS2K Series Compound Barrier Type Cable Connector

Flame Proof

Unarmored, Tray, Shipboard and SO Type Cable.

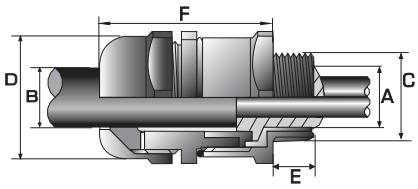
NEC/CEC:	*NEC/CEC:*	*IECEx:*	*NBR IEC:*
Class I, Division 1, Groups C, D	*Class I, Zone 1*	*Zone 1*	*Zone 1 and 2*
Class I, Division 2, Groups A ①, B ①, C, D	*NEMA 4X*	*AEx d IIC*	*Ex d IIC Gb*
Class II, Division 1, Groups E, F, G	*IP66, IP67, IP68*	*AEx e II*	*Ex e IIC Gb*
Class II, Division 2, Groups F, G		*Ex nR II, Ex tD*	*IP66*
		IP66, IP67, IP68	

NBR IEC Brazilian Certifications and Compliances

- Certification Type PX2K
- Zones 1 and 2, Gas
  — IEC Marking: Ex d IIC Gb, Ex e IIC Gb
- INMETRO Ordinance: 179
- INMETRO Certificate: TUV 12.2073-X
- Ingress Protection (solid and liquid): IP66
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)



Dimensions in Millimeters (Inches)



Cable Gland Size	Maximum Diameter Over Conductors — mm (in) A	Overall Cable Diameter — mm (in) B		Maximum Across — mm (in) D		Nominal Protrusion Length — mm (in) F	PVC Shroud Reference	Cable Connector Weight — kgs (oz)
		Min	Max	Flats	Corners			
20S16	11 (0.433)	3.1 (0.122)	8.7 (0.34)	30.5 (1.20)	33.6 (1.32)	58.5 (2.30)	PVC04	0.20 (7.05)
20S	11 (0.433)	6.1 (0.24)	11.7 (0.46)	30.5 (1.20)	33.6 (1.32)	58.5 (2.30)	PVC04	0.20 (7.05)
20	21 (0.827)	6.5 (0.256)	14.0 (0.55)	30.5 (1.20)	33.6 (1.32)	60.5 (2.38)	PVC05	0.25 (8.82)
20L	21 (0.827)	9.9 (0.390)	16.0 (0.630)	30.5 (1.20)	33.6 (1.32)	60.5 (2.38)	PVC05	0.25 (8.82)
25	38 (1.50)	11.1 (0.437)	20.0 (0.79)	37.5 (1.48)	41.3 (1.63)	67.5 (2.66)	PVC09	0.403 (14.23)
32	59 (2.32)	17.0 (0.669)	26.3 (1.04)	46.0 (1.81)	50.6 (1.99)	69.5 (2.74)	PVC10	0.555 (19.58)
32L	59 (2.32)	20.0 (0.790)	27.4 (1.079)	46.0 (1.81)	50.6 (1.99)	69.5 (2.74)	PVC10	0.555 (19.58)
40	89 (3.50)	22.0 (0.866)	32.1 (1.26)	55.0 (2.17)	60.5 (2.38)	78.0 (3.07)	PVC13	0.60 (21.16)
50S	115 (4.53)	29.5 (1.16)	38.2 (1.50)	60.0 (2.36)	66.0 (2.60)	75.5 (2.97)	PVC15	0.605 (21.34)
50	115 (4.53)	35.6 (1.40)	44.1 (1.74)	70.0 (2.76)	77.0 (3.03)	80.5 (3.17)	PVC18	0.62 (21.87)
63S	140 (5.51)	40.1 (1.58)	50.1 (1.97)	75.0 (2.95)	82.5 (3.25)	91.5 (3.60)	PVC21	0.705 (24.87)
63	140 (5.51)	47.2 (1.86)	56.0 (2.20)	80.0 (3.15)	88.0 (3.46)	92.0 (3.62)	PVC23	0.73 (25.75)
75S	140 (5.51)	52.8 (2.08)	62.0 (2.44)	89.0 (3.50)	97.9 (3.85)	99.0 (3.90)	PVC24	1.15 (40.57)
75	140 (5.51)	59.1 (2.33)	68.0 (2.68)	99.0 (3.90)	108.9 (4.29)	102.0 (4.02)	PVC26	1.15 (40.57)
90	140 (5.51)	66.6 (2.62)	79.4 (3.13)	114.0 (4.49)	125.4 (4.94)	120.0 (4.72)	PVC31	2.70 (95.24)

① *Increased thread engagement is required for gas groups A and B. Please specify gas group, thread form and size when ordering.*

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PXSS2K–REX Series Liquid Resin Barrier Type Cable Connector

Flame Proof

Unarmored, Tray, Shipboard and SO Type Cable.

NEC/CEC:
Class I, Division 1, Groups C, D
Class I, Division 2, Groups A ①, B ①, C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G

NEC/CEC:
Class I, Zone 1
NEMA 4X
IP66, IP67, IP68

IECEx:
Zone 1
AEx d IIC
AEx e II
Ex nR II, Ex tD
IP66, IP67, IP68

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66

Applications

- Flame proof Class I Division 2 cable connector suitable for unarmored, extra hard usage, tray (TC) and shipboard cables.

Features

- The gland utilizes a liquid pour resin seal that vastly reduces installation time and associated costs. This solution is particularly effective on multicore cables where traditional compound is difficult and time consuming to apply.
- Connector provides an environmental seal on the cable jacket and an explosionproof liquid resin barrier seal around the cable inner cores.
- Continuous operating temperature -60 °C to +100 °C (-76 °F to +212 °F).
- Sealing technique - displacement seal concept. Sealing area(s) - inner liquid resin barrier and outer sheath.

Standard Materials

- Connector: brass fully nickel plated
- Seal: SOLO LSF (low smoke fumes) thermoplastic elastomer
- High speed liquid resin sealing compound.

Options

- Aluminum: replace last digit **5** with **1**
- 316L stainless steel: replace last digit **5** with **4** (available by quote only)
- Shroud, locknut, earth tag, entry thread seal, serrated washers, adaptors and reducers: see *Cable Gland Accessories* pages

NEC/CEC Certifications and Compliances

- UL Standard: 2225
- CSA Standard: C22.2 No. 174
- CSA Certified: 101909

Cable Gland Size	Thread NPT / Metric	Minimum Thread Length — mm (in) E	Catalog Number Gland Kit ②③④	Kit Contains Gland(s) and Sealing Resin(s) Catalog Number Single Gland ②③④	Gland Qty	Catalog Number Single Sealing Resin	Resin Qty	Maximum Number of Cores — mm (in)	Maximum Diameter Over Conductors — mm (in) A
20S/16	1/2"	19.9 (0.783)	**2016PXREX0505KT**	**20S16PXREX0505**	10	**RAPIDEX30**	10	11 (0.433)	12.6 (0.496)
	3/4"	15 (0.591)	**2016PXREX0755KT**	**20S16PXREX0755**	10	**RAPIDEX30**	10		
20S	1/2"	19.9 (0.783)	**20SPXREX0505KT**	**20SPXREX0505**	10	**RAPIDEX30**	10	11 (0.433)	12.6 (0.496)
	3/4"	15 (0.591)	**20SPXREX0755KT**	**20SPXREX0755**	10	**RAPIDEX30**	10		
	M20	15 (0.591)	**20SPXREX5KT**	**20SPXREX5**	10	**RAPIDEX30**	10		
20	1/2"	19.9 (0.783)	**20PXREX0505KT**	**20PXREX0505**	10	**RAPIDEX30**	10	21 (0.827)	12.6 (0.496)
	3/4"	15 (0.591)	**20PXREX0755KT**	**20PXREX0755**	10	**RAPIDEX30**	10		
	M20	15 (0.591)	**20PXREX5KT**	**20PXREX5**	10	**RAPIDEX30**	10		
20L	1/2”	19.9 (0.783)	**20LPXREX0505KT**	**20LPXREX0505**	10	**RAPIDEX30**	10	21 (0.827)	12.6 (0.496)
	3/4”	15 (0.591)	**20LPXREX0755KT**	**20LPXREX0755**	10	**RAPIDEX30**	10		
	M20	15 (0.591)	**20LPXREX5KT**	**20LPXREX5**	10	**RAPIDEX30**	10		
25	3/4"	20.2 (0.795)	**25PXREX0755KT**	**25PXREX0755**	10	**RAPIDEX30**	10	38 (1.500)	17.5 (0.689)
	M25	15 (0.591)	**25PXREX5KT**	**25PXREX5**	10	**RAPIDEX30**	10		
32	1"	25.0 (0.984)	**32PXREX1005KT**	**32PXREX1005**	10	**RAPIDEX30**	10	159 (6.260)	23.6 (0.929)
	M32	15 (0.591)	**32PXREX5KT**	**32PXREX5**	10	**RAPIDEX30**	10		
32L	1”	25.0 (0.984)	**32LPXREX1005KT**	**32LPXREX1005**	1	**RAPIDEX80**	1	159 (6.260)	23.6 (0.929)
	M32	15 (0.591)	**32LPXREX5KT**	**32LPXREX5**	10	**RAPIDEX30**	10		
40	1-1/4"	25.6 (1.01)	**40PXREX1255KT**	**40PXREX1255**	1	**RAPIDEX80**	1	89 (3.500)	30.0 (1.180)
	M40	15 (0.591)	**40PXREX5KT**	**40PXREX5**	10	**RAPIDEX30**	10		
50S	1-1/2"	26.1 (1.03)	**50SPXREX1505KT**	**50SPXREX1505**	1	**2RAPIDEX80**	1	115 (4.530)	36.6 (1.440)
	M50	15 (0.591)	**50SPXREX5KT**	**50SPXREX5**	1	**RAPIDEX80**	1		
50	2"	26.9 (1.06)	**50PXREX2005KT**	**50PXREX2005**	1	**2RAPIDEX80**	1	115 (4.530)	41.0 (1.610)
	M50	15 (0.591)	**50PXREX5KT**	**50PXREX5**	1	**RAPIDEX80**	1		
63S	2"	26.9 (1.06)	**63SPXREX2005KT**	**63SPXREX2005**	1	**2RAPIDEX80**	1	140 (5.510)	47.9 (1.890)
	M63	15 (0.591)	**63SPXREX5KT**	**63SPXREX5**	1	**2RAPIDEX80**	1		
63	2-1/2"	39.0 (1.54)	**63PXREX2505KT**	**63PXREX2505**	1	**2RAPIDEX80**	1	140 (5.510)	53.7 (2.110)
	M63	15 (0.591)	**63PXREX5KT**	**63PXREX5**	1	**2RAPIDEX80**	1		
75S	2-1/2"	39.0 (1.54)	**75SPXREX2505KT**	**75SPXREX2505**	1	**3RAPIDEX80**	1	140 (5.510)	59.9 (2.360)
	M75	15 (0.591)	**75SPXREX5KT**	**75SPXREX5**	1	**2RAPIDEX80**	1		
75	3"	41.5 (1.63)	**75PXREX3005KT**	**75PXREX3005**	1	**3RAPIDEX80**	1	140 (5.510)	64.3 (2.530)
	M75	15 (0.591)	**75PXREX5KT**	**75PXREX5**	1	**3RAPIDEX80**	1		
90	3-1/2"	42.8 (1.69)	**90PXREX3505KT**	**90PXREX3505**	1	**3RAPIDEX80**	1	140 (5.510)	75.3 (2.960)
	M90	15 (0.591)	**90PXREX5KT**	**90PXREX5**	1	**3RAPIDEX80**	1		

① Increased thread engagement is required for gas groups A and B. Please specify gas group, thread form and size when ordering.
*② For Nutsteel NBR IEC Brazilian Certified version add an **N** to the beginning of the catalog number, i.e. **N**20S16PX0505.*
③ Entry thread seal not supplied, see Cable Gland Accessories and Tools. For Nutsteel NBR IEC Brazilian Certified versions, contact your local sales representative.
*④ For Nutsteel NBR IEC Brazilian Certified version with BSP threads, add an **N** to the beginning of the catalog number and add a **B** after the PX in the catalog number, i.e. **N**20S16PX**B**0505.*

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PXSS2K–REX Series Liquid Resin Barrier Type Cable Connector

Flame Proof

Unarmored, Tray, Shipboard and SO Type Cable.

NEC/CEC:
Class I, Division 1, Groups C, D
Class I, Division 2, Groups A ①, B ①, C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G

NEC/CEC:
Class I, Zone 1
NEMA 4X
IP66, IP67, IP68

IECEx:
Zone 1
AEx d IIC
AEx e II
Ex nR II, Ex tD
IP66, IP67, IP68

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66

IECEx Certifications and Compliances

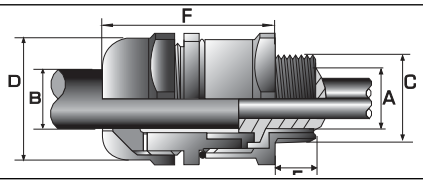
- Ingress Protection: IP66, IP67 and IP68, NEMA 4X
- Deluge Protection: To DTS01: 91
- Code of protection category: Ex e II, Ex nR II, Ex tD A21 IP66, Equipment Zone I, Zone 2, Zone 21 and Zone 22 – Gas Groups IIA, IIB, IIC

NBR IEC Brazilian Certifications and Compliances

- Certification Type PX2K
- Zones 1 and 2, Gas
  — IEC Marking: Ex d IIC Gb, Ex e IIC Gb
- INMETRO Ordinance: 179
- INMETRO Certificate: TUV 12.2073-X
- Ingress Protection (solid and liquid): IP66
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)



Dimensions in Millimeters (Inches)



Cable Gland Size	Thread NPT / Metric	Maximum Cable Bedd. Dia.	Overall Cable Diameter — mm (in) B Minimum	Overall Cable Diameter — mm (in) B Maximum	Maximum Across — mm (in) D Flats	Maximum Across — mm (in) D Corners	Protrusion Length — mm (in) F	PVC Shroud Reference	Cable Connector Weight g (oz)
20S/16	1/2" / 3/4"	11.8 (0.465)	3.1 (0.122)	8.7 (0.343)	30.5 (1.20)	33.6 (1.32)	58.5 (2.30)	**PVC04**	161.0 (5.68)
20S	1/2" / 3/4" / M20	11.8 (0.465)	6.1 (0.240)	11.7 (0.461)	30.5 (1.20)	33.6 (1.32)	58.5 (2.30)	**PVC04**	161.0 (5.68)
20	1/2" / 3/4" / M20	14.1 (0.555)	6.5 (0.256)	14.0 (0.551)	30.5 (1.20)	33.6 (1.32)	60.5 (2.38)	**PVC05**	201.0 (7.09)
20L	1/2" / 3/4" / M20	14.1 (0.555)	9.9 (0.390)	16.0 (0.630)	30.5 (1.20)	33.6 (1.32)	60.5 (2.38)	**PVC05**	201.0 (7.09)
25	3/4" / M25	20.1 (0.791)	11.1 (0.437)	20.0 (0.787)	37.5 (1.48)	41.3 (1.63)	67.5 (2.66)	**PVC09**	324.3 (11.44)
32	1" / M32	26.4 (1.040)	17.0 (0.669)	26.3 (1.040)	46.0 (1.81)	50.6 (1.99)	69.5 (2.74)	**PVC10**	446.5 (15.75)
32L	1" / M32	26.4 (1.040)	20.0 (0.790)	27.4 (1.079)	46.0 (1.81)	50.6 (1.99)	69.5 (2.74)	**PVC10**	446.5 (15.75)
40	1-1/4" / M40	32.3 (1.270)	22.0 (0.866)	32.1 (1.260)	55.0 (2.17)	60.5 (2.38)	78.0 (3.07)	**PVC13**	482.8 (17.03)
50S	1-1/2" / M50	38.3 (1.510)	29.5 (1.160)	38.2 (1.500)	60.0 (2.36)	66.0 (2.60)	75.5 (2.97)	**PVC15**	486.8 (17.17)
50	2" / M50	44.2 (1.740)	35.6 (1.400)	44.1 (1.740)	70.0 (2.76)	77.0 (3.03)	80.5 (3.17)	**PVC18**	498.7 (17.59)
63S	2" / M63	50.1 (1.970)	40.1 (1.580)	50.1 (1.970)	75.0 (2.95)	82.5 (3.25)	91.5 (3.60)	**PVC21**	567.0 (20.00)
63	2-1/2" / M63	56.1 (2.210)	47.2 (1.860)	56.0 (2.200)	80.0 (3.15)	88.0 (3.46)	92.0 (3.62)	**PVC23**	587.1 (20.71)
75S	2-1/2" / M75	62.1 (2.440)	52.8 (2.080)	62.0 (2.440)	89.0 (3.50)	97.9 (3.85)	99.0 (3.90)	**PVC24**	925.0 (32.63)
75	3" / M75	64.3 (2.530)	59.1 (2.330)	68.0 (2.680)	99.0 (3.90)	108.9 (4.29)	102.0 (4.02)	**PVC26**	1045.8 (36.89)
90	3-1/2" / M90	78.4 (3.090)	66.6 (2.620)	79.4 (3.130)	114.0 (4.49)	125.4 (4.94)	120.0 (4.72)	**PVC31**	2171.9 (76.61)

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PX2K Series Nickel Plated Brass Cable Glands for All Types of Armored Cables

(Braids, Tape and Wire with Lead Sheath Version) with Compound Barrier Seal – Increased Safety and Flameproof.

NEC/CEC (Braid-Armor Cable, Armored Jacketed Marine Shipboard Cable):
Class I, Division 1, Groups A, B, C, D
Class II, Division 1, Groups E, F, G
Class III
NEMA 4X

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
ATEX / IECEx
IP66/68 (10 m)

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66

Applications:

- Cable gland for all types of armored cables (braid, tape, wire and lead sheath version) certified for enclosures with the following protection modes:
  - — Ex d flameproof IIB or IIC (as per §10.4.2 of IEC 60079-14) (Refer to the ATX Guide for Use of Electrical Products in Hazardous Locations)
  - — Ex e increased safety.
  - — Ex nR restricted breathing.
  - — D dust environment.
- Hazardous areas (gas and dust).
- Onshore and offshore.

Features

- Cable gland with compound barrier seal for use in hazardous areas with all types of armored cables (braid, tape and wire).
- The cable gland provides mechanical cable retention and earth continuity via cable armor termination.
- A combined detachable armor cone and compound tube, together with AnyWay universal clamping ring arrangement allows the cable to be easily disconnected from the equipment.
- The cable gland is IP66/68 and complies with deluge protection tests.
- The cable gland is supplied with epoxy resin and two detachable armor cones.

Standard Materials

- Body: nickel plated brass
- Epoxy resin barrier compound
- Seal: LSF (Low Smoke Fume) thermoplastic elastomer displacement outer seal

Options

- 316L stainless steel version: replace last digit **5** with **4**
- Lead sheath version: Replace **PX2K** with **PX2KPB**
- Aluminum: replace last digit **5** with **1**
- Shroud, locknut, earth tag, entry thread seal, serrated washers, adaptors and reducers: see *Cable Gland Accessories* pages.

NEC/CEC Certifications and Compliances

- UL Standard: 2225
- UL Listed: E161256
- CSA Standard: C22.2 No. 174
- CSA Certified: 101909

ATEX/IECEx Certifications and Compliances

- Certification Type PX2K
- Zones 1 and 2, Gas
  - — ATEX/IEC Protection: Ex d IIC, Ex e II, Ex nR II
- Zones 21 and 22, Dust
  - — ATEX/IEC Protection: Ex tD A21

Cable Gland Size	Metric Thread	Thread Pitch (mm)	Catalog Numbers Standard Metric ①②	NPT Thread	Standard NPT ①②③	NPT Thread	Optional NPT Thread ①②③
20S16	M20	1.5	**2016PX2K5**	1/2"	**2016PX2K0505**	3/4"	**2016PX2K0755**
20S	M20	1.5	**20SPX2K5**	1/2"	**20SPX2K0505**	3/4"	**20SPX2K0755**
20	M20	1.5	**20PX2K5**	1/2"	**20PX2K0505**	3/4"	**20PX2K0755**
25S	M25	1.5	**25SPX2K5**	3/4"	**25SPX2K0755**	1"	**25SPX2K1005**
25	M25	1.5	**25PX2K5**	3/4"	**25PX2K0755**	1"	**25PX2K1005**
32	M32	1.5	**32PX2K5**	1"	**32PX2K1005**	1-1/4"	**32PX2K1255**
40	M40	1.5	**40PX2K5**	1-1/4"	**40PX2K1255**	1-1/2"	**40PX2K1505**
50S	M50	1.5	**50SPX2K5**	1-1/2"	**50SPX2K1505**	2"	**50SPX2K2005**
50	M50	1.5	**50PX2K5**	2"	**50PX2K2005**	2-1/2"	**50PX2K2505**
63S	M63	1.5	**63SPX2K5**	2"	**63SPX2K2005**	2-1/2"	**63SPX2K2505**
63	M63	1.5	**63PX2K5**	2-1/2"	**63PX2K2505**	3"	**63PX2K 3005**
75S	M75	1.5	**75SPX2K5**	2-1/2"	**75SPX2K2505**	3"	**75SPX2K3005**
75	M75	1.5	**75PX2K5**	3"	**75PX2K3005**	3-1/2"	**75PX2K3505**
90	M90	2.5	**90PX2K5**	3"	**90PX2K3005**	3-1/2"	**90PX2K3505**

*① For Nutsteel NBR IEC Brazilian Certified version add an **N** to the beginning of the catalog number, i.e. **N**2016PX2K0505.*
② Entry thread seal not supplied, see Cable Gland Accessories and Tools. For Nutsteel NBR IEC Brazilian Certified versions, contact your local sales representative.
*③ For Nutsteel NBR IEC Brazilian Certified version with BSP threads, add an **N** to the beginning of the catalog number and add a **B** after the PX2K in the catalog number, i.e. **N**20S16PX2K**B**0505.*

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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PX2K Series: Nickel Plated Brass Cable Glands for All Types of Armored Cables

(Braids, Tape and Wire with Lead Sheath Version) with Compound Barrier Seal – Increased Safety and Flameproof.

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Class II, Division 1, Groups E, F, G
Class III
NEMA 4X

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
ATEX / IECEx
IP66/68 (10 m)

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66

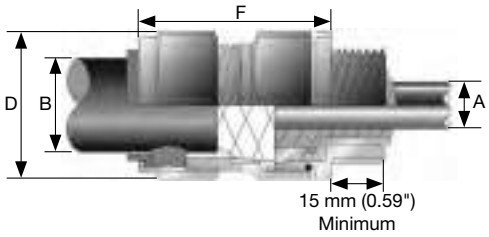
- Conforming to ATEX 94/9/CE: Ex II 2 GD
- Ambient Temperature: -60 °C to +100 °C (-76 °F to +212 °F)
- CE Declaration of Conformity: DC07001
- ATEX Certificate: SIRA 06 ATEX 1097X
- IECEx Certificate: IECEx SIR 06.0044X
- Other Certifications: GOST, Lloyds, DNV, ABS
- Ingress Protection (solid and liquid): IP66 / IP68 (10m)
- IEC Standards: 60079-0; 60079-1; 60079-7; 60079-15; 61241-0; 61241-1
- Product Standards: BS 6121, NF E 03 601 (conical thread); ISO 065/I/III (metric thread)



NBR IEC Brazilian Certifications and Compliances

- Certification Type PX2K
- Zones 1 and 2, Gas
  — IEC Marking: Ex d IIC Gb, Ex e IIC Gb
- INMETRO Ordinance: 179
- INMETRO Certificate: TUV 12.2073-X
- Ingress Protection (solid and liquid): IP66
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)

Dimensions in Millimeters (Inches)



Cable Gland Size	Resin —mm (in) A		Outer Cable Diameter — mm (in) B		Dimensions — mm (in) D			
	Ø mm (in)	Max. Number of Cores	Min	Max	Corner	Flat	Length — mm (in) F	Weight kg (lb)
20S16	12.6 (0.50)	15	6.1 (0.24)	11.5 (0.45)	26.6 (1.05)	24.0 (0.94)	58.5 (2.30)	0.20 (0.44)
20S	12.6 (0.50)	15	9.5 (0.37)	15.9 (0.63)	26.6 (1.05)	24.0 (0.94)	58.5 (2.30)	0.20 (0.44)
20	12.6 (0.50)	15	12.5 (0.49)	20.9 (0.82)	33.3 (1.31)	30.5 (1.20)	60.5 (2.38)	0.23 (0.51)
25S	17.5 (0.69)	29	14.0 (0.55)	22.0 (0.87)	40.5 (1.59)	37.5 (1.48)	67.5 (2.66)	0.33 (0.73)
25	17.5 (0.69)	29	18.2 (0.72)	26.2 (1.03)	40.5 (1.59)	37.5 (1.48)	67.5 (2.66)	0.33 (0.73)
32	23.6 (0.93)	51	23.7 (0.93)	33.9 (1.33)	51.0 (2.01)	46.0 (1.81)	69.5 (2.74)	0.51 (1.12)
40	30.0 (1.18)	80	27.9 (1.10)	40.4 (1.59)	61.0 (2.40)	55.0 (2.17)	78.0 (3.07)	0.72 (1.59)
50S	36.6 (1.44)	122	35.2 (1.39)	46.7 (1.84)	66.5 (2.62)	60.0 (2.36)	75.5 (2.97)	0.82 (1.81)
50	41.0 (1.61)	149	40.4 (1.59)	53.1 (2.09)	78.6 (3.09)	70.0 (2.76)	80.5 (3.17)	0.86 (1.90)
63S	47.9 (1.89)	205	45.6 (1.80)	59.4 (2.34)	83.2 (3.28)	75.0 (2.95)	91.5 (3.60)	1.45 (3.20)
63	53.7 (2.11)	259	54.6 (2.15)	65.9 (2.59)	89.0 (3.50)	80.0 (3.15)	92.0 (3.62)	1.60 (3.53)
75S	59.8 (2.35)	320	59.0 (2.32)	72.1 (2.84)	101.6 (4.00)	89.0 (3.50)	99.0 (3.90)	2.30 (5.07)
75	64.3 (2.53)	364	66.7 (2.63)	78.5 (3.09)	111.1 (4.37)	99.0 (3.90)	102.0 (4.02)	3.05 (6.72)
90	75.3 (2.96)	500	76.2 (3.00)	90.4 (3.56)	128.6 (5.06)	114.0 (4.89)	120.0 (4.72)	5.00 (11.02)

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E1FX Series Nickel Plated Brass Cable Gland

For Armored Cables

Increased Safety and Flameproof.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66

NBR IEC:
Zone 1 and 2
Ex d IIC Gb / Ex e IIC Gb
IP66W

Applications

- Cable gland for armored cables (braid, tape, tape with lead sheath) certified for enclosures with the following protection modes:
  - — Ex d flameproof IIB or IIC (as per §10.4.2 of IEC 60079-14) (Refer to the ATX Guide for Use of Electrical Products in Hazardous Locations)
  - — Ex e increased safety
  - — Ex nR restricted breathing
  - — D dust environment
- Hazardous areas (gas and dust)
- Onshore and offshore

Features

- Cable gland with elastomer seal for use in hazardous areas with braided and tape armor cable.
- The cable gland allows mechanical cable retention and earth continuity via cable armor termination.
- A detachable armor cone and AnyWay clamping ring arrangement facilitates remote make off and enables cable to be disconnected from the equipment.
- Inspection of the armor can be carried out while still maintaining the explosionproof protection mode of the enclosure.

Standard Materials

- Body: nickel plated brass
- Seal: LSF (Low Smoke Fume) thermoplastic elastomer
  - — Inner displacement seal and LRS (Load Retention seal) outer seal

Options

- Lead sheath version – Replace digit **1** with **2;** Example: 32E1FX5 - 32E2FX5
- Aluminum: replace last digit **5** with **1**
- Shroud, locknut, earth tag, entry thread seal, serrated washers, adaptors and reducers: see *Cable Gland Accessories* pages.

ATEX/IECEx Certifications and Compliances

- Certification Type E1FX/Z - E2FX/Z
- Zones 1 and 2, Gas
  - — ATEX/IEC Protection: Ex d IIC, Ex e II, Ex nR II
- Zones 21 and 22, Dust
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
  - — ATEX/IEC Protection: Ex tD A21
- Conforming to ATEX 94/9/CE: Ⓔx II 2 GD
- Ambient Temperature: -60 °C to +130 °C (-76 °F to +266 °F)
- CE Declaration of Conformity: DC07001
- ATEX Certificate: SIRA 06 ATEX 1097X
- IECEx Certificate: IECEx SIR 06.0043X
- Other Certifications: GOST
- Ingress Protection (solid and liquid): IP66
- IEC Standards: 60079-0; 60079-1; 60079-7; 60079-15; 61241-0; 61241-1
- Product Standards: BS 6121, NF E 03 601 (conical thread); ISO 065/I/III (metric thread)

Cable Gland Size	Metric Thread	Thread Pitch (mm)	Catalog Numbers Standard Metric ①②	NPT Thread	Standard NPT ①②③	NPT Thread	Optional NPT Threa ①②③
20S16	M20	1.5	**2016E1FX5**	1/2"	**2016E1FX0505**	3/4"	**2016E1FX0755**
20S	M20	1.5	**20SE1FX5**	1/2"	**20SE1FX0505**	3/4"	**20SE1FX0755**
20	M20	1.5	**20E1FX5**	1/2"	**20E1FX0505**	3/4"	**20E1FX0755**
25S	M25	1.5	**25SE1FX5**	3/4"	**25SE1FX0755**	1"	**25SE1FX1005**
25	M25	1.5	**25E1FX5**	3/4"	**25E1FX0755**	1"	**25E1FX1005**
32	M32	1.5	**32E1FX5**	1"	**32E1FX1005**	1-1/4"	**32E1FX1255**
40	M40	1.5	**40E1FX5**	1-1/4"	**40E1FX1255**	1-1/2"	**40E1FX1505**
50S	M50	1.5	**50SE1FX5**	1-1/2"	**50SE1FX1505**	2"	**50SE1FX2005**
50	M50	1.5	**50E1FX5**	2"	**50E1FX2005**	2-1/2"	**50E1FX2505**
63S	M63	1.5	**63SE1FX5**	2"	**63SE1FX2005**	2-1/2"	**63SE1FX2505**
63	M63	1.5	**63E1FX5**	2-1/2"	**63E1FX2505**	3"	**63E1FX3005**
75S	M75	1.5	**75SE1FX5**	2-1/2"	**75SE1FX2505**	3"	**75SE1FX3005**
75	M75	1.5	**75E1FX5**	3"	**75E1FX3005**	3-1/2"	**75E1FX3505**
90	M90	2.5	**90E1FX5**	3"	**90E1FX3005**	3-1/2"	**90E1FX3505**
100	M100	2.5	**100E1FX5**	4"	**100E1FX4005**	-	-

*① For Nutsteel NBR IEC Brazilian Certified version add an **N** to the beginning of the catalog number, i.e. **N**2016E1FX0505.*
② Entry thread seal not supplied, see Cable Gland Accessories and Tools. For Nutsteel NBR IEC Brazilian Certified versions, contact your local sales representative.
*③ For Nutsteel NBR IEC Brazilian Certified version with BSP threads, add an **N** to the beginning of the catalog number and add a **B** after the E1FX in the catalog number, i.e. **N**2016E1FX**B**0505.*

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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E1FX Series Nickel Plated Brass Cable Gland

For Armored Cables

Increased Safety and Flameproof.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
IP66

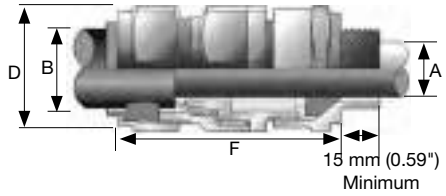
NBR IEC:
Zone 1 and 2
Ex d IIC Gb / Ex e IIC Gb
IP66W

NBR IEC Brazilian Certifications and Compliances

- Certification Type E1FW/Z - E2FW/Z
- Zones 1 and 2, Gas
  — IEC Marking: Ex d IIC Gb, Ex e IIC Gb
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.0618-X
- Ingress Protection (solid and liquid): IP66W
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)



Dimensions in Millimeters (Inches)



E2FX Series Optional Lead Sheath



Cable Gland Size	Inner Cable Capacity — mm (in) A		Outer Cable Capacity — mm (in) B		Dimensions — mm (in) D		Length — mm (in) F	Weight kg (lb)
	Min	Max	Min	Max	Corner	Flat		
20S16	3.1 (0.12)	8.7 (0.34)	6.1 (0.24)	11.5 (0.45)	26.6 (1.05)	24.0 (0.94)	58.5 (2.30)	0.16 (0.35)
20S	6.1 (0.24)	11.7 (0.46)	9.5 (0.37)	15.9 (0.63)	26.6 (1.05)	24.0 (0.94)	58.5 (2.30)	0.16 (0.35)
20	6.5 (0.26)	14.0 (0.55)	12.5 (0.49)	20.9 (0.82)	33.3 (1.31)	30.5 (1.20)	60.5 (2.38)	0.21 (0.46)
25S	11.1 (0.44)	20.0 (0.79)	14.0 (0.55)	22.0 (0.87)	40.5 (1.59)	37.5 (1.48)	67.5 (2.66)	0.32 (0.71)
25	11.1 (0.44)	20.0 (0.79)	18.2 (0.72)	26.2 (1.03)	40.5 (1.59)	37.5 (1.48)	67.5 (2.66)	0.32 (0.71)
32	17.0 (0.67)	26.3 (1.04)	23.7 (0.93)	33.9 (1.33)	51.0 (2.01)	46.0 (1.81)	69.5 (2.74)	0.45 (0.99)
40	22.0 (0.87)	32.2 (1.27)	27.9 (1.10)	40.4 (1.59)	61.0 (2.40)	55.0 (2.17)	78.0 (3.07)	0.68 (1.50)
50S	29.5 (1.16)	38.2 (1.50)	35.2 (1.39)	46.7 (1.84)	66.5 (2.62)	60.0 (2.36)	75.5 (2.97)	0.73 (1.61)
50	35.6 (1.40)	44.1 (1.74)	40.4 (1.59)	53.1 (2.09)	78.6 (3.09)	70.0 (2.76)	80.5 (3.17)	0.75 (1.65)
63S	40.1 (1.58)	50.0 (1.97)	45.6 (1.80)	59.4 (2.34)	83.2 (3.28)	75.0 (2.95)	91.5 (3.60)	1.34 (2.95)
63	47.2 (1.86)	56.0 (2.20)	59.6 (2.15)	65.9 (2.59)	89.0 (3.50)	80.0 (3.15)	92.0 (3.62)	1.44 (3.17)
75S	52.8 (2.08)	62.0 (2.44)	59.0 (2.32)	72.1 (2.84)	101.6 (4.00)	89.0 (3.50)	99.0 (3.90)	2.07 (4.56)
75	59.1 (2.33)	68.0 (2.68)	66.7 (2.63)	78.5 (3.09)	111.1 (4.37)	99.0 (3.90)	102.0 (4.02)	2.62 (5.78)
90	66.6 (2.62)	80.0 (3.15)	76.2 (3.00)	90.4 (3.56)	128.6 (5.06)	114.0 (4.89)	120.0 (4.72)	4.17 (9.19)
100	76.0 (2.99)	91.0 (3.58)	86.1 (3.39)	101.5 (4.00)	138.0 (5.43)	123.0 (4.84)	148.0 (5.83)	4.52 (9.96)

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E1FW Nickel Plated Brass Cable Glands

With Elastomer Seal for Armored Cables

Increased Safety and Flameproof.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
IP66

NBR IEC:
Zone 1 and 2
Ex d IIC Gb / Ex e IIC Gb
IP66W

Applications

- Cable gland for Single Wire Armored cables (SWA with wire and lead sheath) certified for enclosures with the following protection modes:
  - Ex d flameproof IIB or IIC (as per §10.4.2 of IEC 60079-14) (Refer to the ATX Guide for Use of Electrical Products in Hazardous Locations)
  - Ex e increased safety
  - Ex nR restricted breathing
  - D dust environment
- Hazardous areas (gas and dust).
- Onshore and offshore.

Features

- Cable gland with elastomer seal for use in hazardous areas with Single Wire Armor (SWA) cable.
- The cable gland allows mechanical cable retention and earth continuity via cable armor termination.
- A detachable armor cone and AnyWay clamping ring arrangement facilitates remote make off and enables cable to be disconnected from the equipment.
- Inspection of the armor can be carried out while still maintaining the protection mode of the enclosure.

Standard Materials

- Body: nickel plated brass
- Seal: LSF (Low Smoke Fume) thermoplastic elastomer
  - Inner displacement seal and LRS (Load Retention seal) outer seal

Options

- Lead sheath version ④ – Replace digit E**1** with E**2;** Example: 32E1FW5 - 32E2FW5
- Aluminum: replace last digit **5** with **1**
- Shroud, locknut, earth tag, entry thread seal, serrated washers, adaptors and reducers: see *Cable Gland Accessories* pages.

ATEX/IECEx Certifications and Compliances

- Certification Type E1FW/Z - E2FW/Z
- Zones 1 and 2, Gas
  - ATEX/IEC Protection: Ex d IIC, Ex e II, Ex nR II
- Zones 21 and 22, Dust
  - Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 D
  - ATEX/IEC Protection: Ex tD A21
- Conforming to ATEX 94/9/CE: Ex II 2 GD
- Ambient Temperature: -60 °C to +130 °C (-76 °F to +266 °F)
- CE Declaration of Conformity: DC07001

Cable Gland Size	Metric Thread	Thread Pitch (mm)	Catalog Numbers: Standard Metric ①②	NPT Thread	Standard NPT ①②③	NPT Thread	Optional NPT Thread ①②③
20S16	M20	1.5	**2016E1FW5**	1/2"	**2016E1FW0505**	3/4"	**2016E1FW0755**
20S	M20	1.5	**20SE1FW5**	1/2"	**20SE1FW0505**	3/4"	**20SE1FW0755**
20	M20	1.5	**20E1FW5**	1/2"	**20E1FW0505**	3/4"	**20E1FW0755**
25S	M25	1.5	**25SE1FW5**	3/4"	**25SE1FW0755**	1"	**25SE1FW1005**
25	M25	1.5	**25E1FW5**	3/4"	**25E1FW0755**	1"	**25E1FW1005**
32	M32	1.5	**32E1FW5**	1"	**32E1FW1005**	1-1/4"	**32E1FW1255**
40	M40	1.5	**40E1FW5**	1-1/4"	**40E1FW1255**	1-1/2"	**40E1FW1505**
50S	M50	1.5	**50SE1FW5**	1-1/2"	**50SE1FW1505**	2"	**50SE1FW2005**
50	M50	1.5	**50E1FW5**	2"	**50E1FW2005**	2-1/2"	**50E1FW2505**
63S	M63	1.5	**63SE1FW5**	2"	**63SE1FW2005**	2-1/2"	**63SE1FW2505**
63	M63	1.5	**63E1FW5**	2-1/2"	**63E1FW2505**	3"	**63E1FW3005**
75S	M75	1.5	**75SE1FW5**	2-1/2"	**75SE1FW2505**	3"	**75SE1FW3005**
75	M75	1.5	**75E1FW5**	3"	**75E1FW3005**	3-1/2"	**75E1FW3505**
90	M90	2.5	**90E1FW5**	3"	**90E1FW3005**	3-1/2"	**90E1FW3505**
100	M100	2.5	**100E1FW5**	4"	**100E1FW4005**	—	—

*① For Nutsteel NBR IEC Brazilian Certified version add an **N** to the beginning of the catalog number, i.e. **N**2016E1FW0505.*
② Entry thread seal not supplied, see Cable Gland Accessories and Tools. For Nutsteel NBR IEC Brazilian Certified versions, contact your local sales representative.
*③ For Nutsteel NBR IEC Brazilian Certified version with BSP threads, add an **N** to the beginning of the catalog number and add a **B** after the E1FW in the catalog number, i.e. **N**2016E1FW**B**0505.*
④ Lead sheath version is not available for NBR IEC Brazilian governed locations.

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E1FW Nickel Plated Brass Cable Glands

With Elastomer Seal for Armored Cables

Increased Safety and Flameproof.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66

NBR IEC:
Zone 1 and 2
Ex d IIC Gb / Ex e IIC Gb
IP66W

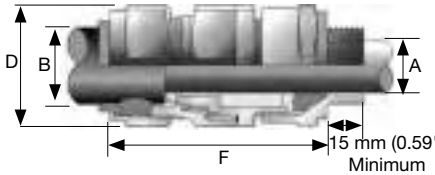
- ATEX Certificate: SIRA 06 ATEX 1097X
- IECEx Certificate: IECEx SIR 06.0043X
- Other Certifications: GOST
- Ingress Protection (solid and liquid): IP66
- IEC Standards: 60079-0; 60079-1; 60079-7; 60079-15; 61241-0; 61241-1
- Product Standards: BS 6121, NF E 03 601 (conical thread); ISO 065/I/III (metric thread)

NBR Brazilian Certifications and Compliances

- Certification Type E1FW/Z - E2FW/Z
- Zones 1 and 2, Gas
  — IEC Marking: Ex d IIC Gb, Ex e IIC Gb
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.0618-X
- Ingress Protection (solid and liquid): IP66W
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)



Dimensions in Millimeters (Inches)



E2FW Series Optional Lead Sheath



Cable Gland Size	Inner Cable Capacity — mm (in) A Min	Inner Cable Capacity — mm (in) A Max	Outer Cable Capacity — mm (in) B Min	Outer Cable Capacity — mm (in) B Max	Dimensions — mm (in) D Corner	Dimensions — mm (in) D Flat	Length — mm (in) F	Weight kg (lb)
20S16	3.1 (0.12)	8.7 (0.34)	6.1 (0.24)	11.5 (0.45)	26.6 (1.05)	24.0 (0.94)	58.5 (2.30)	0.16 (0.35)
20S	6.1 (0.24)	11.7 (0.46)	9.5 (0.37)	15.9 (0.63)	26.6 (1.05)	24.0 (0.94)	58.5 (2.30)	0.16 (0.35)
20	6.5 (0.26)	14.0 (0.55)	12.5 (0.49)	20.9 (0.82)	33.3 (1.31)	30.5 (1.20)	60.5 (2.38)	0.20 (0.44)
25S	11.1 (0.44)	20.0 (0.79)	14.0 (0.55)	22.0 (0.87)	40.5 (1.59)	37.5 (1.48)	67.5 (2.66)	0.32 (0.71)
25	11.1 (0.44)	20.0 (0.79)	18.2 (0.72)	26.2 (1.03)	40.5 (1.59)	37.5 (1.48)	67.5 (2.66)	0.32 (0.71)
32	17.0 (0.67)	26.3 (1.04)	23.7 (0.93)	33.9 (1.33)	51.0 (2.01)	46.0 (1.81)	69.5 (2.74)	0.45 (0.99)
40	22.0 (0.87)	32.2 (1.27)	27.9 (1.10)	40.4 (1.59)	61.0 (2.40)	55.0 (2.17)	78.0 (3.07)	0.67 (1.48)
50S	29.5 (1.16)	38.2 (1.50)	35.2 (1.39)	46.7 (1.84)	66.5 (2.62)	60.0 (2.36)	75.5 (2.97)	0.73 (1.61)
50	35.6 (1.40)	44.1 (1.74)	40.4 (1.59)	53.1 (2.09)	78.6 (3.09)	70.0 (2.76)	80.5 (3.17)	0.75 (1.65)
63S	40.1 (1.58)	50.0 (1.97)	45.6 (1.80)	59.4 (2.34)	83.2 (3.28)	75.0 (2.95)	91.5 (3.60)	1.34 (2.95)
63	47.2 (1.86)	56.0 (2.20)	59.6 (2.15)	65.9 (2.59)	89.0 (3.50)	80.0 (3.15)	92.0 (3.62)	1.44 (3.17)
75S	52.8 (2.08)	62.0 (2.44)	59.0 (2.32)	72.1 (2.84)	101.6 (4.00)	89.0 (3.50)	99.0 (3.90)	2.07 (4.56)
75	59.1 (2.33)	68.0 (2.68)	66.7 (2.63)	78.5 (3.09)	111.1 (4.37)	99.0 (3.90)	102.0 (4.02)	2.62 (5.78)
90	66.6 (2.62)	80.0 (3.15)	76.2 (3.00)	90.4 (3.56)	128.6 (5.06)	114.0 (4.89)	120.0 (4.72)	4.17 (9.19)
100	76.0 (2.99)	91.0 (3.58)	86.1 (3.39)	101.5 (4.00)	138.0 (5.43)	123.0 (4.84)	148.0 (5.83)	4.52 (9.96)

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Nutsteel® NEBJS Series Stopper Plugs

Cable Gland Accessories

Increased Safety and Flameproof.

NBR IEC:
Zones 1 and 2
Ex d IIC Gb
Ex e IIC Gb
IP66

Applications

- Stopper plug is designed for use from the outside of the enclosure to permanently or temporarily close any unused entries.
- Idea for use on explosionproof, increased safety and industrial electrical equipment in hazardous areas.

Features

- Internal Allen Key design is considered tamper proof. Once the equipment has been de-energized and the terminal chamber cover removed it can be removed from the inside.
- NPT and metric threads standard. BSP threads available.
- It is recommended that a suitable entry thread sealing washer is also selected and installed, where applicable, to ensure that an effective seal is made at the entry, thereby maintaining the integrity of the enclosure or equipment I.P. rating.

Standard Materials

- Aluminum

Options

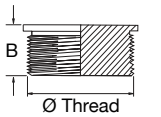
- For a brass joint, replace the letter **A**, with the letters **LC**, in the 9th position; example: NEBJS01N**LC**.
- For 304 stainless steel, replace the letter **A**, with the letters **I4**, in the 9th position; example: NEBJS01N**I4**.
- For 316 stainless steel, replace the letter **A**, with the letters **I6**, in the 9th position; example: NEBJS01N**I6**.

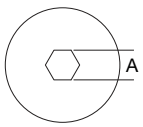


- For 316L stainless steel, replace the letter **A**, with the letters **I6L**, in the 9th position; example: NEBJS01N**I6L**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NEBJS01**B**A.

NBR IEC Brazilian Certifications and Compliances

- Certificate of Compliance: TÜV 11.0384
- Ex Standards: ABNT NBR IEC 60079-0; 60079-;1 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)





Catalog Number	Ø Thread	Dimensions mm (in) A	Dimensions mm (in) B	Weight kg (lb)	Volume dm³ (in³)
NEBJS01NA	1/2"	10.00 (0.39)	34.50 (1.36)	0.02 (0.04)	0.005 (0.34)
NEBJS02NA	3/4"	10.00 (0.39)	43.00 (1.69)	0.03 (0.07)	0.010 (0.62)
NEBJS03NA	1"	10.00 (0.39)	43.00 (1.69)	0.05 (0.11)	0.019 (1.14)
NEBJS04NA	1-1/4"	10.00 (0.39)	52.00 (2.05)	0.10 (0.22)	0.035 (2.15)
NEBJS05NA	1-1/2"	10.00 (0.39)	52.00 (2.05)	0.13 (0.29)	0.046 (2.81)
NEBJS06NA	2"	14.00 (0.55)	52.00 (2.05)	0.20 (0.44)	0.072 (4.38)
NEBJS07NA	2-1/2"	14.00 (0.55)	63.00 (2.48)	0.35 (0.77)	0.130 (7.95)
NEBJS08NA	3"	14.00 (0.55)	63.00 (2.48)	0.52 (1.15)	0.193 (11.78)
NEBJS09NA	3-1/2"	19.00 (0.75)	63.00 (2.48)	0.68 (1.50)	0.252 (15.38)
NEBJS10NA	4"	19.00 (0.75)	63.00 (2.48)	0.87 (1.92)	0.319 (19.46)
NEBJSM16A	M16x1.5	73.00 (2.87)	80.00 (3.15)	0.01 (0.02)	0.003 (0.19)
NEBJSM20A	M20x1.5	73.00 (2.87)	80.00 (3.15)	0.01 (0.02)	0.005 (0.30)
NEBJSM25A	M25x1.5	73.00 (2.87)	80.00 (3.15)	0.02 (0.04)	0.009 (0.55)
NEBJSM32A	M32x1.5	73.00 (2.87)	80.00 (3.15)	0.05 (0.11)	0.017 (1.04)
NEBJSM40A	M40x1.5	82.60 (3.25)	92.00 (3.62)	0.09 (0.20)	0.032 (1.93)
NEBJSM50A	M50x1.5	82.60 (3.25)	92.00 (3.62)	0.13 (0.29)	0.049 (3.02)
NEBJSM63A	M63x1.5	82.60 (3.25)	92.00 (3.62)	0.26 (0.57)	0.097 (5.92)

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Nutsteel® NEBJL Series Stopper Plugs

Cable Gland Accessories

Increased Safety.

NBR IEC:
Zones 1 and 2
Ex e IIC Gb
IP66

Applications

- Stopper plug is designed for use from the outside of the enclosure to permanently or temporarily close any unused entries.
- Idea for use on weatherproof and increased safety electrical equipment in hazardous areas.

Features

- Hexagon head allows for the installation or remove of the plug with either an open ended or ring type spanner or wrench.
- NPT and metric threads standard. BSP threads available.

Standard Materials

- Aluminum

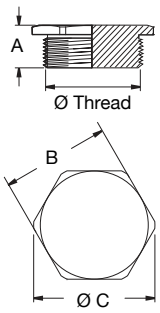
Options

- For a brass joint, replace the letter **A**, with the letters **LC**, in the 9th position; example: NEBJL01N**LC**.
- For 304 stainless steel, replace the letter **A**, with the letters **I4**, in the 9th position; example: NEBJL01N**I4**.
- For 316 stainless steel, replace the letter **A**, with the letters **I6**, in the 9th position; example: NEBJL01N**I6**.
- For 316L stainless steel, replace the letter **A**, with the letters **I6L**, in the 9th position; example: NEBJL01N**I6L**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NEBJL01**B**A.



NBR IEC Brazilian Certifications and Compliances

- Certificate of Compliance: TÜV 11.0384
- Ex Standards: ABNT NBR IEC 60079-0; 60079-7; 60529
- Other Standards: ABNT NBR IEC 60529 (IP)



Catalog Number	Ø Thread	Dimensions mm (in) A	B	C	Weight kg (lb)	Volume dm³ (in³)
NEBJL01NA	1/2"	10.00 (0.39)	34.50 (1.36)	20.00 (0.79)	0.02 (0.04)	0.008 (0.50)
NEBJL02NA	3/4"	10.00 (0.39)	43.00 (1.69)	20.00 (0.79)	0.04 (0.09)	0.013 (0.78)
NEBJL03NA	1"	10.00 (0.39)	43.00 (1.69)	20.00 (0.79)	0.13 (0.29)	0.020 (1.24)
NEBJL04NA	1-1/4"	10.00 (0.39)	52.00 (2.05)	22.00 (0.87)	0.09 (0.20)	0.032 (1.94)
NEBJL05NA	1-1/2"	10.00 (0.39)	52.00 (2.05)	22.00 (0.87)	0.13 (0.29)	0.048 (2.91)
NEBJL06NA	2"	14.00 (0.55)	52.00 (2.05)	22.00 (0.87)	0.22 (0.49)	0.080 (4.90)
NEBJL07NA	2-1/2"	14.00 (0.55)	63.00 (2.48)	21.00 (0.83)	0.31 (0.69)	0.113 (6.91)
NEBJL08NA	3"	14.00 (0.55)	63.00 (2.48)	21.00 (0.83)	0.47 (1.04)	0.173 (10.54)
NEBJL09NA	3-1/2"	19.00 (0.75)	63.00 (2.48)	21.00 (0.83)	0.81 (1.79)	0.297 (18.11)
NEBJL10NA	4"	19.00 (0.75)	63.00 (2.48)	21.00 (0.83)	1.13 (2.49)	0.415 (25.34)
NEBJLM16A	M16x1.5	10.00 (0.39)	80.00 (3.15)	22.00 (0.87)	0.02 (0.04)	0.006 (0.35)
NEBJLM20A	M20x1.5	10.00 (0.39)	80.00 (3.15)	22.00 (0.87)	0.02 (0.04)	0.008 (0.46)
NEBJLM25A	M25x1.5	10.00 (0.39)	80.00 (3.15)	22.00 (0.87)	0.03 (0.07)	0.012 (0.72)
NEBJLM32A	M32x1.5	10.00 (0.39)	80.00 (3.15)	22.00 (0.87)	0.05 (0.11)	0.019 (1.17)
NEBJLM40A	M40x1.5	10.00 (0.39)	92.00 (3.62)	29.00 (1.14)	0.08 (0.18)	0.030 (1.86)
NEBJLM50A	M50x1.5	14.00 (0.55)	92.00 (3.62)	29.00 (1.14)	0.13 (0.29)	0.049 (2.96)
NEBJLM63A	M63x1.5	14.00 (0.55)	92.00 (3.62)	29.00 (1.14)	0.23 (0.51)	0.083 (5.21)

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Nutsteel® NTPC Cable Glands

Weatherproof for non-hazardous locations

NBR IEC:
IP65

Applications

- Used to seal electrical cables in an enclosure.
- Ideal for use in industrial locations for the following terminations:
  - — Switch gear
  - — Motor control centers
  - — Sheet metal structures
  - — Cast boxes and enclosures

Features

- NPT threads standard Ø 3/8" to Ø 4".
- Provided with hexagonal ring, flat washer and tightening screw cap.

Standard Materials

- Body and cap: copperfree aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

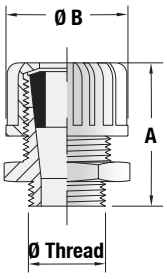


Options

- For BSP threads, replace the letter **N** with the letter **B** in the 8th position; example: NTPCA00**B**.

NBR IEC Certifications and Compliances

- Ingress Protection: IP65
- Standards: ABNT NBR IEC 60529



Ø Thread	Ø Cable mm (in) Minimum	Ø Cable mm (in) Maximum	Dimensions mm (in) A	Dimensions mm (in) Ø B	Weight kg (lb)	Catalog Number
3/8”	6.0 (0.24)	7.5 (0.30)	36 (1.42)	27 (1.06)	0.02 (0.04)	**NTPCA00N**
3/8”	7.5 (0.30)	9.0 (0.35)	36 (1.42)	27 (1.06)	0.02 (0.04)	**NTPCB00N**
3/8”	9.0 (0.35)	10.0 (0.39)	36 (1.42)	27 (1.06)	0.02 (0.04)	**NTPCC00N**
1/2”	10.0 (0.39)	12.5 (0.49)	43 (1.69)	35 (1.38)	0.03 (0.07)	**NTPCA01N**
1/2”	12.5 (0.49)	15.0 (0.59)	43 (1.69)	35 (1.38)	0.04 (0.09)	**NTPCB01N**
3/4”	15.0 (0.59)	17.5 (0.69)	52 (2.05)	42 (1.65)	0.06 (0.13)	**NTPCA02N**
3/4”	17.5 (0.69)	20.0 (0.79)	52 (2.05)	42 (1.65)	0.06 (0.13)	**NTPCB02N**
1”	20.0 (0.79)	22.5 (0.89)	60 (2.36)	45 (1.77)	0.08 (0.18)	**NTPCA03N**
1”	22.5 (0.89)	25.0 (0.98)	60 (2.36)	45 (1.77)	0.09 (0.20)	**NTPCB03N**
1-1/4”	25.0 (0.98)	28.0 (1.10)	65 (2.56)	59 (2.32)	0.16 (0.35)	**NTPCA04N**
1-1/4”	28.0 (1.10)	31.0 (1.22)	65 (2.56)	59 (2.32)	0.16 (0.35)	**NTPCB04N**
1-1/4”	31.0 (1.22)	34.0 (1.34)	65 (2.56)	59 (2.32)	0.17 (0.37)	**NTPCC04N**
1-1/2”	34.0 (1.34)	37.0 (1.46)	75 (2.95)	67 (2.64)	0.23 (0.51)	**NTPCA05N**
1-1/2”	37.0 (1.46)	40.0 (1.57)	75 (2.95)	67 (2.64)	0.24 (0.53)	**NTPCB05N**
2”	40.0 (1.57)	43.5 (1.71)	81 (3.19)	81 (3.19)	0.33 (0.73)	**NTPCA06N**
2”	43.5 (1.71)	47.5 (1.87)	81 (3.19)	81 (3.19)	0.33 (0.73)	**NTPCB06N**
2”	47.5 (1.87)	50.0 (1.97)	81 (3.19)	81 (3.19)	0.34 (0.75)	**NTPCC06N**
2-1/2”	50.0 (1.97)	54.0 (2.13)	104 (4.09)	110 (4.33)	0.81 (1.79)	**NTPCA07N**
2-1/2”	54.0 (2.13)	58.0 (2.28)	104 (4.09)	110 (4.33)	0.82 (1.81)	**NTPCB07N**
2-1/2”	58.0 (2.28)	62.0 (2.44)	104 (4.09)	110 (4.33)	0.83 (1.83)	**NTPCC07N**
3”	62.0 (2.44)	66.0 (2.60)	95 (3.74)	128 (5.04)	0.91 (2.01)	**NTPCA08N**
3”	66.0 (2.60)	71.0 (2.80)	95 (3.74)	128 (5.04)	0.92 (2.03)	**NTPCB08N**
3”	71.0 (2.80)	76.0 (2.99)	95 (3.74)	128 (5.04)	0.95 (2.09)	**NTPCC08N**
4”	76.0 (2.99)	84.0 (3.31)	135 (5.31)	165 (6.50)	2.50 (5.51)	**NTPCA10N**
4”	84.0 (3.31)	96.0 (3.78)	135 (5.31)	165 (6.50)	2.55 (5.62)	**NTPCB10N**
4”	92.0 (3.62)	100.0 (3.94)	135 (5.31)	165 (6.50)	2.60 (5.73)	**NTPCC10N**

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Nutsteel® NECL1 Conduit Outlet Box

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIB Gb
Ex tb IIIB Db
IP66

Applications

- Used for passage, derivation and junction of electrical conductors.
- Serve as pulling fittings.
- Permits access to conductors for maintenance.

Features

- Cover secured to the body with screws.
- Use silicone grease to guarantee protection index IP66.
- Entry and exit of electrical conductors must be done with heavy conduit or IP66 explosionproof cable glands.
- Ex d Protection: Enclosure designed and built so that even if an explosion occurs within the device, it does not propagate to the outside environment.
- Recommended torque: to assure the appropriate level of safety, preventing the propagation of the explosion through the gap, we recommend fixing the cover with all of the screws and with the specified torque.

Standard Materials

- Body and cover: copperfree diecast aluminum alloy
- Screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

Options

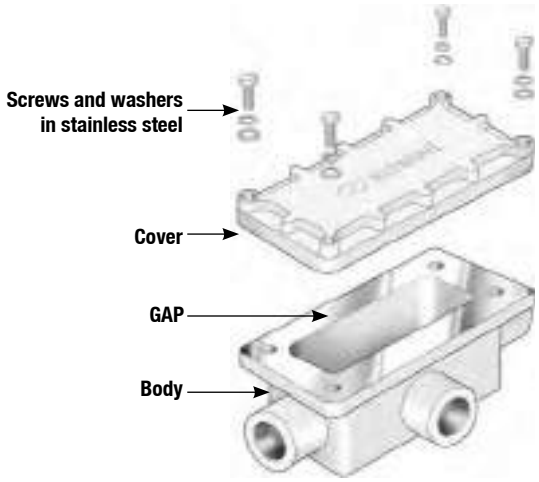
- For BSP threads, replace the letter **N** with the letter **B** in the 12th position; example: NECL110LL02**B**.

NBR IEC Certifications and Compliances

- INMETRO Certificate: TÜV 12.0668-X
- Ingress Protection (solid and liquid): IP66.
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP).



Illustrated Features

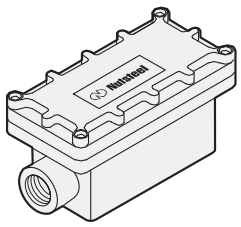
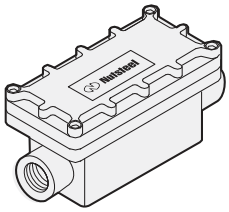
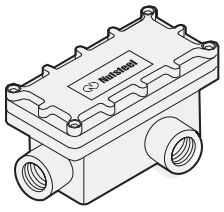
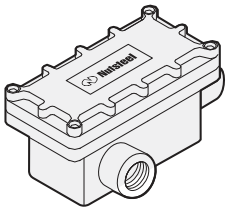


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Nutsteel® NECL1 Conduit Outlet Box

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIB Gb
Ex tb IIIB Db
IP66

	Ø Thread	Screws Torque (kgf.m)	Screws Hex Head	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
	1/2”	0.5	7/16”	0.76 (1.68)	0.86 (52.48)	**NECL110E-01N**
	3/4”	0.5	7/16”	0.76 (1.68)	0.86 (52.48)	**NECL110E-02N**
	1”	0.5	7/16”	0.89 (1.96)	1.01 (61.63)	**NECL110E-03N**
	1-1/4”	0.5	7/16”	1.69 (3.73)	2.07 (126.32)	**NECL110E-04N**
	1-1/2”	0.5	7/16”	1.54 (3.40)	2.07 (126.32)	**NECL110E-05N**
	2”	0.5	7/16”	2.39 (5.27)	3.14 (191.61)	**NECL110E-06N**
	2-1/2”	1.25	1/2”	8.45 (18.63)	9.02 (550.43)	**NECL110E-07N**
	3”	1.25	1/2”	7.85 (17.31)	9.02 (550.43)	**NECL110E-08N**
	3-1/2”	1.25	1/2”	12.23 (26.96)	16.51 (1007.50)	**NECL110E-09N**
	4”	1.25	1/2”	11.94 (26.32)	16.51 (1007.50)	**NECL110E-10N**
	1/2”	0.5	7/16”	0.81 (1.79)	0.90 (54.92)	**NECL110C-01N**
	3/4”	0.5	7/16”	0.79 (1.74)	0.90 (54.92)	**NECL110C-02N**
	1”	0.5	7/16”	1.00 (2.20)	1.04 (63.46)	**NECL110C-03N**
	1-1/4”	0.5	7/16”	1.81 (3.99)	2.16 (131.81)	**NECL110C-04N**
	1-1/2”	0.5	7/16”	1.63 (3.59)	2.16 (131.81)	**NECL110C-05N**
	2”	0.5	7/16”	2.45 (5.40)	3.24 (197.72)	**NECL110C-06N**
	2-1/2”	1.25	1/2”	8.63 (19.03)	9.94 (606.58)	**NECL110C-07N**
	3”	1.25	1/2”	8.12 (17.90)	9.94 (606.58)	**NECL110C-08N**
	3-1/2”	1.25	1/2”	12.78 (28.18)	18.15 (1107.58)	**NECL110C-09N**
	4”	1.25	1/2”	12.18 (26.85)	18.15 (1107.58)	**NECL110C-10N**
	1/2”	0.5	7/16”	0.85 (1.87)	1.06 (64.69)	**NECL110LL01N**
	3/4”	0.5	7/16”	0.83 (1.83)	1.06 (64.69)	**NECL110LL02N**
	1”	0.5	7/16”	0.98 (2.16)	1.26 (76.89)	**NECL110LL03N**
	1-1/4”	0.5	7/16”	1.80 (3.97)	2.71 (165.37)	**NECL110LL04N**
	1-1/2”	0.5	7/16”	1.61 (3.55)	2.71 (165.37)	**NECL110LL05N**
	2”	0.5	7/16”	2.49 (5.49)	4.26 (259.96)	**NECL110LL06N**
	2-1/2”	1.25	1/2”	8.64 (19.05)	10.54 (643.19)	**NECL110LL07N**
	3”	1.25	1/2”	8.01 (17.66)	10.54 (643.19)	**NECL110LL08N**
	3-1/2”	1.25	1/2”	12.71 (28.02)	20.38 (1243.66)	**NECL110LL09N**
	4”	1.25	1/2”	12.27 (27.05)	20.38 (1243.66)	**NECL110LL10N**
	1/2”	0.5	7/16”	0.81 (1.79)	1.06 (64.69)	**NECL110LR01N**
	3/4”	0.5	7/16”	0.83 (1.83)	1.06 (64.69)	**NECL110LR02N**
	1”	0.5	7/16”	0.95 (2.09)	1.26 (76.89)	**NECL110LR03N**
	1-1/4”	0.5	7/16”	1.80 (3.97)	2.71 (165.37)	**NECL110LR04N**
	1-1/2”	0.5	7/16”	1.61 (3.55)	2.71 (165.37)	**NECL110LR05N**
	2”	0.5	7/16”	2.49 (5.49)	4.26 (259.96)	**NECL110LR06N**
	2-1/2”	1.25	1/2”	8.62 (19.00)	10.54 (643.19)	**NECL110LR07N**
	3”	1.25	1/2”	8.01 (17.66)	10.54 (643.19)	**NECL110LR08N**
	3-1/2”	1.25	1/2”	12.68 (27.95)	20.38 (1243.66)	**NECL110LR09N**
	4”	1.25	1/2”	12.13 (26.74)	20.38 (1243.66)	**NECL110LR10N**

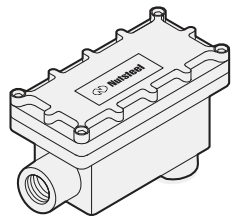
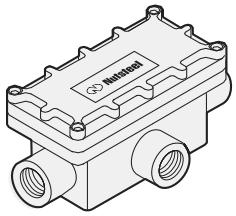
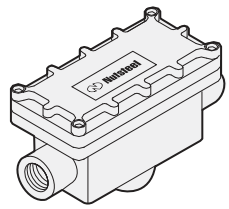
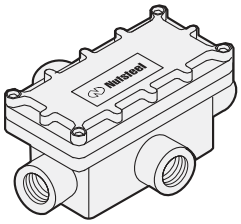
① *For BSP threads, replace the letter **N** with the letter **B** in the 12th position; example: NECL110LL02**B**.*

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NECL1 Conduit Outlet Box

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIB Gb
Ex tb IIIB Db
IP66

	Ø Thread	Screws Torque (kgf.m)	Screws Hex Head	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
	1/2”	0.5	7/16”	0.86 (1.90)	1.11 (67.74)	**NECL110LB01N**
	3/4”	0.5	7/16”	0.86 (1.90)	1.11 (67.74)	**NECL110LB02N**
	1”	0.5	7/16”	0.94 (2.07)	1.06 (64.69)	**NECL110LB03N**
	1-1/4”	0.5	7/16”	1.75 (3.86)	2.28 (139.13)	**NECL110LB04N**
	1-1/2”	0.5	7/16”	1.71 (3.77)	2.28 (139.13)	**NECL110LB05N**
	2”	0.5	7/16”	2.44 (5.38)	3.44 (209.92)	**NECL110LB06N**
	2-1/2”	1.25	1/2”	8.65 (19.07)	9.60 (585.83)	**NECL110LB07N**
	3”	1.25	1/2”	8.18 (18.03)	9.60 (585.83)	**NECL110LB08N**
	3-1/2”	1.25	1/2”	12.55 (27.67)	17.32 (1056.93)	**NECL110LB09N**
	4”	1.25	1/2”	12.20 (26.90)	17.32 (1056.93)	**NECL110LB10N**
	1/2”	0.5	7/16”	0.84 (1.85)	1.11 (67.74)	**NECL110T-01N**
	3/4”	0.5	7/16”	0.83 (1.83)	1.11 (67.74)	**NECL110T-02N**
	1”	0.5	7/16”	1.00 (2.20)	1.30 (79.33)	**NECL110T-03N**
	1-1/4”	0.5	7/16”	1.87 (4.12)	2.82 (172.09)	**NECL110T-04N**
	1-1/2”	0.5	7/16”	1.79 (3.95)	2.82 (172.09)	**NECL110T-05N**
	2”	0.5	7/16”	2.55 (5.62)	4.41 (269.11)	**NECL110T-06N**
	2-1/2”	1.25	1/2”	8.75 (19.29)	11.61 (708.49)	**NECL110T-07N**
	3”	1.25	1/2”	8.21 (18.10)	11.61 (708.49)	**NECL110T-08N**
	3-1/2”	1.25	1/2”	13.03 (28.73)	22.40 (1366.93)	**NECL110T-09N**
	4”	1.25	1/2”	12.32 (27.16)	22.40 (1366.93)	**NECL110T-10N**
	1/2”	0.5	7/16”	0.83 (1.83)	1.16 (70.79)	**NECL110TB01N**
	3/4”	0.5	7/16”	0.83 (1.83)	1.16 (70.79)	**NECL110TB02N**
	1”	0.5	7/16”	1.03 (2.27)	1.10 (67.13)	**NECL110TB03N**
	1-1/4”	0.5	7/16”	1.88 (4.14)	2.37 (144.63)	**NECL110TB04N**
	1-1/2”	0.5	7/16”	1.80 (3.97)	2.37 (144.63)	**NECL110TB05N**
	2”	0.5	7/16”	2.55 (5.62)	3.56 (217.24)	**NECL110TB06N**
	2-1/2”	1.25	1/2”	8.78 (19.36)	10.57 (645.02)	**NECL110TB07N**
	3”	1.25	1/2”	8.30 (18.30)	10.57 (645.02)	**NECL110TB08N**
	3-1/2”	1.25	1/2”	13.11 (28.90)	19.04 (1161.89)	**NECL110TB09N**
	4”	1.25	1/2”	12.35 (27.23)	19.04 (1161.89)	**NECL110TB10N**
	1/2”	0.5	7/16”	0.87 (1.92)	1.06 (64.69)	**NECL110X-01N**
	3/4”	0.5	7/16”	0.85 (1.87)	1.06 (64.69)	**NECL110X-02N**
	1”	0.5	7/16”	1.07 (2.36)	1.19 (72.62)	**NECL110X-03N**
	1-1/4”	0.5	7/16”	1.95 (4.30)	2.46 (150.12)	**NECL110X-04N**
	1-1/2”	0.5	7/16”	1.84 (4.06)	2.46 (150.12)	**NECL110X-05N**
	2”	0.5	7/16”	2.63 (5.80)	3.64 (222.13)	**NECL110X-06N**
	2-1/2”	1.25	1/2”	9.46 (20.86)	13.70 (836.03)	**NECL110X-07N**
	3”	1.25	1/2”	8.77 (19.33)	13.70 (836.03)	**NECL110X-08N**
	3-1/2”	1.25	1/2”	14.00 (30.86)	24.37 (1487.15)	**NECL110X-09N**
	4”	1.25	1/2”	13.10 (28.88)	24.37 (1487.15)	**NECL110X-10N**

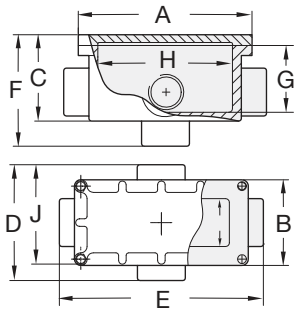
① *For BSP threads, replace the letter **N** with the letter **B** in the 12th position; example: NECL110LL02**B**.*

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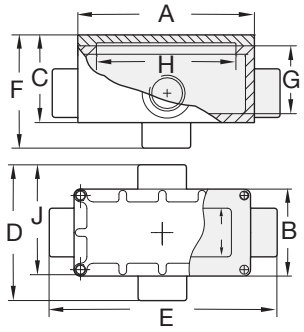
Nutsteel® NECL1 Conduit Outlet Box

Explosionproof

Dimensions in Millimeters (Inches)



Ø 1/2" to Ø 2"



Ø 2 1/2" to Ø 4"

Ø	Dimensions (in/mm)									
Thread	A	B	C	D	E	F	G	H	I	J
1/2”	150 (5.91)	79 (3.11)	70 (2.76)	93 (3.66)	164 (6.46)	90 (3.54)	46 (1.81)	110 (4.33)	39 (1.54)	86 (3.39)
3/4”	150 (5.91)	79 (3.11)	70 (2.76)	93 (3.66)	164 (6.46)	90 (3.54)	46 (1.81)	110 (4.33)	39 (1.54)	86 (3.39)
1”	161 (6.34)	84 (3.31)	72 (2.83)	96 (3.78)	173 (6.81)	76 (2.99)	49 (1.93)	118 (4.65)	44 (1.73)	90 (3.54)
1-1/4”	192 (7.56)	113 (4.45)	92 (3.62)	129 (5.08)	208 (8.19)	101 (3.98)	72 (2.83)	150 (5.91)	64 (2.52)	120 (4.72)
1-1/2”	192 (7.56)	113 (4.45)	92 (3.62)	129 (5.08)	208 (8.19)	101 (3.98)	72 (2.83)	150 (5.91)	64 (2.52)	120 (4.72)
2”	223 (8.78)	132 (5.20)	103 (4.06)	148 (5.83)	239 (9.41)	113 (4.45)	80 (3.15)	170 (6.69)	77 (3.03)	140 (5.51)
2-1/2”	279 (10.98)	169 (6.65)	172 (6.77)	233 (9.17)	342 (13.46)	205 (8.07)	137 (5.39)	220 (8.66)	111 (4.37)	201 (7.91)
3”	279 (10.98)	169 (6.65)	172 (6.77)	233 (9.17)	342 (13.46)	205 (8.07)	137 (5.39)	220 (8.66)	111 (4.37)	201 (7.91)
3-1/2”	336 (13.23)	216 (8.50)	220 (8.66)	290 (11.42)	410 (16.14)	245 (9.65)	169 (6.65)	272 (10.71)	154 (6.06)	253 (9.96)
4”	336 (13.23)	216 (8.50)	220 (8.66)	290 (11.42)	410 (16.14)	245 (9.65)	169 (6.65)	272 (10.71)	154 (6.06)	253 (9.96)

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Nutsteel® NECIR Conduit Outlet Body Inspection Cover

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex tb IIIC Db
IP66

Applications

- Corrosion-resistant: ideal indoors or outdoors.
- For pulling of wires.
- Used for passage of electrical conductors.
- Provides openings for splicing.
- Provides access for maintenance and electrical wiring inspection.
- Ideal for use where there is a risk of explosion in industries such as:
  - — Chemical plants
  - — Petrochemical plants
  - — Paint and varnish facilities
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint spray booths
  - — Flammable product storage facilities



Features

- Cover secured to the body with screws.
- Use silicone grease to guarantee IP66 protection index.
- To assure the appropriate level of safety and prevent the propagation of an explosion through the gap, we recommend fixing the cover with all of the screws tightened to the specified torque.
- NPT and BSP threads: Ø 1/2" to Ø 4". Metric threads: M20 to M100.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws: AISI 304 stainless steel

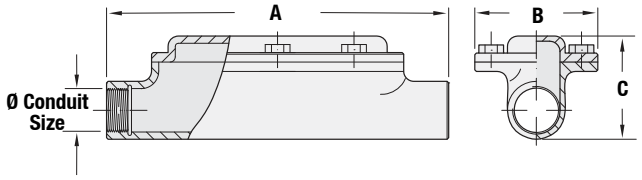
Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NECIR01**N**.
- For metric threads, replace the letter **N** with the letter **M**, in the 8th position; example: NECIR01**M**.

Dimensions mm (in)



NBR IEC Brazilian Certifications and Compliances

- Ex Standards: ABNT NBR IEC 60079-0; 60079-1
- Other Standards: ABNT NBR IEC 60529 (IP)
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.1165 X
- Ingress Protection (solid and liquid): IP66

Conduit Size	Dimensions mm (in) A	B	C	Screws Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
1/2"	230 (9.06)	83 (3.27)	65 (2.56)	0.50	1/2"	0.91 (2.00)	1.2 (73.2)	**NECIR01N**
3/4"	230 (9.06)	83 (3.27)	65 (2.56)	0.50	1/2"	0.90 (1.98)	1.2 (73.2)	**NECIR02N**
1"	318 (12.52)	103 (4.06)	90 (3.54)	0.50	1/2"	1.87 (4.11)	2.9 (177.0)	**NECIR03N**
1-1/4"	318 (12.52)	103 (4.06)	90 (3.54)	0.50	1/2"	1.82 (4.00)	2.9 (177.0)	**NECIR04N**
1-1/2"	403 (15.87)	120 (4.72)	104 (4.09)	0.50	1/2"	2.84 (6.25)	5.0 (305.1)	**NECIR05N**
2"	403 (15.87)	120 (4.72)	104 (4.09)	0.50	1/2"	2.74 (6.03)	5.0 (305.1)	**NECIR06N**
2-1/2"	572 (22.52)	174 (6.85)	150 (5.91)	1.50	9/16"	7.16 (15.75)	14.9 (909.3)	**NECIR07N**
3"	572 (22.52)	174 (6.85)	150 (5.91)	1.50	9/16"	6.89 (15.16)	14.9 (909.3)	**NECIR08N**
3-1/2"	722 (28.43)	202 (7.95)	187 (7.36)	1.50	9/16"	12.54 (27.59)	27.2 (1659.8)	**NECIR09N**
4"	722 (28.43)	202 (7.95)	187 (7.36)	1.50	9/16"	12.01 (26.42)	27.2 (1659.8)	**NECIR10N**

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Nutsteel® NECNI 90° Pulling Elbow

Explosionproof

NBR IEC
Zone 1 and 2
Ex d IIB Gb
Ex tb IIIA Db
IP54

Applications

- Used for passage and junction of wires and cables in explosionproof installations.
- Serve as pulling fittings.
- Provide openings for splicing of wires.
- Make 90º bends in conduit runs.
- Permits access to conductors for maintenance.

Features

- NPT threads standard Ø 1/2" to Ø 4".
- Conductors can be pulled straight through.
- Cover easily installed.

Standard Materials

- Body and cover: copperfree diecast aluminum alloy
- Screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 8th position; example: NECNI01**B**.

NBR IEC Certifications and Compliances

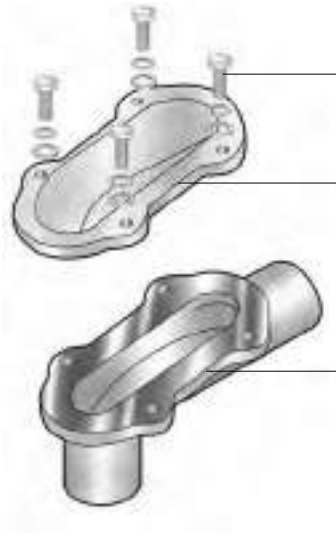
- Certification Type NECNI
- Zones 1 and 2, Gas
  — IEC Marking: Ex d IIB
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 11.0462-U
- Ingress Protection: IP54
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

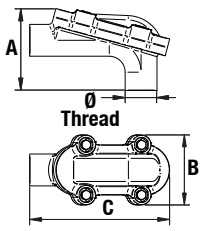
Related Products

- We recommend using Gapsteel® between the body and cover whenever the elbow is opened.



Illustrated Features





Ø Thread	Dimensions mm (in) A	B	C	Weight kg (lb)	Catalog Number
1/2”	110 (4.33)	85 (3.35)	175 (6.89)	0.70 (1.54)	**NECNI01N**
3/4”	110 (4.33)	85 (3.35)	175 (6.89)	0.68 (1.50)	**NECNI02N**
1”	120 (4.72)	100 (3.94)	260 (10.24)	1.34 (2.95)	**NECNI03N**
1-1/4”	170 (6.69)	140 (5.51)	350 (13.78)	3.07 (6.77)	**NECNI04N**
1-1/2”	170 (6.69)	140 (5.51)	350 (13.78)	3.02 (6.66)	**NECNI05N**
2”	170 (6.69)	140 (5.51)	355 (13.98)	3.79 (8.36)	**NECNI06N**
2-1/2”	230 (9.06)	170 (6.69)	480 (18.90)	5.64 (12.43)	**NECNI07N**
3”	230 (9.06)	170 (6.69)	480 (18.90)	5.18 (11.42)	**NECNI08N**
3-1/2”	255 (10.04)	205 (8.07)	725 (28.54)	9.20 (20.28)	**NECNI09N**
4”	255 (10.04)	205 (8.07)	725 (28.54)	9.00 (19.84)	**NECNI10N**

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Nutsteel® NEUND Male/Male Unions

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb

Applications

- Used for joining two lengths of conduit and connecting conduit to explosionproof enclosures.
- Facilitates modifications, permits the removal of enclosures without turning or removal of conduit.

Features

- Union is composed of a composite body, counter piece and hexagonal ring Ø 1/2" to Ø 1-1/2" and octagonal Ø 2" to Ø 4".
- NPT threads standard Ø 1/2" to Ø 4".

Standard Materials

- Aluminum

Options

- For cast iron with electrolytic galvanizing, replace the letter **A**, with the letter **E**, in the 9th position; example: NEUND01N**E**.
- For cast iron with hot dip galvanizing, replace the letter **A**, with the letter **G**, in the 9th position; example: NEUND01N**G**.
- For 304 stainless steel, replace the letter **A**, with the letters **I4**, in the 9th position; example: NEUND01N**IA**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NEUND01**B**A.

NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0128
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

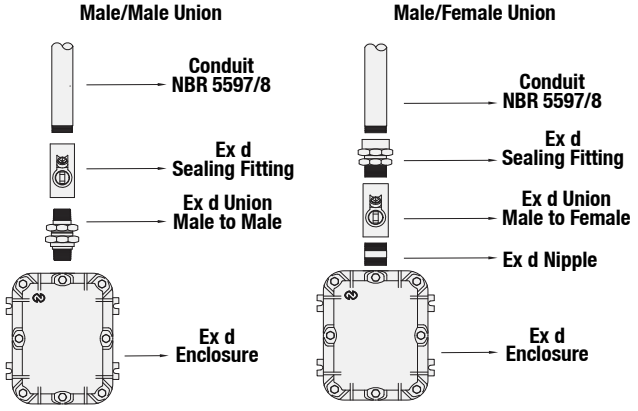
Related Products

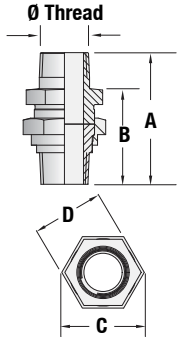
- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Illustrated Features

This male-male union offers a cost advantage of material and labor. The installation below compares traditional male/female unions to the male/male union. In the male/male union there is no need to use the nipple as shown.





Ø Thread	A	B	C	D	Weight kg (lb) Aluminum	Weight kg (lb) Iron	Volume dm³ (in³)	Catalog Number
1/2"	56.5 (2.22)	41.5 (1.63)	40.0 (1.57)	35.0 (1.38)	0.072 (0.16)	0.215 (0.47)	0.825 (50.34)	**NEUND01NA**
3/4"	64.5 (2.54)	45.0 (1.77)	47.5 (1.87)	41.5 (1.63)	0.099 (0.22)	0.270 (0.60)	0.121 (7.38)	**NEUND02NA**
1"	71.0 (2.80)	47.0 (1.85)	54.5 (2.15)	47.5 (1.87)	0.143 (0.32)	0.363 (0.80)	0.176 (10.74)	**NEUND03NA**
1-1/4"	73.0 (2.87)	50.0 (1.97)	75.6 (2.98)	65.5 (2.58)	0.256 (0.56)	0.770 (1.70)	0.275 (16.78)	**NEUND04NA**
1-1/2"	77.5 (3.05)	53.0 (2.09)	80.5 (3.17)	70.5 (2.78)	0.330 (0.73)	0.853 (1.88)	0.429 (26.18)	**NEUND05NA**
2"	89.5 (3.52)	63.0 (2.48)	100.0 (3.94)	88.0 (3.46)	0.561 (1.24)	1.480 (3.26)	0.715 (43.63)	**NEUND06NA**
2-1/2"	110.0 (4.33)	75.0 (2.95)	126.0 (4.96)	112.0 (4.41)	0.809 (1.78)	2.118 (4.67)	1.045 (63.77)	**NEUND07NA**
3"	103.0 (4.06)	70.0 (2.76)	145.0 (5.71)	126.4 (4.98)	1.067 (2.35)	2.778 (6.12)	1.507 (91.96)	**NEUND08NA**
3-1/2"	128.0 (5.04)	92.0 (3.62)	166.0 (6.54)	143.0 (5.63)	1.320 (2.91)	3.432 (7.57)	1.936 (118.14)	**NEUND09NA**
4"	120.0 (4.72)	84.0 (3.31)	179.0 (7.05)	157.0 (6.18)	1.584 (3.49)	3.900 (8.60)	2.530 (154.39)	**NEUND10NA**

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Nutsteel® NEUNM Male/Female Unions

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb



Applications

- Used for joining two lengths of conduit and connecting conduit to explosionproof enclosures.
- Facilitates modifications, permits the removal of enclosures without turning or removal of conduit.

Features

- Union is composed of a composite body, counter piece and hexagonal ring Ø 1/2" to Ø 1-1/2" and octagonal Ø 2" to Ø 4".
- NPT threads standard Ø 1/2" to Ø 4".

Standard Materials

- Electroplated cast iron

Options

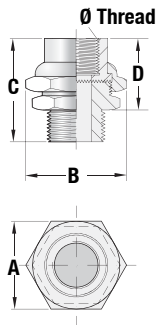
- For hot-dipped cast iron, replace the letter **E** with the letter **G** in the 9th position; example: NEUNM01N**G**.
- For cast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NEUNM01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NEUNM01**B**E.

NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0128
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



	Dimensions mm (in)				Weight kg (lb)		Volume	
Ø Thread	A	B	C	D	Aluminum	Iron	dm^3 (in^3)	Catalog Number
1/2”	35 (1.38)	40 (1.57)	58 (2.28)	40 (1.57)	0.065 (0.14)	0.195 (0.43)	0.750 (45.77)	**NEUNM01NE**
3/4”	41 (1.61)	47 (1.85)	65 (2.56)	45 (1.77)	0.090 (0.20)	0.245 (0.54)	0.110 (6.71)	**NEUNM02NE**
1”	48 (1.89)	55 (2.17)	71 (2.80)	46 (1.81)	0.130 (0.29)	0.330 (0.73)	0.160 (9.76)	**NEUNM03NE**
1-1/4”	70 (2.76)	65 (2.56)	77 (3.03)	54 (2.13)	0.233 (0.51)	0.700 (1.54)	0.250 (15.26)	**NEUNM04NE**
1-1/2”	70 (2.76)	80 (3.15)	77 (3.03)	54 (2.13)	0.300 (0.66)	0.775 (1.71)	0.390 (23.80)	**NEUNM05NE**
2”	87 (3.43)	99 (3.90)	88 (3.46)	62 (2.44)	0.510 (1.12)	1.345 (2.97)	0.650 (39.67)	**NEUNM06NE**
2-1/2”	104 (4.09)	111 (4.37)	98 (3.86)	68 (2.68)	0.735 (1.62)	1.925 (4.24)	0.950 (57.97)	**NEUNM07NE**
3”	122 (4.80)	132 (5.20)	101 (3.98)	68 (2.68)	0.970 (2.14)	2.525 (5.57)	1.370 (83.60)	**NEUNM08NE**
3-1/2”	146 (5.75)	157 (6.18)	118 (4.65)	82 (3.23)	1.200 (2.65)	3.120 (6.88)	1.760 (107.40)	**NEUNM09NE**
4”	146 (5.75)	157 (6.18)	118 (4.65)	82 (3.23)	1.440 (3.18)	3.545 (7.82)	2.300 (140.35)	**NEUNM10NE**

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Nutsteel® NEUNF Female/Female Unions

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb



Applications

- Used for joining two lengths of conduit and connecting conduit to explosionproof enclosures.
- Facilitates modifications, permits the removal of enclosures without turning or removal of conduit.

Features

- Union is composed of a composite body, counter piece and hexagonal ring Ø 1/2" to Ø 1-1/2" and octagonal Ø 2" to Ø 4".
- NPT threads standard Ø 1/2" to Ø 4".

Standard Materials

- Electroplated cast iron

Options

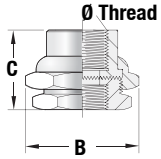
- For hot-dipped cast iron, replace the letter **E** with the letter **G** in the 9th position; example: NEUNF01N**G**.
- For cast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NEUNF01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NEUNF01**B**E.

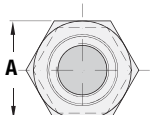
NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0128
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.





Ø Thread	Dimensions mm (in) A	B	C	Weight kg (lb) Aluminum	Iron	Volume dm³ (in³)	Catalog Number
1/2”	35 (1.38)	40 (1.57)	43 (1.69)	0.055 (0.12)	0.150 (0.33)	0.053 (3.23)	**NEUNF01NE**
3/4”	40 (1.57)	47 (1.85)	49 (1.93)	0.075 (0.17)	0.205 (0.45)	0.078 (4.76)	**NEUNF02NE**
1”	48 (1.89)	55 (2.17)	50 (1.97)	0.100 (0.22)	0.275 (0.61)	0.115 (7.02)	**NEUNF03NE**
1-1/4”	78 (3.07)	65 (2.56)	55 (2.17)	0.200 (0.44)	0.601 (1.32)	0.180 (10.98)	**NEUNF04NE**
1-1/2”	78 (3.07)	80 (3.15)	55 (2.17)	0.235 (0.52)	0.645 (1.42)	0.270 (16.48)	**NEUNF05NE**
2”	88 (3.46)	99 (3.90)	65 (2.56)	0.425 (0.94)	1.140 (2.51)	0.450 (27.46)	**NEUNF06NE**
2-1/2”	103 (4.06)	111 (4.37)	71 (2.80)	0.610 (1.34)	1.640 (3.62)	0.670 (40.89)	**NEUNF07NE**
3”	120 (4.72)	132 (5.20)	72 (2.83)	0.720 (1.59)	1.965 (4.33)	0.930 (56.75)	**NEUNF08NE**
3-1/2”	140 (5.51)	157 (6.18)	85 (3.35)	0.830 (1.83)	2.290 (5.05)	1.200 (73.23)	**NEUNF09NE**
4”	140 (5.51)	157 (6.18)	85 (3.35)	1.080 (2.38)	3.160 (6.97)	1.600 (97.64)	**NEUNF10NE**

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Nutsteel® NECNL 90° Elbow

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb



Applications

- Used to make 90º bends in conduit runs.

Features

- NPT threads standard Ø 1/2" to Ø 4".
- Female to female threads.

Standard Materials

- Copperfree diecast aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

Options

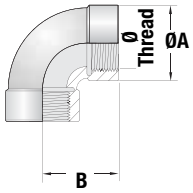
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NECNL01**B**.

NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0127
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Ø Thread	Dimensions mm (in) ØA	B	Weight kg (lb)	Catalog Number
1/2”	33 (1.30)	40 (1.57)	0.09 (0.19)	**NECNL01N**
3/4”	38 (1.50)	44 (1.73)	0.12 (0.26)	**NECNL02N**
1”	46 (1.81)	47 (1.85)	0.17 (0.37)	**NECNL03N**
1-1/4”	57 (2.24)	60 (2.36)	0.28 (0.62)	**NECNL04N**
1-1/2”	65 (2.56)	97 (3.82)	0.66 (1.46)	**NECNL05N**
2”	79 (3.11)	130 (5.12)	1.03 (2.27)	**NECNL06N**
2-1/2”	110 (4.33)	200 (7.87)	4.01 (8.84)	**NECNL07N**
3”	110 (4.33)	200 (7.87)	3.67 (8.09)	**NECNL08N**
3-1/2”	130 (5.12)	205 (8.07)	5.73 (12.63)	**NECNL09N**
4”	130 (5.12)	205 (8.07)	4.96 (10.93)	**NECNL10N**

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NEBR Reducing Bushing

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb

Applications

- Used to reduce conduit entries to a smaller size.
- Used to reduce the trade size of a tapped hole or hub.

Features

- NPT threads standard Ø 3/4" to Ø 4".

Standard Materials

- Aluminum

Options

- For hot-dipped cast iron, replace the letter **A** with the letter **G** in the 11th position; example: NEBR02N01N**G**.
- For electroplated galvanized cast iron, replace the letter **A** with the letter **E** in the 11th position; example: NEBR02N01N**E**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NEBR02N01**B**A.

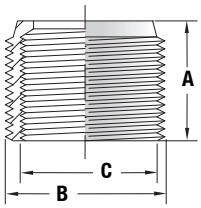


NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0124
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Dimensions mm (in)		Weight kg (lb)		
Ø Thread (BXC)	A	Iron	Aluminum	Catalog Number
3/4” x 1/2”	23 (0.90)	0.04 (0.09)	0.01 (0.02)	**NEBR02N01NA**
1” x 1/2”	25 (0.98)	0.08 (0.18)	0.02 (0.04)	**NEBR03N01NA**
1” x 3/4”	25 (0.98)	0.05 (0.11)	0.02 (0.04)	**NEBR03N02NA**
1-1/4” x 1/2”	25 (0.98)	0.18 (0.40)	0.06 (0.13)	**NEBR04N01NA**
1-1/4” x 3/4”	25 (0.98)	0.15 (0.33)	0.05 (0.11)	**NEBR04N02NA**
1-1/4” x 1”	25 (0.98)	0.10 (0.22)	0.04 (0.09)	**NEBR04N03NA**
1-1/2” x 1/2”	25 (0.98)	0.25 (0.55)	0.09 (0.20)	**NEBR05N01NA**
1-1/2” x 3/4”	25 (0.98)	0.22 (0.49)	0.07 (0.15)	**NEBR05N02NA**
1-1/2” x 1”	25 (0.98)	0.16 (0.35)	0.06 (0.13)	**NEBR05N03NA**
1-1/2” x 1-1/4”	25 (0.98)	0.08 (0.18)	0.03 (0.07)	**NEBR05N04NA**
2” x 1/2”	25 (0.98)	0.48 (1.06)	0.19 (0.42)	**NEBR06N01NA**
2” x 3/4”	25 (0.98)	0.44 (0.97)	0.17 (0.37)	**NEBR06N02NA**
2” x 1”	25 (0.98)	0.38 (0.84)	0.15 (0.33)	**NEBR06N03NA**
2” x 1-1/4”	25 (0.98)	0.31 (0.68)	0.11 (0.24)	**NEBR06N04NA**
2” x 1-1/2”	25 (0.98)	0.21 (0.46)	0.08 (0.18)	**NEBR06N05NA**
2-1/2” x 1/2”	30 (1.18)	0.91 (2.01)	0.28 (0.62)	**NEBR07N01NA**
2-1/2” x 3/4”	30 (1.18)	0.82 (1.81)	0.26 (0.57)	**NEBR07N02NA**
2-1/2” x 1”	30 (1.18)	0.74 (1.63)	0.24 (0.53)	**NEBR07N03NA**
2-1/2” x 1-1/4”	30 (1.18)	0.67 (1.48)	0.20 (0.44)	**NEBR07N04NA**
2-1/2” x 1-1/2”	30 (1.18)	0.53 (1.17)	0.18 (0.40)	**NEBR07N05NA**
2-1/2” x 2”	30 (1.18)	0.29 (0.64)	0.12 (0.26)	**NEBR07N06NA**
3”x 1/2”	30 (1.18)	1.35 (2.98)	0.39 (0.86)	**NEBR08N01NA**
3”x 3/4”	30 (1.18)	1.32 (2.91)	0.39 (0.86)	**NEBR08N02NA**
3”x 1”	30 (1.18)	1.20 (2.65)	0.38 (0.84)	**NEBR08N03NA**
3”x 1-1/4”	30 (1.18)	1.07 (2.36)	0.33 (0.73)	**NEBR08N04NA**
3”x 1-1/2”	30 (1.18)	0.97 (2.14)	0.34 (0.75)	**NEBR08N05NA**
3”x 2”	30 (1.18)	0.73 (1.61)	0.26 (0.57)	**NEBR08N06NA**
3”x 2-1/2”	30 (1.18)	0.45 (0.99)	0.16 (0.35)	**NEBR08N07NA**
3-1/2” x 2-1/2”	30 (1.18)	0.50 (1.10)	0.27 (0.60)	**NEBR09N07NA**
4”x 1/2”	30 (1.18)	2.23 (4.92)	0.72 (1.59)	**NEBR10N01NA**
4”x 3/4”	30 (1.18)	2.18 (4.81)	0.72 (1.59)	**NEBR10N02NA**
4” x 1”	30 (1.18)	2.18 (4.81)	0.69 (1.52)	**NEBR10N03NA**
4”x 1-1/2”	30 (1.18)	1.97 (4.34)	0.61 (1.34)	**NEBR10N05NA**
4”x 2”	30 (1.18)	1.66 (3.66)	0.54 (1.19)	**NEBR10N06NA**
4”x 2-1/2”	30 (1.18)	1.37 (3.02)	0.45 (0.99)	**NEBR10N07NA**
4”x 3”	30 (1.18)	0.94 (2.07)	0.31 (0.68)	**NEBR10N08NA**

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Nutsteel® NELR Reducing Coupling

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb

Applications

- Used to join two different sizes of conduit together.
- Replaces a coupling and reducer in a conduit installation.
- Used to enlarge a threaded hub in an enclosure or fitting.

Features

- NPT thread Ø 1/2" to 4".

Standard Materials

- Electroplated cast iron

Options

- For hot dipped cast iron, replace the letter **E** with the letter **G** in the 11th position; example: NELR02N01N**G**.
- For diecast aluminum, replace the letter **E** with the letter **A** in the 11th position; example: NELR02N01N**A**.
- For 304 stainless steel, replace the letter **E** with the letter **I** in the 11th position; example: NELR02N01N**I**.
- For 316 stainless steel, replace the letter **E** with the letter **I6** in the 11th position; example: NELR02N01N**I6**.



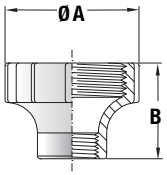
- For BSP male and female threads, replace the letter **N** with the letter **B**, in the 7th and 10th positions; example: NELR02**B**01**B**E.

NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0125
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Ø Thread	Dimensions mm (in) Ø A	B	Weight kg (lb) Iron	Aluminum	Catalog Number
3/4" x 1/2"	35 (1.38)	35 (1.38)	0.04 (0.09)	0.01 (0.02)	**NELR02N01NE**
1" x 1/2"	40 (1.57)	40 (1.57)	0.08 (0.18)	0.02 (0.04)	**NELR03N01NE**
1" x 3/4"	40 (1.57)	40 (1.57)	0.05 (0.11)	0.02 (0.04)	**NELR03N02NE**
1-1/4" x 1/2"	50 (1.97)	50 (1.97)	0.18 (0.40)	0.06 (0.13)	**NELR04N01NE**
1-1/4" x 3/4"	50 (1.97)	50 (1.97)	0.15 (0.33)	0.05 (0.11)	**NELR04N02NE**
1-1/4" x 1"	50 (1.97)	50 (1.97)	0.10 (0.22)	0.04 (0.09)	**NELR04N03NE**
1-1/2" x 1/2"	60 (2.36)	50 (1.97)	0.25 (0.55)	0.09 (0.20)	**NELR05N01NE**
1-1/2" x 3/4"	60 (2.36)	50 (1.97)	0.22 (0.49)	0.07 (0.15)	**NELR05N02NE**
1-1/2" x 1"	60 (2.36)	50 (1.97)	0.16 (0.35)	0.06 (0.13)	**NELR05N03NE**
1-1/2" x 1-1/4"	60 (2.36)	50 (1.97)	0.08 (0.18)	0.03 (0.07)	**NELR05N04NE**
2" x 1/2"	70 (2.76)	65 (2.56)	0.48 (1.06)	0.19 (0.42)	**NELR06N01NE**
2" x 3/4"	70 (2.76)	65 (2.56)	0.44 (0.97)	0.17 (0.37)	**NELR06N02NE**
2" x 1"	70 (2.76)	65 (2.56)	0.38 (0.84)	0.15 (0.33)	**NELR06N03NE**
2" x 1-1/4"	70 (2.76)	65 (2.56)	0.31 (0.68)	0.11 (0.24)	**NELR06N04NE**
2" x 1-1/2"	70 (2.76)	65 (2.56)	0.21 (0.46)	0.08 (0.18)	**NELR06N05NE**
2-1/2" x 1/2"	85 (3.35)	75 (2.95)	0.91 (2.01)	0.28 (0.62)	**NELR07N01NE**
2-1/2" x 3/4"	85 (3.35)	75 (2.95)	0.82 (1.81)	0.26 (0.57)	**NELR07N02NE**
2-1/2" x 1"	85 (3.35)	75 (2.95)	0.74 (1.63)	0.24 (0.53)	**NELR07N03NE**
2-1/2" x 1-1/4"	85 (3.35)	75 (2.95)	0.67 (1.48)	0.20 (0.44)	**NELR07N04NE**
2-1/2" x 1-1/2"	85 (3.35)	75 (2.95)	0.53 (1.17)	0.18 (0.40)	**NELR07N05NE**
2-1/2" x 2"	85 (3.35)	75 (2.95)	0.29 (0.64)	0.12 (0.26)	**NELR07N06NE**
3" x 1/2"	100 (3.94)	85 (3.35)	1.35 (2.98)	0.39 (0.86)	**NELR08N01NE**
3" x 3/4"	100 (3.94)	85 (3.35)	1.32 (2.91)	0.39 (0.86)	**NELR08N02NE**
3" x 1"	100 (3.94)	85 (3.35)	1.20 (2.65)	0.38 (0.84)	**NELR08N03NE**
3" x 1-1/4"	100 (3.94)	85 (3.35)	1.07 (2.36)	0.33 (0.73)	**NELR08N04NE**
3" x 1-1/2"	100 (3.94)	85 (3.35)	0.97 (2.14)	0.34 (0.75)	**NELR08N05NE**
3" x 2"	100 (3.94)	85 (3.35)	0.73 (1.61)	0.26 (0.57)	**NELR08N06NE**
3" x 2-1/2"	100 (3.94)	85 (3.35)	0.45 (0.99)	0.16 (0.35)	**NELR08N07NE**
3-1/2" x 2-1/2"	128 (5.04)	85 (3.35)	0.50 (1.10)	0.27 (0.60)	**NELR09N07NE**
4" x 1/2"	128 (5.04)	100 (3.94)	2.23 (4.92)	0.72 (1.59)	**NELR10N01NE**
4" x 3/4"	128 (5.04)	100 (3.94)	2.18 (4.81)	0.72 (1.59)	**NELR10N02NE**
4" x 1"	128 (5.04)	100 (3.94)	2.18 (4.81)	0.69 (1.52)	**NELR10N03NE**
4" x 1-1/2"	128 (5.04)	100 (3.94)	1.97 (4.34)	0.61 (1.34)	**NELR10N05NE**
4" x 2"	128 (5.04)	100 (3.94)	1.66 (3.66)	0.54 (1.19)	**NELR10N06NE**
4" x 2-1/2"	128 (5.04)	100 (3.94)	1.37 (3.02)	0.45 (0.99)	**NELR10N07NE**
4" x 3"	128 (5.04)	100 (3.94)	0.94 (2.07)	0.31 (0.68)	**NELR10N08NE**

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NERD Threaded Reducer

Explosionproof

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex e IIC Gb
IP66

Applications

- For use at junctions between conduit and explosionproof, weatherproof, and increased safety enclosures, with different threads.

Features

- External (male) metric thread Ø M16 x 1.5 up to Ø M100 x 2.0.
- Internal (female) NPT thread Ø 1/2" to 4".

Standard Materials

- Aluminum

Options

- For nickel plated brass, replace the letter **A** with the letters **LC** in the 12th position; example: NERDM25XN01**LC**.
- For 304 stainless steel, replace the letter **A** with the letters **I4** in the 12th position; example: NERDM25XN01**I4**.
- For 316 stainless steel, replace the letter **A** with the letters **I6** in the 12th position; example: NERDM25X6N01**I6**.
- For 316L stainless steel, replace the letter **A** with the letters **I6L** in the 12th position; example: NERDM25X6N01**I6L**.
- For male and female metric threads, replace the letter **N** with the letter **M**, in the 9th position and replace the NPT thread size with the metric size in the 10th and 11th positions; example: NERDM25X**M16**A.
- For male and female BSP threads, replace the letter **N** with the letter **B**, in the 9th position and replace the metric male thread size with the BSP thread size in the 6th and 7th positions; example: NERD**B03**X**B**01A.
- For male metric thread and female BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NERDM25X**B**01A.



- For male and female BSP threads, replace the letter **N** with the letter **B**, in the 5th and 9th positions and replace the metric male thread size with the BSP thread size in the 6th and 7th positions; example: NERD**B03**X**B**01A.

NBR IEC Certifications and Compliances

- Ingress Protection: IP66
- INMETRO Certificate: TÜV 12.0466
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.

Catalog Numbering Guide

NERD	M	25	X	N	01	A
NERD Series: NBR IEC Certified	Male Thread Type: B - BSP N - NPT M - Metric	Male Thread Size: 01 - 1/2" BSP/NPT 02 - 3/4" BSP/NPT 03 - 1" BSP/NPT 04 - 1-1/4" BSP/NPT 05 - 1-1/2" BSP/NPT 06 - 2" BSP/NPT 07 - 2-1/2" BSP/NPT 08 - 3" BSP/NPT 09 - 3-1/2" BSP/NPT 10 - 4" BSP/NPT 16 - M16 20 - M20 25 - M25 32 - M32 40 - M40 50 - M50 63 - M63 75 - M75 90 - M90 10 - M100	Used to Separate Male Thread Type and Size from Female Thread Type and Size	Female Thread Type: B - BSP N - NPT M - Metric	Female Thread Size: 01 - 1/2" BSP/NPT 02 - 3/4" BSP/NPT 03 - 1" BSP/NPT 04 - 1-1/4" BSP/NPT 05 - 1-1/2" BSP/NPT 06 - 2" BSP/NPT 07 - 2-1/2" BSP/NPT 08 - 3" BSP/NPT 09 - 3-1/2" BSP/NPT 10 - 4" BSP/NPT 16 - M16 20 - M20 25 - M25 32 - M32 40 - M40 50 - M50 63 - M63 75 - M75 90 - M90 10 - M100	Materials: A - Aluminum LC - Nickel Plated Brass I4 - 304 Stainless Steel I6 – 316 Stainless Steel I6L – 316L Stainless Steel

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Nutsteel® NERD Threaded Reducer

Explosionproof

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex e IIC Gb
IP66

Ø Thread Male	Ø Thread Female	Dimensions mm (in) A	Dimensions mm (in) B	Dimensions mm (in) C	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
M25x1.5	1/2"	31.8 (1.25)	34.5 (1.36)	20.0 (0.79)	0.01 (0.03)	0.00 (0.28)	**NERDM25XN01A**
M32x1.5	1/2"	38.1 (1.50)	43.0 (1.69)	20.0 (0.79)	0.07)0.03	0.01 (0.68)	**NERDM32XN01A**
M32x1.5	3/4"	38.1 (1.50)	43.0 (1.69)	20.0 (0.79)	0.02 (0.04)	0.01 (0.44)	**NERDM32XN02A**
M40x1.5	1/2"	47.5 (1.87)	52.0 (2.05)	22.0 (0.87)	0.07 (0.14)	0.02 (1.46)	**NERDM40XN01A**
M40x1.5	3/4"	47.5 (1.87)	52.0 (2.05)	22.0 (0.87)	0.05 (0.12)	0.02 (1.19)	**NERDM40XN02A**
M40x1.5	1”	47.5 (1.87)	52.0 (2.05)	22.0 (0.87)	0.03 (0.07)	0.01 (0.77)	**NERDM40XN03A**
M50x1.5	1/2"	57.2 (2.25)	63.0 (2.48)	21.1 (0.83)	0.11 (0.24)	0.04 (2.47)	**NERDM50XN01A**
M50x1.5	3/4"	57.2 (2.25)	63.0 (2.48)	21.1 (0.83)	0.10 (0.22)	0.04 (2.20)	**NERDM50XN02A**
M50x1.5	1”	57.2 (2.25)	63.0 (2.48)	21.1 (0.83)	0.08 (0.17)	0.03 (1.78)	**NERDM50XN03A**
M50x1.5	1-1/4”	57.2 (2.25)	63.0 (2.48)	21.1 (0.83)	0.05 (0.10)	0.02 (1.05)	**NERDM50XN04A**
M63x1.5	3/4"	73.0 (2.87)	80.0 (3.15)	22.0 (0.87)	0.17 (0.37)	0.06 (3.83)	**NERDM63XN02A**
M63x1.5	1”	73.0 (2.87)	80.0 (3.15)	22.0 (0.87)	0.15 (0.34)	0.06 (3.42)	**NERDM63XN03A**
M63x1.5	1-1/4”	73.0 (2.87)	80.0 (3.15)	22.0 (0.87)	0.12 (0.27)	0.05 (2.75)	**NERDM63XN04A**
M63x1.5	1-1/2”	73.0 (2.87)	80.0 (3.15)	22.0 (0.87)	0.10 (0.22)	0.04 (2.20)	**NERDM63XN05A**
M75x1.5	1”	82.6 (3.25)	92.0 (3.62)	29 (1.14)	0.39 (0.86)	0.14 (8.82)	**NERDM75XN03A**
M75x1.5	1-1/4”	82.6 (3.25)	92.0 (3.62)	29 (1.14)	0.34 (0.76)	0.13 (7.71)	**NERDM75XN04A**
M75x1.5	1-1/2”	82.6 (3.25)	92.0 (3.62)	29 (1.14)	0.30 (0.67)	0.11 (6.79)	**NERDM75XN05A**
M75x1.5	2”	82.6 (3.25)	92.0 (3.62)	29 (1.14)	0.20 (0.45)	0.08 (4.59)	**NERDM75XN06A**
M90x2.0	1-1/4”	95.2 (3.75)	106.0 (4.17)	35 (1.38)	0.51 (1.13)	0.19 (11.51)	**NERDM90XN04A**
M90x2.0	1-1/2”	95.2 (3.75)	106.0 (4.17)	35 (1.38)	0.47 (1.04)	0.17 (10.59)	**NERDM90XN05A**
M90x2.0	2”	95.2 (3.75)	106.0 (4.17)	35 (1.38)	0.37 (0.82)	0.14 (8.39)	**NERDM90XN06A**
M90x2.0	2-1/2”	95.2 (3.75)	106.0 (4.17)	35 (1.38)	0.25 (0.54)	0.09 (5.55)	**NERDM90XN07A**
M100x2.0	1-1/2”	110.0 (4.33)	122.0 (4.80)	35 (1.38)	0.64 (1.42)	0.24 (14.47)	**NERDM100XN05A**
M100x2.0	2”	110.0 (4.33)	122.0 (4.80)	35 (1.38)	0.55 (1.20)	0.20 (12.27)	**NERDM100XN06A**
M100x2.0	2-1/2”	110.0 (4.33)	122.0 (4.80)	35 (1.38)	0.42 (0.92)	0.15 (9.43)	**NERDM100XN07A**
M100x2.0	3”	110.0 (4.33)	122.0 (4.80)	35 (1.38)	0.23 (0.50)	0.08 (5.12)	**NERDM100XN08A**
3/4"	1/2"	31.8 (1.25)	34.5 (1.36)	20.0 (0.79)	0.02 (0.03)	0.01 (0.34)	**NERDN02XN01A**
1"	1/2"	38.1 (1.50)	43.0 (1.69)	20.0 (0.79)	0.03 (0.07)	0.01 (0.75)	**NERDN03XN01A**
1"	3/4"	38.1 (1.50)	43.0 (1.69)	20.0 (0.79)	0.02 (0.05)	0.01 (0.50)	**NERDN03XN02A**
1-1/4"	1/2"	47.5 (1.87)	52.0 (2.05)	22.0 (0.87)	0.06 (0.14)	0.02 (1.44)	**NERDN04XN01A**
1-1/4"	3/4"	47.5 (1.87)	52.0 (2.05)	22.0 (0.87)	0.05 (0.12)	0.02 (1.19)	**NERDN04XN02A**
1-1/4"	1"	47.5 (1.87)	52.0 (2.05)	22.0 (0.87)	0.04 (0.08)	0.01 (0.80)	**NERDN04XN03A**
1-1/2"	1/2"	50.8 (2.00)	56.0 (2.20)	22.0 (0.87)	0.09 (0.19)	0.03 (1.92)	**NERDN05XN01A**
1-1/2"	3/4"	50.8 (2.00)	56.0 (2.20)	22.0 (0.87)	0.07 (0.16)	0.03 (1.67)	**NERDN05XN02A**
1-1/2"	1"	50.8 (2.00)	56.0 (2.20)	22.0 (0.87)	0.06 (0.13)	0.02 (1.29)	**NERDN05XN03A**
1-1/2"	1-1/4"	50.8 (2.00)	56.0 (2.20)	22.0 (0.87)	0.03 (0.06)	0.01 (0.65)	**NERDN05XN04A**

① *For nickel plated brass, replace the letter **A** with the letters **LC** in the 12th position; example: NERDM25XN01**LC**.*
*For 304 stainless steel, replace the letter **A** with the letters **I4** in the 12th position; example: NERDM25XN01**I4**.*
*For 316 stainless steel, replace the letter **A** with the letters **I6** in the 12th position; example: NERDM25X6N01**I6**.*
*For 316L stainless steel, replace the letter **A** with the letters **I6L** in the 12th position; example: NERDM25X6N01**I6L**.*
*For male and female metric threads, replace the letter **N** with the letter **M**, in the 9th position and replace the NPT thread size with the metric size in the 11th and 12th positions; example: NERDM25X**M16**A.*
*For male and female NPT threads, replace the letter **N** with the letter **B**, in the 9th position and replace the metric male thread size with the NPT thread size in the 6th and 7th positions; example: NERD**B03**XN01A.*
*For male metric thread and female BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NERDM25X**B**01A.*
*For male and female BSP threads, replace the letter **N** with the letter **B**, in the 5th and 9th positions and replace the metric male thread size with the BSP thread size in the 6th and 7th positions; example: NERD**B03**X**B**01A.*

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NERD Threaded Reducer

Explosionproof

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex e IIC Gb
IP66

Ø Thread		Dimensions mm (in)			Weight	Volume	Catalog
Male	Female	A	B	C	kg (lb)	dm^3 (in^3)	Number ①
2"	1/2"	73.0 (2.87)	80.0 (3.15)	22.0 (0.87)	0.18 (0.39)	0.07 (4.00)	**NERDN06XN01A**
2"	3/4"	73.0 (2.87)	80.0 (3.15)	22.0 (0.87)	0.17 (0.37)	0.06 (3.73)	**NERDN06XN02A**
2"	1"	73.0 (2.87)	80.0 (3.15)	22.0 (0.87)	0.15 (0.32)	0.05 (3.30)	**NERDN06XN03A**
2"	1-1/4"	73.0 (2.87)	80.0 (3.15)	22.0 (0.87)	0.12 (0.26)	0.04 (2.61)	**NERDN06XN04A**
2"	1-1/2"	73.0 (2.87)	80.0 (3.15)	22.0 (0.87)	0.09 (0.20)	0.03 (2.02)	**NERDN06XN05A**
2-1/2"	1/2"	82.6 (3.25)	92.0 (3.62)	29.0 (1.14)	0.33 (0.73)	0.12 (7.41)	**NERDN07XN01A**
2-1/2"	3/4"	82.6 (3.25)	92.0 (3.62)	29.0 (1.14)	0.31 (0.69)	0.12 (7.05)	**NERDN07XN02A**
2-1/2"	1"	82.6 (3.25)	92.0 (3.62)	29.0 (1.14)	0.29 (0.63)	0.11 (6.49)	**NERDN07XN03A**
2-1/2"	1-1/4"	82.6 (3.25)	92.0 (3.62)	29.0 (1.14)	0.25 (0.55)	0.09 (5.57)	**NERDN07XN04A**
2-1/2"	1-1/2"	82.6 (3.25)	92.0 (3.62)	29.0 (1.14)	0.21 (0.47)	0.08 (4.80)	**NERDN07XN05A**
2-1/2"	2"	82.6 (3.25)	92.0 (3.62)	29.0 (1.14)	0.13 (0.29)	0.05 (2.98)	**NERDN07XN06A**
3"	1/2"	95.2 (3.75)	106.0 (4.17)	35.0 (1.38)	0.60 (1.32)	0.22 (13.50)	**NERDN08XN01A**
3"	3/4"	95.2 (3.75)	106.0 (4.17)	35.0 (1.38)	0.58 (1.28)	0.21 (13.07)	**NERDN08XN02A**
3"	1"	95.2 (3.75)	106.0 (4.17)	35.0 (1.38)	0.55 (1.21)	0.20 (12.39)	**NERDN08XN03A**
3"	1-1/4"	95.2 (3.75)	106.0 (4.17)	35.0 (1.38)	0.50 (1.10)	0.18 (11.28)	**NERDN08XN04A**
3"	1-1/2"	95.2 (3.75)	106.0 (4.17)	35.0 (1.38)	0.46 (1.01)	0.17 (10.35)	**NERDN08XN05A**
3"	2"	95.2 (3.75)	106.0 (4.17)	35.0 (1.38)	0.36 (0.80)	0.13 (8.15)	**NERDN08XN06A**
3"	2-1/2"	95.2 (3.75)	106.0 (4.17)	35.0 (1.38)	0.24 (0.52)	0.09 (5.31)	**NERDN08XN07A**
3-1/2"	1/2"	110.0 (4.33)	122.0 (4.80)	35.0 (1.38)	0.80 (1.76)	0.29 (18.00)	**NERDN09XN01A**
3-1/2"	3/4"	110.0 (4.33)	122.0 (4.80)	35.0 (1.38)	0.78 (1.72)	0.29 (17.57)	**NERDN09XN02A**
3-1/2"	1"	110.0 (4.33)	122.0 (4.80)	35.0 (1.38)	0.75 (1.66)	0.28 (16.89)	**NERDN09XN03A**
3-1/2"	1-1/4"	110.0 (4.33)	122.0 (4.80)	35.0 (1.38)	0.70 (1.55)	0.26 (15.78)	**NERDN09XN04A**
3-1/2"	1-1/2"	110.0 (4.33)	122.0 (4.80)	35.0 (1.38)	0.66 (1.46)	0.24 (14.86)	**NERDN09XN05A**
3-1/2"	2"	110.0 (4.33)	122.0 (4.80)	35.0 (1.38)	0.56 (1.24)	0.21 (12.66)	**NERDN09XN06A**
3-1/2"	2-1/2"	110.0 (4.33)	122.0 (4.80)	35.0 (1.38)	0.44 (0.96)	0.16 (9.82)	**NERDN09XN07A**
3-1/2"	3"	110.0 (4.33)	122.0 (4.80)	35.0 (1.38)	0.25 (0.54)	0.09 (5.51)	**NERDN09XN08A**
4"	1/2"	123.0 (4.84)	138.0 (5.43)	39.0 (1.54)	1.13 (2.48)	0.41 (25.30)	**NERDN10XN01A**
4"	3/4"	123.0 (4.84)	138.0 (5.43)	39.0 (1.54)	1.10 (2.43)	0.41 (24.82)	**NERDN10XN02A**
4"	1"	123.0 (4.84)	138.0 (5.43)	39.0 (1.54)	1.07 (2.36)	0.39 (24.07)	**NERDN10XN03A**
4"	1-1/4"	123.0 (4.84)	138.0 (5.43)	39.0 (1.54)	1.02 (2.24)	0.37 (22.83)	**NERDN10XN04A**
4"	1-1/2"	123.0 (4.84)	138.0 (5.43)	39.0 (1.54)	0.97 (2.14)	0.36 (21.80)	**NERDN10XN05A**
4"	2"	123.0 (4.84)	138.0 (5.43)	39.0 (1.54)	0.86 (1.90)	0.32 (19.35)	**NERDN10XN06A**
4"	2-1/2"	123.0 (4.84)	138.0 (5.43)	39.0 (1.54)	0.72 (1.59)	0.27 (16.19)	**NERDN10XN07A**
4"	3"	123.0 (4.84)	138.0 (5.43)	39.0 (1.54)	0.51 (1.12)	0.19 (11.38)	**NERDN10XN08A**
4"	3-1/2"	123.0 (4.84)	138.0 (5.43)	39.0 (1.54)	0.31 (0.67)	0.11 (6.86)	**NERDN10XN09A**

① *For nickel plated brass, replace the letter **A** with the letters **LC** in the 12th position; example: NERDM25XN01**LC**.*
*For 304 stainless steel, replace the letter **A** with the letters **I4** in the 12th position; example: NERDM25XN01**I4**.*
*For 316 stainless steel, replace the letter **A** with the letters **I6** in the 12th position; example: NERDM25X6N01**I6**.*
*For 316L stainless steel, replace the letter **A** with the letters **I6L** in the 12th position; example: NERDM25X6N01**I6L**.*
*For male and female metric threads, replace the letter **N** with the letter **M**, in the 9th position and replace the NPT thread size with the metric size in the 11th and 12th positions; example: NERDM25X**M16**A.*
*For male and female NPT threads, replace the letter **N** with the letter **B**, in the 9th position and replace the metric male thread size with the NPT thread size in the 6th and 7th positions; example: NERD**B03**XN01A.*
*For male metric thread and female BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NERDM25X**B**01A.*
*For male and female BSP threads, replace the letter **N** with the letter **B**, in the 5th and 9th positions and replace the metric male thread size with the BSP thread size in the 6th and 7th positions; example: NERD**B03**X**B**01A.*

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Nutsteel® NEAR Threaded Adapter

Explosionproof

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex e II Gb
IP66

Applications

- For use at junctions between conduit and explosionproof, weatherproof, and increased safety enclosures, with different threads.

Features

- External (male) metric thread Ø M16 x 1.5 up to Ø M75 x 1.5.
- Internal (female) NPT thread Ø 1/2" to 3".

Standard Materials

- Aluminum

Options

- For nickel plated brass, replace the letter **A** with the letters **LC** in the 11th position; example: NEAR25M03N**LC**.
- For 304 stainless steel, replace the letter **A** with the letters **I4** in the 11th position; example: NEAR25M03N**I4**.
- For 316 stainless steel, replace the letter **A** with the letters **I6** in the 11th position; example: NEAR25M03N**I6**.
- For 316L stainless steel, replace the letter **A** with the letters **I6L** in the 11th position; example: NEAR25M03N**I6L**.
- For male and female metric threads, replace the letter **N** with the letter **M**, in the 10th position and replace the NPT thread size with the metric size in the 8th and 9th positions; example: NEAR25M**25M**A.
- For male and female NPT threads, replace the letter **M** with the letter **N**, in the 7th position and replace the metric male thread size with the NPT thread size in the 5th and 6th positions; example: NEAR**03N**03NA.
- For male metric thread and female BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NEAR25M03**B**A.



- For male and female BSP threads, replace the letter **M** with the letter **B**, in the 7th position and replace the metric male thread size with the BSP thread size in the 4th and 5th positions, replace the letter **N** with the letter **B**, in the 7th position; example: NEAR**03B**03**B**A.

NBR IEC Certifications and Compliances

- Ingress Protection: IP66
- INMETRO Certificate: TÜV 11.0385
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.

Catalog Numbering Guide

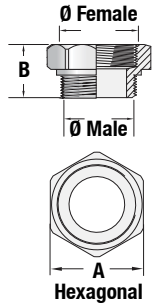
NEAR	25	M	03	N	A
NEAR Series: NBR IEC Certified	Male Thread Size: 01 - 1/2"BSP/NPT; 02 - 3/4"BSP/NPT; 03 - 1"BSP/NPT; 04 - 1 1/4"BSP/NPT; 05 - 1 1/2"BSP/NPT; 06 - 2"BSP/NPT; 07 - 2 1/2"BSP/NPT; 08 - 3"BSP/NPT; 16 - M16; 20 - M20; 25 - M25; 32 - M32; 40 - M40; 50 - M50; 63 - M63; 75 - M75	Male Thread Type: B - BSP; N - NPT; M - Metric	Female Thread Size: 01 - 1/2"BSP/NPT; 02 - 3/4"BSP/NPT; 03 - 1"BSP/NPT; 04 - 1 1/4"BSP/NPT; 05 - 1 1/2"BSP/NPT; 06 - 2"BSP/NPT; 07 - 2 1/2"BSP/NPT; 08 - 3"BSP/NPT; 16 - M16; 20 - M20; 25 - M25; 32 - M32; 40 - M40; 50 - M50; 63 - M63; 75 - M75	Female Thread Type: B - BSP; N - NPT; M - Metric	Materials: A - Aluminum; LC - Nickel Plated Brass; I4 - 304 Stainless Steel; I6 – 316 Stainless Steel; I6L – 316L Stainless Steel

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NEAR Threaded Adapter

Explosionproof

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex e II Gb
IP66



Ø Thread		Dimensions mm (in)		Weight	Volume	Catalog
Male	Female	A	B	kg (lb)	dm^3 (in^3)	Number ①
M16 x 1.5	1/2"	37.00 (1.46)	25.40 (1.00)	0.02 (0.04)	0.71 (43.51)	**NEAR16M01NA**
M20 x 1.5	1/2"	37.00 (1.46)	25.40 (1.00)	0.03 (0.06)	0.91 (55.29)	**NEAR20M01NA**
M20 x 1.5	3/4"	40.00 (1.57)	31.80 (1.25)	0.04 (0.09)	1.46 (89.09)	**NEAR20M02NA**
M25 x 1.5	3/4"	40.00 (1.57)	31.80 (1.25)	0.04 (0.08)	1.39 (84.82)	**NEAR25M02NA**
M25 x 1.5	1"	40.00 (1.57)	38.10 (1.50)	0.05 (0.10)	1.68 (102.52)	**NEAR25M03NA**
M32 x 1.5	1"	40.00 (1.57)	38.10 (1.50)	0.06 (0.12)	2.02 (123.27)	**NEAR32M03NA**
M32 x 1.5	1-1/4"	44.00 (1.73)	50.80 (2.00)	0.09 (0.21)	3.43 (209.31)	**NEAR32M04NA**
M32 x 1.5	1-1/2"	44.00 (1.73)	63.50 (2.50)	0.15 (0.32)	5.37 (327.70)	**NEAR32M05NA**
M40 x 1.5	1-1/4"	44.00 (1.73)	50.80 (2.00)	0.09 (0.20)	3.37 (205.65)	**NEAR40M04NA**
M40 x 1.5	1-1/2"	44.00 (1.73)	63.50 (2.50)	0.14 (0.31)	5.02 (306.34)	**NEAR40M05NA**
M50 x 1.5	1-1/2"	44.00 (1.73)	63.50 (2.50)	0.16 (0.36)	5.99 (365.53)	**NEAR50M05NA**
M50 x 1.5	2"	46.00 (1.81)	76.20 (3.00)	0.21 (0.46)	7.66 (467.44)	**NEAR50M06NA**
M63 x 1.5	2"	46.00 (1.81)	76.20 (3.00)	0.29 (0.63)	10.54 (643.19)	**NEAR63M06NA**
M75 x 1.5	2-1/2"	58.00 (2.28)	95.25 (3.75)	0.51 (1.11)	18.61 (1135.65)	**NEAR75M07NA**
M75 x 1.5	3"	58.00 (2.28)	101.60 (4.00)	0.49 (1.08)	18.07 (1102.70)	**NEAR75M08NA**

① *For nickel plated brass, replace the letter **A** with the letters **LC** in the 11th position; example: NEAR25M03N**LC**.*
*For 304 stainless steel, replace the letter **A** with the letters **I4** in the 11th position; example: NEAR25M03N**I4**.*
*For 316 stainless steel, replace the letter **A** with the letters **I6** in the 11th position; example: NEAR25M03N**I6**.*
*For 316L stainless steel, replace the letter **A** with the letters **I6L** in the 11th position; example: NEAR25M03N**I6L**.*
*For male and female metric threads, replace the letter **N** with the letter **M**, in the 10th position and replace the NPT thread size with the metric size in the 8th and 9th positions; example: NEAR25M**25M**A.*
*For male and female NPT threads, replace the letter **M** with the letter **N**, in the 7th position and replace the metric male thread size with the NPT thread size in the 5th and 6th positions; example: NEAR**03N**03NA.*
*For male metric thread and female BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NEAR25M03**B**A.*
*For male and female BSP threads, replace the letter **M** with the letter **B**, in the 7th position and replace the metric male thread size with the BSP thread size in the 4th and 5th positions, replace the letter **N** with the letter **B**, in the 7th position; example: NEAR**03B**03**B**A.*

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Nutsteel® NETF Flexible Conduit

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIB

Applications

- Used in explosionproof installations of motors, pumps, electrical panels and hard to reach places where curves are required, or where there is equipment vibration.

Features

- NPT threads standard Ø 1/2" to 2".
- Supplied with two permanent brass connectors, welded at the ends.
- The male/female tubes are supplied with a female union on one end.

Standard Materials

- Seamless corrugated copper tube, internally lined with synthetic fiber and reinforced externally with copper braiding



Options

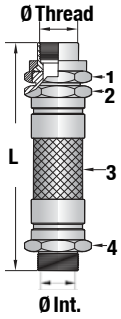
- For BSP threads, replace the letter **N** with the letter **B**, in the 7th position; example: NETF01**B**0300MF.

NBR IEC Certifications and Compliances

- INMETRO Certificate: CEPEL-EX-2000/11
- Ex Standards: ABNT NBR IEC 60079-0

Male - Female

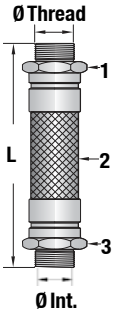
	Ø Thread	Ø Int. mm (in)	L mm (in)	Weight kg (lb)	Catalog Number
	1/2”	16.0 (0.63)	300 (11.81)	0.65 (1.43)	**NETF01N0300MF**
	1/2”	16.0 (0.63)	400 (15.75)	0.75 (1.65)	**NETF01N0400MF**
	1/2”	16.0 (0.63)	450 (17.72)	0.80 (1.76)	**NETF01N0450MF**
	1/2”	16.0 (0.63)	530 (20.87)	0.95 (2.09)	**NETF01N0530MF**
	1/2”	16.0 (0.63)	605 (23.82)	1.05 (2.31)	**NETF01N0605MF**
	1/2”	16.0 (0.63)	755 (29.72)	1.30 (2.87)	**NETF01N0755MF**
	1/2”	16.0 (0.63)	830 (32.68)	1.15 (2.54)	**NETF01N0830MF**
	1/2”	16.0 (0.63)	900 (35.43)	1.25 (2.76)	**NETF01N0900MF**
	1/2”	16.0 (0.63)	985 (38.78)	1.35 (2.98)	**NETF01N0985MF**
	1/2”	16.0 (0.63)	1040 (40.94)	1.45 (3.20)	**NETF01N1040MF**
	3/4”	21.0 (0.83)	310 (12.20)	0.90 (1.98)	**NETF02N0310MF**
	3/4”	21.0 (0.83)	360 (14.17)	1.05 (2.31)	**NETF02N0360MF**
	3/4”	21.0 (0.83)	410 (16.14)	1.10 (2.43)	**NETF02N0410MF**
	3/4”	21.0 (0.83)	465 (18.31)	1.25 (2.76)	**NETF02N0465MF**
	3/4”	21.0 (0.83)	540 (21.26)	1.35 (2.98)	**NETF02N0540MF**
	3/4”	21.0 (0.83)	615 (24.21)	1.50 (3.31)	**NETF02N0615MF**
	3/4”	21.0 (0.83)	690 (27.17)	1.70 (3.75)	**NETF02N0690MF**
	3/4”	21.0 (0.83)	770 (30.31)	1.80 (3.97)	**NETF02N0770MF**
	3/4”	21.0 (0.83)	845 (33.27)	1.90 (4.19)	**NETF02N0845MF**
	3/4”	21.0 (0.83)	920 (36.22)	2.10 (4.63)	**NETF02N0920MF**
	3/4”	21.0 (0.83)	995 (39.17)	2.20 (4.85)	**NETF02N0995MF**
	3/4”	21.0 (0.83)	1050 (41.34)	2.25 (4.96)	**NETF02N1050MF**



1. Female Union
2. Permanent male connector
3. Braided casing
4. Permanent male connector

Male - Male

	Ø Thread	Ø Int. mm (in)	L mm (in)	Weight kg (lb)	Catalog Number
	1/2”	16.0 (0.63)	335 (13.19)	0.50 (1.10)	**NETF01N0335MM**
	1/2”	16.0 (0.63)	385 (15.16)	0.57 (1.26)	**NETF01N0385MM**
	1/2”	16.0 (0.63)	440 (17.32)	0.65 (1.43)	**NETF01N0440MM**
	1/2”	16.0 (0.63)	515 (20.28)	0.70 (1.54)	**NETF01N0515MM**
	1/2”	16.0 (0.63)	590 (23.23)	0.80 (1.76)	**NETF01N0590MM**
	1/2”	16.0 (0.63)	750 (29.53)	1.00 (2.20)	**NETF01N0750MM**
	1/2”	16.0 (0.63)	820 (32.28)	1.10 (2.43)	**NETF01N0820MM**
	1/2”	16.0 (0.63)	895 (35.24)	1.15 (2.54)	**NETF01N0895MM**
	1/2”	16.0 (0.63)	970 (38.19)	1.25 (2.76)	**NETF01N0970MM**
	1/2”	16.0 (0.63)	1020 (40.16)	1.30 (2.87)	**NETF01N1020MM**
	3/4”	21.0 (0.83)	300 (11.81)	0.70 (1.54)	**NETF02N0300MM**
	3/4”	21.0 (0.83)	350 (13.78)	0.80 (1.76)	**NETF02N0350MM**
	3/4”	21.0 (0.83)	400 (15.75)	0.90 (1.98)	**NETF02N0400MM**
	3/4”	21.0 (0.83)	450 (17.72)	1.00 (2.20)	**NETF02N0450MM**
	3/4”	21.0 (0.83)	525 (20.67)	1.10 (2.43)	**NETF02N0525MM**
	3/4”	21.0 (0.83)	605 (23.82)	1.25 (2.76)	**NETF02N0605MM**
	3/4”	21.0 (0.83)	680 (26.77)	1.40 (3.09)	**NETF02N0680MM**
	3/4”	21.0 (0.83)	760 (29.92)	1.50 (3.31)	**NETF02N0760MM**
	3/4”	21.0 (0.83)	830 (32.68)	1.70 (3.75)	**NETF02N0830MM**
	3/4”	21.0 (0.83)	905 (35.63)	1.85 (4.08)	**NETF02N0905MM**
	3/4”	21.0 (0.83)	985 (38.78)	2.00 (4.41)	**NETF02N0985MM**
	3/4”	21.0 (0.83)	1040 (40.94)	2.10 (4.63)	**NETF02N1040MM**



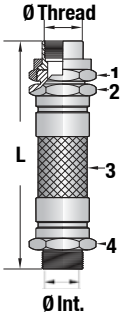
1. Permanent male connector
2. Braided casing
3. Permanent male connector

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NBR IEC:
Zone 1 and 2
Ex d IIB

Male - Female

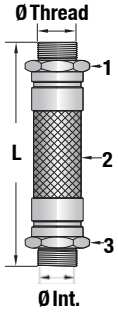
	Ø Thread	Ø Int. mm (in)	L mm (in)	Weight kg (lb)	Catalog Number ①
	1”	26.5 (1.04)	325 (12.80)	1.10 (2.43)	**NETF03N0325MF**
	1”	26.5 (1.04)	425 (16.73)	1.40 (3.09)	**NETF03N0425MF**
	1”	26.5 (1.04)	475 (18.70)	1.55 (3.42)	**NETF03N0475MF**
	1”	26.5 (1.04)	550 (21.65)	1.80 (3.97)	**NETF03N0550MF**
	1”	26.5 (1.04)	630 (24.80)	2.00 (4.41)	**NETF03N0630MF**
	1”	26.5 (1.04)	700 (27.56)	2.15 (4.74)	**NETF03N0700MF**
	1”	26.5 (1.04)	780 (30.71)	2.40 (5.29)	**NETF03N0780MF**
	1”	26.5 (1.04)	855 (33.66)	2.50 (5.51)	**NETF03N0855MF**
	1”	26.5 (1.04)	930 (36.61)	2.70 (5.95)	**NETF03N0930MF**
	1”	26.5 (1.04)	1000 (39.37)	2.80 (6.17)	**NETF03N1000MF**
	1”	26.5 (1.04)	1060 (41.73)	2.90 (6.39)	**NETF03N1060MF**
	1-1/2”	41.0 (1.61)	560 (22.05)	2.90 (6.39)	**NETF05N0560MF**
	1-1/2”	41.0 (1.61)	640 (25.20)	3.30 (7.28)	**NETF05N0640MF**
	1-1/2”	41.0 (1.61)	715 (28.15)	3.50 (7.72)	**NETF05N0715MF**
	1-1/2”	41.0 (1.61)	790 (31.10)	3.80 (8.38)	**NETF05N0790MF**
	1-1/2”	41.0 (1.61)	870 (34.25)	4.20 (9.26)	**NETF05N0870MF**
	1-1/2”	41.0 (1.61)	940 (37.01)	4.50 (9.92)	**NETF05N0940MF**
	1-1/2”	41.0 (1.61)	1020 (40.16)	4.60 (10.14)	**NETF05N1020MF**
	1-1/2”	41.0 (1.61)	1070 (42.13)	4.80 (10.58)	**NETF05N1070MF**
	2”	52.5 (2.07)	500 (19.69)	3.90 (8.60)	**NETF06N0500MF**
	2”	52.5 (2.07)	650 (25.59)	5.00 (11.02)	**NETF06N0650MF**
	2”	52.5 (2.07)	730 (28.74)	5.70 (12.57)	**NETF06N0730MF**
	2”	52.5 (2.07)	800 (31.50)	6.30 (13.89)	**NETF06N0800MF**
	2”	2.07) 52.5	880 (34.65)	6.90 (15.21)	**NETF06N0880MF**
	2”	52.5 (2.07)	950 (37.40)	7.10 (15.65)	**NETF06N0950MF**
	2”	52.5 (2.07)	1030 (40.55)	7.50 (16.53)	**NETF06N1030MF**
	2”	52.5 (2.07)	1090 (42.91)	7.90 (17.42)	**NETF06N1090MF**



1. **Female Union**
2. **Permanent male connector**
3. **Braided casing**
4. **Permanent male connector**

Male - Male

	Ø Thread	Ø Int. mm (in)	L mm (in)	Weight kg (lb)	Catalog Number ①
	1”	26.5 (1.04)	305 (12.01)	1.00 (2.20)	**NETF03N0305MM**
	1”	26.5 (1.04)	405 (15.94)	1.30 (2.87)	**NETF03N0405MM**
	1”	26.5 (1.04)	460 (18.11)	1.45 (3.20)	**NETF03N0460MM**
	1”	26.5 (1.04)	535 (21.06)	1.50 (3.31)	**NETF03N0535MM**
	1”	26.5 (1.04)	610 (24.02)	1.70 (3.75)	**NETF03N0610MM**
	1”	26.5 (1.04)	685 (26.97)	1.80 (3.97)	**NETF03N0685MM**
	1”	26.5 (1.04)	760 (29.92)	2.00 (4.41)	**NETF03N0760MM**
	1”	26.5 (1.04)	840 (33.07)	2.20 (4.85)	**NETF03N0840MM**
	1”	26.5 (1.04)	915 (36.02)	2.40 (5.29)	**NETF03N0915MM**
	1”	26.5 (1.04)	990 (38.98)	2.50 (5.51)	**NETF03N0990MM**
	1”	26.5 (1.04)	1050 (41.34)	2.60 (5.73)	**NETF03N1050MM**
	1-1/2”	41.0 (1.61)	545 (21.46)	2.40 (5.29)	**NETF05N0545MM**
	1-1/2”	41.0 (1.61)	620 (24.41)	2.70 (5.95)	**NETF05N0620MM**
	1-1/2”	41.0 (1.61)	695 (27.36)	3.00 (6.61)	**NETF05N0695MM**
	1-1/2”	41.0 (1.61)	770 (30.31)	3.30 (7.28)	**NETF05N0770MM**
	1-1/2”	41.0 (1.61)	850 (33.46)	3.60 (7.94)	**NETF05N0850MM**
	1-1/2”	41.0 (1.61)	925 (36.42)	3.90 (8.60)	**NETF05N0925MM**
	1-1/2”	41.0 (1.61)	1000 (39.37)	4.60 (10.14)	**NETF05N1000MM**
	1-1/2”	41.0 (1.61)	1060 (41.73)	4.90 (10.80)	**NETF05N1060MM**
	2”	52.5 (2.07)	550 (21.65)	3.60 (7.94)	**NETF06N0550MM**
	2”	52.5 (2.07)	630 (24.80)	4.10 (9.04)	**NETF06N0630MM**
	2”	52.5 (2.07)	700 (27.56)	4.60 (10.14)	**NETF06N0700MM**
	2”	52.5 (2.07)	780 (30.71)	5.10 (11.24)	**NETF06N0780MM**
	2”	52.5 (2.07)	860 (33.86)	5.60 (12.35)	**NETF06N0860MM**
	2”	52.5 (2.07)	935 (36.81)	6.30 (13.89)	**NETF06N0935MM**
	2”	52.5 (2.07)	1010 (39.76)	6.80 (14.99)	**NETF06N1010MM**
	2”	52.5 (2.07)	1060 (41.73)	7.10 (15.65)	**NETF06N1060MM**



1. **Permanent male connector**
2. **Braided casing**
3. **Permanent male connector**

① *For BSP threads, replace the letter **N** with the letter **B**, in the 7th position; example: NETF01**B**0300MF.*

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Nutsteel® NETI Flexible Conduit

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIB

Applications

- Used in explosionproof installations of motors, pumps, electrical panels and hard to reach places where curves are required, or where there is equipment vibration.

Features

- NPT threads standard Ø 1/2" to 1".
- Supplied with two permanent AISI 304 stainless steel connectors, welded at the ends.
- The male/female tubes are supplied with an AISI 304 stainless steel female union on one end.

Standard Materials

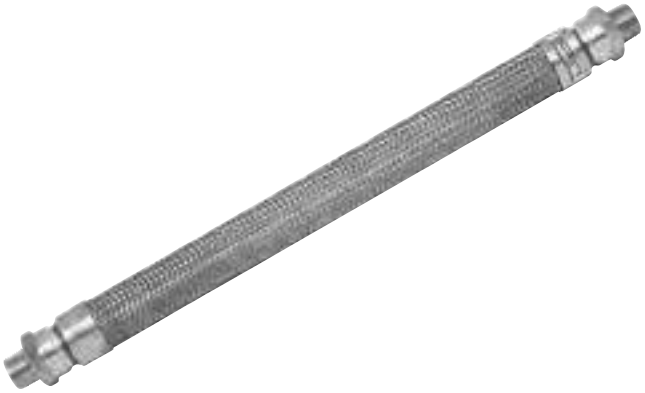
- Seamless corrugated class 300 stainless steel tube, internally lined with synthetic fiber and reinforced externally with AISI 304 stainless steel braiding

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 7th position; example: NETI01**B**0245MF.

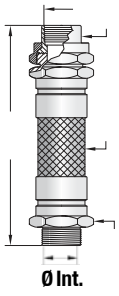
NBR IEC Certifications and Compliances

- INMETRO Certificate: CEPEL-EX- 1798109
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1



Male - Female

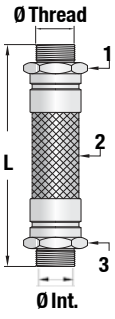
	Ø Thread	Ø Int. mm (in)	L mm (in)	Weight kg (lb)	Catalog Number
	1/2”	16.0 (0.63)	245 (9.65)	0.43 (0.95)	**NETI01N0245MF**
	1/2”	16.0 (0.63)	295 (11.61)	0.47 (1.04)	**NETI01N0295MF**
	1/2”	16.0 (0.63)	345 (13.58)	0.51 (1.12)	**NETI01N0345MF**
	1/2”	16.0 (0.63)	395 (15.55)	0.55 (1.21)	**NETI01N0395MF**
	1/2”	16.0 (0.63)	450 (17.72)	0.60 (1.32)	**NETI01N0450MF**
	1/2”	16.0 (0.63)	525 (20.67)	0.66 (1.46)	**NETI01N0525MF**
	1/2”	16.0 (0.63)	600 (23.62)	0.72 (1.59)	**NETI01N0600MF**
	1/2”	16.0 (0.63)	675 (26.57)	0.78 (1.72)	**NETI01N0675MF**
	1/2”	16.0 (0.63)	760 (29.92)	0.85 (1.87)	**NETI01N0760MF**
	1/2”	16.0 (0.63)	830 (32.68)	0.91 (2.01)	**NETI01N0830MF**
	1/2”	16.0 (0.63)	905 (35.63)	0.97 (2.14)	**NETI01N0905MF**
	1/2”	16.0 (0.63)	980 (38.58)	1.03 (2.27)	**NETI01N0980MF**
	1/2”	16.0 (0.63)	1030 (40.55)	1.07 (2.36)	**NETI01N1030MF**



1. Female Union
2. Braided casing
3. Permanent male connector

Male - Male

	Ø Thread	Ø Int. mm (in)	L mm (in)	Weight kg (lb)	Catalog Number
	1/2”	16.0 (0.63)	235 (9.25)	0.19 (0.42)	**NETI01N0235MM**
	1/2”	16.0 (0.63)	285 (11.22)	0.23 (0.51)	**NETI01N0285MM**
	1/2”	16.0 (0.63)	335 (13.19)	0.27 (0.60)	**NETI01N0335MM**
	1/2”	16.0 (0.63)	385 (15.16)	0.31 (0.68)	**NETI01N0385MM**
	1/2”	16.0 (0.63)	440 (17.32)	0.36 (0.79)	**NETI01N0440MM**
	1/2”	16.0 (0.63)	515 (20.28)	0.42 (0.93)	**NETI01N0515MM**
	1/2”	16.0 (0.63)	590 (23.23)	0.48 (1.06)	**NETI01N0590MM**
	1/2”	16.0 (0.63)	665 (26.18)	0.54 (1.19)	**NETI01N0665MM**
	1/2”	16.0 (0.63)	750 (29.53)	0.61 (1.34)	**NETI01N0750MM**
	1/2”	16.0 (0.63)	820 (32.28)	0.67 (1.48)	**NETI01N0820MM**
	1/2”	16.0 (0.63)	895 (35.24)	0.73 (1.61)	**NETI01N0895MM**
	1/2”	16.0 (0.63)	970 (38.19)	0.79 (1.74)	**NETI01N0970MM**
	1/2”	16.0 (0.63)	1020 (40.16)	0.83 (1.83)	**NETI01N1020MM**



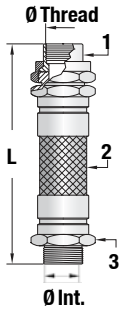
1. Permanent male connector
2. Braided casing
3. Permanent male connector

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NBR IEC:
Zone 1 and 2
Ex d IIB

Male - Female

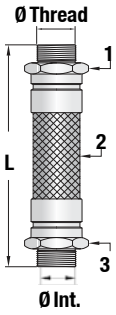
	Ø Thread	Ø Int. mm (in)	L mm (in)	Weight kg (lb)	Catalog Number ①
	3/4"	21.0 (0.83)	255 (10.04)	0.93 (2.05)	**NETI02N0255MF**
	3/4"	21.0 (0.83)	310 (12.20)	1.00 (2.20)	**NETI02N0310MF**
	3/4"	21.0 (0.83)	360 (14.17)	1.08 (2.38)	**NETI02N0360MF**
	3/4"	21.0 (0.83)	410 (16.14)	1.15 (2.54)	**NETI02N0410MF**
	3/4"	21.0 (0.83)	460 (18.11)	1.22 (2.69)	**NETI02N0460MF**
	3/4"	21.0 (0.83)	535 (21.06)	1.32 (2.91)	**NETI02N0535MF**
	3/4"	21.0 (0.83)	615 (24.21)	1.44 (3.17)	**NETI02N0615MF**
	3/4"	21.0 (0.83)	690 (27.17)	1.55 (3.42)	**NETI02N0690MF**
	3/4"	21.0 (0.83)	770 (30.31)	1.66 (3.66)	**NETI02N0770MF**
	3/4"	21.0 (0.83)	840 (33.07)	1.76 (3.88)	**NETI02N0840MF**
	3/4"	21.0 (0.83)	915 (36.02)	1.86 (4.10)	**NETI02N0915MF**
	3/4"	21.0 (0.83)	995 (39.17)	1.98 (4.37)	**NETI02N0995MF**
	3/4"	21.0 (0.83)	1050 (41.34)	2.05 (4.52)	**NETI02N1050MF**
	1"	26.5 (1.04)	315 (12.40)	1.02 (2.25)	**NETI03N0315MF**
	1"	26.5 (1.04)	360 (14.17)	1.08 (2.38)	**NETI03N0360MF**
	1"	26.5 (1.04)	415 (16.34)	1.15 (2.54)	**NETI03N0415MF**
	1"	26.5 (1.04)	470 (18.50)	1.22 (2.69)	**NETI03N0470MF**
	1"	26.5 (1.04)	545 (21.46)	1.32 (2.91)	**NETI03N0545MF**
	1"	26.5 (1.04)	620 (24.41)	1.42 (3.13)	**NETI03N0620MF**
	1"	26.5 (1.04)	695 (27.36)	1.52 (3.35)	**NETI03N0695MF**
	1"	26.5 (1.04)	770 (30.31)	0.62 (1.37)	**NETI03N0770MF**
	1"	26.5 (1.04)	850 (33.46)	1.72 (3.79)	**NETI03N0850MF**
	1"	26.5 (1.04)	925 (36.42)	1.82 (4.01)	**NETI03N0925MF**
	1"	26.5 (1.04)	1000 (39.37)	1.92 (4.23)	**NETI03N1000MF**
	1"	26.5 (1.04)	1060 (41.73)	2.02 (4.45)	**NETI03N1060MF**



1. Female Union
2. Braided casing
3. Permanent male connector

Male - Male

	Ø Thread	Ø Int. mm (in)	L mm (in)	Weight kg (lb)	Catalog Number ①
	3/4"	21.0 (0.83)	245 (9.65)	0.35 (0.77)	**NETI02N0245MM**
	3/4"	21.0 (0.83)	300 (11.81)	0.42 (0.93)	**NETI02N0300MM**
	3/4"	21.0 (0.83)	350 (13.78)	0.50 (1.10)	**NETI02N0350MM**
	3/4"	21.0 (0.83)	400 (15.75)	0.56 (1.23)	**NETI02N0400MM**
	3/4"	21.0 (0.83)	450 (17.72)	0.64 (1.41)	**NETI02N0450MM**
	3/4"	21.0 (0.83)	525 (20.67)	0.74 (1.63)	**NETI02N0525MM**
	3/4"	21.0 (0.83)	605 (23.82)	0.85 (1.87)	**NETI02N0605MM**
	3/4"	21.0 (0.83)	680 (26.77)	0.96 (2.12)	**NETI02N0680MM**
	3/4"	21.0 (0.83)	760 (29.92)	1.07 (2.36)	**NETI02N0760MM**
	3/4"	21.0 (0.83)	830 (32.68)	1.17 (2.58)	**NETI02N0830MM**
	3/4"	21.0 (0.83)	905 (35.63)	1.28 (2.82)	**NETI02N0905MM**
	3/4"	21.0 (0.83)	985 (38.78)	1.39 (3.06)	**NETI02N0985MM**
	3/4"	21.0 (0.83)	1040 (40.94)	1.47 (3.24)	**NETI02N1040MM**
	1"	26.5 (1.04)	305 (12.01)	0.40 (0.88)	**NETI03N0305MM**
	1"	26.5 (1.04)	355 (13.98)	0.46 (1.01)	**NETI03N0355MM**
	1"	26.5 (1.04)	405 (15.94)	0.53 (1.17)	**NETI03N0405MM**
	1"	26.5 (1.04)	460 (18.11)	0.60 (1.32)	**NETI03N0460MM**
	1"	26.5 (1.04)	535 (21.06)	0.70 (1.54)	**NETI03N0535MM**
	1"	26.5 (1.04)	610 (24.02)	0.80 (1.76)	**NETI03N0610MM**
	1"	26.5 (1.04)	685 (26.97)	0.90 (1.98)	**NETI03N0685MM**
	1"	26.5 (1.04)	760 (29.92)	1.00 (2.20)	**NETI03N0760MM**
	1"	26.5 (1.04)	840 (33.07)	1.10 (2.43)	**NETI03N0840MM**
	1"	26.5 (1.04)	915 (36.02)	1.20 (2.65)	**NETI03N0915MM**
	1"	26.5 (1.04)	990 (38.98)	1.30 (2.87)	**NETI03N0990MM**
	1"	26.5 (1.04)	1050 (41.34)	1.40 (3.09)	**NETI03N1050MM**



1. Permanent male connector
2. Braided casing
3. Permanent male connector

① *For BSP threads, replace the letter **N** with the letter **B**, in the 7th position; example: NETI01**B**0245MF.*

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Nutsteel® NENIC Short Nipple

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb



Applications

- Used at the junction of female to female connections.

Features

- NPT threads standard Ø 1/2" to 4".

Standard Materials

- Aluminum

Options

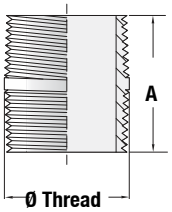
- For hot dipped SAE 1010/1020 steel, replace the letter **A** with the letter **G** in the 9th position; example: NENIC01N**G**.
- For electroplated SAE 1010/1020 steel, replace the letter **A** with the letter **E** in the 9th position; example: NENIC01N**E**.
- For AISI 304 stainless steel, letter **A** with the letter **I4** in the 9th position; example: NENIC01N**I4**.
- For AISI 316 stainless steel, letter **A** with the letter **I6** in the 9th position; example: NENIC01N**I6**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NENIC01**B**A.

NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0123
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Ø Thread	Dimensions mm (in) A	Weight kg (lb) Steel	Weight kg (lb) Aluminum	Catalog Number
1/2”	28 (1.10)	0.025 (0.055)	0.005 (0.000)	**NENIC01NA**
3/4”	34 (1.34)	0.035 (0.001)	0.015 (0.001)	**NENIC02NA**
1”	40 (1.57)	0.065 (0.003)	0.020 (0.001)	**NENIC03NA**
1-1/4”	40 (1.57)	0.085 (0.003)	0.030 (0.001)	**NENIC04NA**
1-1/2”	45 (1.77)	0.135 (0.005)	0.035 (0.001)	**NENIC05NA**
2”	50 (1.97)	0.190 (0.007)	0.055 (0.002)	**NENIC06NA**
2-1/2”	60 (2.36)	0.335 (0.013)	0.100 (0.004)	**NENIC07NA**
3”	66 (2.60)	0.450 (0.018)	0.165 (0.006)	**NENIC08NA**
3-1/2”	66 (2.60)	0.600 (0.024)	0.185 (0.007)	**NENIC09NA**
4”	66 (2.60)	0.750 (0.030)	0.240 (0.009)	**NENIC10NA**

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Nutsteel® NENIL Long Nipple

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb



Applications

- Used at the junction of female to female connections.

Features

- NPT threads standard Ø 1/2" to 4".

Standard Materials

- Aluminum

Options

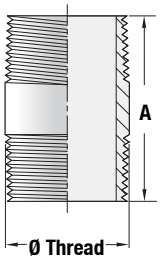
- For hot dipped SAE 1010/1020 steel, replace the letter **A** with the letter **G** in the 9th position; example: NENIL01N**G**.
- For electroplated SAE 1010/1020 steel, replace the letter **A** with the letter **E** in the 9th position:; example: NENIL01N**E**.
- For AISI 304 stainless steel, letter **A** with the letter **I4** in the 9th position; example: NENIL01N**I4**.
- For AISI 316 stainless steel, letter **A** with the letter **I6** in the 9th position; example: NENIL01N**I6**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NENIL01**B**A.

NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0123
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Ø Thread	Dimensions mm (in) A	Weight kg (in) Steel	Weight kg (in) Aluminum	Catalog Number
1/2”	38 (1.50)	0.040 (0.088)	0.015 (0.001)	**NENIL01NA**
3/4”	50 (1.97)	0.065 (0.003)	0.030 (0.001)	**NENIL02NA**
1”	50 (1.97)	0.095 (0.004)	0.035 (0.001)	**NENIL03NA**
1-1/4”	63 (2.48)	0.165 (0.006)	0.055 (0.002)	**NENIL04NA**
1-1/2”	63 (2.48)	0.210 (0.008)	0.065 (0.003)	**NENIL05NA**
2”	63 (2.48)	0.265 (0.010)	0.090 (0.004)	**NENIL06NA**
2-1/2”	76 (2.99)	0.430 (0.017)	0.165 (0.006)	**NENIL07NA**
3”	76 (2.99)	0.565 (0.022)	0.220 (0.009)	**NENIL08NA**
3-1/2”	76 (2.99)	0.770 (0.030)	0.260 (0.010)	**NENIL09NA**
4”	76 (2.99)	0.800 (0.031)	0.315 (0.012)	**NENIL10NA**

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Nutsteel® NELVP One Piece Conduit Coupling Sleeve

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb



Applications

- Provides a fast inexpensive method of joining two pieces of conduit in areas of close conduit spacing, tight clearance locations.

Features

- NPT threads standard Ø 1/2" to 4".

Standard Materials

- Electroplated cast iron

Options

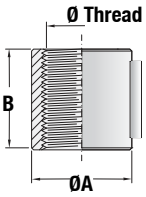
- For hot dipped cast iron, replace the letter **E** with the letter **G** in the 9th position; example: NELVP01**G**.
- For diecast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NELVP01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NELVP01**B**E.

NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0126
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



Ø Thread	Dimensions mm (in) A	Dimensions mm (in) B	Weight kg (lb) Iron	Weight kg (lb) Aluminum	Catalog Number
1/2”	30 (1.18)	35 (1.38)	0.07 (0.15)	0.05 (0.00)	**NELVP01NE**
3/4”	33 (1.30)	40 (1.57)	0.10 (0.00)	0.06 (0.00)	**NELVP02NE**
1”	41 (1.61)	44 (1.73)	0.15 (0.01)	0.07 (0.00)	**NELVP03NE**
1-1/4”	55 (2.17)	53 (2.09)	0.28 (0.01)	0.15 (0.01)	**NELVP04NE**
1-1/2”	57 (2.24)	56 (2.20)	0.43 (0.02)	0.16 (0.01)	**NELVP05NE**
2”	70 (2.76)	67 (2.64)	0.59 (0.02)	0.23 (0.01)	**NELVP06NE**
2-1/2”	70 (2.76)	70 (2.76)	0.99 (0.04)	0.31 (0.01)	**NELVP07NE**
3”	100 (3.94)	80 (3.15)	1.18 (0.05)	0.45 (0.02)	**NELVP08NE**
3-1/2”	115 (4.53)	86 (3.39)	1.47 (0.06)	0.74 (0.03)	**NELVP09NE**
4”	126 (4.96)	86 (3.39)	1.57 (0.06)	0.85 (0.03)	**NELVP10NE**

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Nutsteel® NETCA End Cap

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb



Applications

- Used to seal and protect conduit ends.

Features

- NPT threads standard Ø 1/2" to 4".

Standard Materials

- Electroplated cast iron

Options

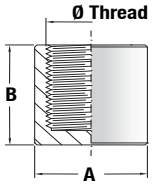
- For hot dipped cast iron, replace the letter **E** with the letter **G** in the 9th position; example: NETCA01N**G**.
- For diecast aluminum, replace the letter **E** with the letter **A** in the 9th position; example: NETCA01N**A**.
- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NETCA01N**B**.

NBR IEC Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.1766
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



	Dimensions mm (in)			Weight kg (lb)		
		B				
Ø Thread	A	Iron	Aluminum	Iron	Aluminum	Catalog Number
1/2”	28 (1.10)	23 (0.91)	23 (0.91)	0.07 (0.154)	0.03 (0.001)	**NETCA01NE**
3/4”	34 (1.34)	25 (0.98)	25 (0.98)	0.09 (0.004)	0.04 (0.002)	**NETCA02NE**
1”	41 (1.61)	25 (0.98)	25 (0.98)	0.13 (0.005)	0.06 (0.002)	**NETCA03NE**
1-1/4”	51 (2.01)	28 (1.10)	28 (1.10)	0.21 (0.008)	0.13 (0.005)	**NETCA04NE**
1-1/2”	60 (2.36)	30 (1.18)	30 (1.18)	0.29 (0.011)	0.14 (0.006)	**NETCA05NE**
2”	72 (2.83)	32 (1.26)	32 (1.26)	0.43 (0.017)	0.15 (0.006)	**NETCA06NE**
2-1/2”	85 (3.35)	40 (1.57)	53 (2.09)	0.64 (0.025)	0.35 (0.014)	**NETCA07NE**
3”	100 (3.94)	45 (1.77)	53 (2.09)	0.89 (0.035)	0.54 (0.021)	**NETCA08NE**
3-1/2”	125 (4.92)	53 (2.09)	53 (2.09)	1.30 (0.051)	0.75 (0.030)	**NETCA09NE**
4”	125 (4.92)	50 (1.97)	53 (2.09)	1.40 (0.055)	0.73 (0.029)	**NETCA10NE**

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Applications

- Used for the passage of wires and cables in explosionproof installations.

Features

- NPT or BSP threads Ø 1/2" to 4".
- All conduit pieces are marked along the bar with the NBR and nominal size; example: NBR 5597 TN15 (for Ø 1/2" NPT conduit).
- Available in 3 meter (9.84 foot) long bars.
- Complete with a coupling on one end and a thread protector on the other.

Standard Materials

- Seamed carbon steel pipe (internal weld seam has been removed)

Standard Finishes

- Hot dip zinc galvanized

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



	Ø Thread	Ø External mm (in) NPT	Ø External mm (in) BSP	Wall Thickness mm (in)	Weight kg (lb) (3 m bar)	Catalog Number NPT	Catalog Number BSP
Ø Thread Coupling 3000 mm (9.84 ft) Thread Protector	1/2”-TN15	21.3 (0.84)	21.3 (0.84)	2.25 (0.09)	3.42 (7.54)	**NEELP01NG**	**NEELP01BG**
	3/4”-TN20	26.7 (1.05)	26.7 (1.05)	2.25 (0.09)	4.40 (9.70)	**NEELP02NG**	**NEELP02BG**
	1”-TN25	33.4 (1.31)	33.4 (1.31)	2.65 (0.10)	6.46 (14.24)	**NEELP03NG**	**NEELP03BG**
	1-1/4”-TN32	42.2 (1.66)	42.2 (1.66)	2.65 (0.10)	9.48 (20.90)	**NEELP04NG**	**NEELP04BG**
	1-1/2”-TN40	48.0 (1.89)	48.0 (1.89)	3.00 (0.12)	10.90 (24.03)	**NEELP05NG**	**NEELP05BG**
	2”-TN50	59.9 (2.36)	59.9 (2.36)	3.00 (0.12)	15.25 (33.62)	**NEELP06NG**	**NEELP06BG**
	2-1/2”-TN65	73.0 (2.87)	73.0 (2.87)	3.35 (0.13)	19.90 (43.87)	**NEELP07NG**	**NEELP07BG**
	3”-TN80	88.2 (3.47)	88.2 (3.47)	3.35 (0.13)	25.54 (56.31)	**NEELP08NG**	**NEELP08BG**
	4”-TN100	114.3 (4.50)	114.3 (4.50)	3.75 (0.15)	37.10 (81.79)	**NEELP10NG**	**NEELP10BG**

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Nutsteel® NESMF Sealing Fittings

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC

Applications

- Used in explosionproof installations to prevent the propagation of an explosion through the piping.

Features

- NPT threads standard Ø 1/2" to 4".
- Female to female threads.
- For use in horizontal and vertical positions.
- The sealing fitting must be properly sealed using sealing compound.

Standard Materials

- Copperfree diecast aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NESHF01**B**.

NBR IEC Certifications and Compliances

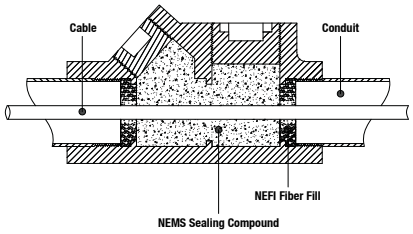
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.1163
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

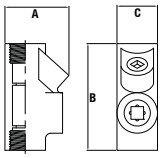
Related Products

- NEMS sealing compound
- NEFI fiber fill



Illustrated Features





Ø Thread	Dimensions mm (in) A	B	C	Weight kg (lb)	Catalog Number
1/2”	54.0 (2.13)	90.0 (3.54)	33.0 (1.30)	0.45 (0.99)	**NESMF01N**
3/4”	60.0 (2.36)	100.0 (3.94)	38.0 (1.50)	0.42 (0.93)	**NESMF02N**
1”	70.0 (2.76)	120.0 (4.72)	45.0 (1.77)	0.49 (1.08)	**NESMF03N**
1-1/4”	79.0 (3.11)	128.0 (5.04)	56.0 (2.20)	0.77 (1.70)	**NESMF04N**
1-1/2”	90.0 (3.54)	140.0 (5.51)	62.0 (2.44)	0.75 (1.65)	**NESMF05N**
2”	101.0 (3.98)	160.0 (6.30)	71.0 (2.80)	1.31 (2.89)	**NESMF06N**
2-1/2”	115.0 (4.53)	195.0 (7.68)	89.0 (3.50)	1.53 (3.37)	**NESMF07N**
3”	135.5 (5.31)	210.0 (8.27)	109.0 (4.29)	2.38 (5.25)	**NESMF08N**
3-1/2"	161.0 (6.34)	240.0 (9.45)	135.0 (5.31)	3.59 (7.91)	**NESMF09N**
4"	161.0 (6.34)	240.0 (9.45)	155.0 (6.10)	3.59 (7.91)	**NESMF10N**

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Nutsteel® NESMM Sealing Fittings

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC

Applications

- Used in explosionproof installations to prevent the propagation of an explosion through the piping.

Features

- NPT threads standard Ø 1/2" to 4".
- Male to female threads.
- For use in horizontal and vertical positions.
- The sealing fitting must be properly sealed using sealing compound.

Standard Materials

- Copperfree diecast aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure.

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NESHM01**B**.

NBR IEC Certifications and Compliances

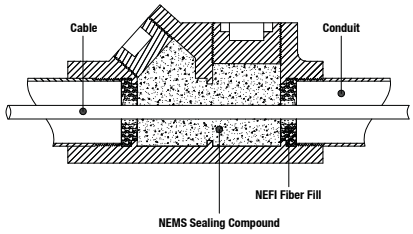
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.1163
- INMETRO Certificate Nipple: TÜV 11.0123
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

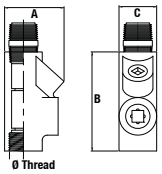
Related Products

- NEMS sealing compound
- NEFI fiber fill



Illustrated Features





Ø Thread	Dimensions mm (in) A	B	C	Weight kg (lb)	Catalog Number
1/2”	54.0 (2.13)	90.0 (3.54)	33.0 (1.30)	0.47 (1.07)	**NESMM01N**
3/4”	60.0 (2.36)	100.0 (3.94)	38.0 (1.50)	0.45 (0.99)	**NESMM02N**
1”	70.0 (2.76)	120.0 (4.72)	45.0 (1.77)	0.65 (1.43)	**NESMM03N**
1-1/4”	79.0 (3.11)	128.0 (5.04)	56.0 (2.20)	0.85 (1.87)	**NESMM04N**
1-1/2”	90.0 (3.54)	140.0 (5.51)	62.0 (2.44)	0.89 (1.96)	**NESMM05N**
2”	101.0 (3.98)	160.0 (6.30)	71.0 (2.80)	1.50 (3.31)	**NESMM06N**
2-1/2”	115.0 (4.53)	195.0 (7.68)	89.0 (3.50)	1.87 (4.12)	**NESMM07N**
3”	135.5 (5.31)	210.0 (8.27)	109.0 (4.29)	2.38 (5.25)	**NESMM08N**
3-1/2"	161.0 (6.34)	240.0 (9.45)	135.0 (5.31)	3.59 (7.91)	**NESMM09N**
4"	161.0 (6.34)	240.0 (9.45)	155.0 (6.10)	3.59 (7.91)	**NESMM10N**

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Nutsteel® NEMS Sealing Compound and NEFI Fiber Fill

Explosionproof

NBR IEC:
Zone 1 and 2
Groups IIA, IIB and IIC

Sealing Compound

- Used in the sealing chamber of sealing fittings to prevent the propagation of explosion.
- Water soluble powder.
- Provided in plastic container.

Fiber Fill

- Used in conjunction with Nutsteel NEMS sealing compound to prevent the drainage of the sealing compound during installation.
- Calculate the amount of compound and fiber sealing required in each unit sealer.





NBR IECEx Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.1164
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1

Description	Package kg (oz)	Catalog Number
Sealing Compound	0.5 (17.6)	**NEMS0500**
Sealing Compound	1.0 (35.3)	**NEMS1000**
Fiber Fill	0.1 (3.53)	**NEFI0100**
Fiber Fill	0.2 (7.05)	**NEFI0200**

Determining the Quantity of Sealing Compound and Fiber for Sealing the Conduit Seal Fitting

Before beginning the sealing, the user should consult the instruction manual that came with the sealing compound and the fiber. The table below is intended to assist users in determining the correct quantity thereof, for the proper installation of the seal fittings.

Sealing compound: Package of 0.5 kg (17.6 oz) and 1.0 kg (35.3 oz).
Fiber: Package of 0.1 Kg (3.53 oz) and 0.2 Kg (7.05 oz).

Sealing Fitting Catalog Number		Ø Thread	Quantity of Sealing Compound and Fiber g (oz)			
			Vertical	Horizontal	Vertical	Horizontal
NESMF01N	NESMM01N	1/2”	20 (0.71)	17 (0.60)	1 (0.035)	2 (0.070)
NESMF02N	NESMM02N	3/4”	40 (1.41)	34 (1.20)	2 (0.070)	4 (0.141)
NESMF03N	NESMM03N	1”	76 (2.68)	64 (2.26)	4 (0.141)	8 (0.282)
NESMF04N	NESMM04N	1-1/4”	160 (5.64)	120 (4.23)	8 (0.282)	16 (0.56)
NESMF05N	NESMM05N	1-1/2”	210 (7.41)	170 (6.00)	15 (0.53)	30 (1.06)
NESMF06N	NESMM06N	2”	400 (14.11)	330 (11.64)	30 (1.06)	60 (2.12)
NESMF07N	NESMM07N	2-1/2”	700 (24.69)	480 (16.93)	45 (1.59)	90 (3.17)
NESMF08N	NESMM08N	3”	1140 (40.21)	950 (33.51)	50 (1.76)	120 (4.23)
NESMF09N	NESMM09N	3-1/2"	1500 (52.91)	1600 (56.44)	80 (2.82)	180 (6.35)
NESMF10N	NESMM10N	4"	2000 (70.55)	2400 (84.66)	100 (3.53)	270 (9.52)

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Applications

- The anti-oxide compound Gapsteel® was specifically developed to be applied to machined parts, and flat or threaded explosionproof equipment (Ex d).
- The anti-oxide compound Gapsteel, plays a key role when used in joints (gaps) of aluminum alloy or iron equipment.
- Used to relieve the explosion pressure by cooling it, without causing ignition of the external atmosphere.

Features

- Due to its chemical composition, Gapsteel offers the following advantages:
  - — Prevents corrosion of metals, especially aluminum, prolonging equipment life.
  - — Facilitates removal of the covers of explosionproof enclosures.
  - — It is a compound semiconductor that allows for the continuity of the ground between the joints of an enclosure, without isolating the separate pieces.
  - — Improves the degree of protection in equipment by obstructing the passage of liquids or dust.
  - — Prevents corrosion, oxidation and cantilever smooth and threaded joints.

To Use

- Apply the product in small quantities in smooth and threaded joints of equipment during assembly and reapply whenever maintenance is performed.



Package g (oz)	Catalog Number
500 (17.64)	**NTGST0500**

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Applications

- The anti-oxide compound Threadsteel® was specifically developed to be applied to the threads of explosionproof and weatherproof metal connections.
- The compound Threadsteel plays a key role in lubricating the threads of equipment made of aluminum or iron.

Features

- Due to its chemical composition, Threadsteel offers the following advantages:
  - — Avoid the cantilever of the threads, protecting metals against corrosion and oxidation.
  - — Allows for easy disassembly of parts and threaded connections.
  - — Resistant to salt water and steam, prolonging the lifetime of connections.
  - — Improves the degree of protection in equipment by obstructing the passage of liquids or dust.
  - — Supports high temperatures without melting.

To Use

- Apply small quantities the product on the threads of the equipment and connections during assembly and reapply whenever maintenance is performed.



Package g (oz)	Catalog Number
250 (8.81)	**NTTST0250**

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Nutsteel® NTDRE Drain and Breather

Weatherproof



Applications

- To provide a means for the prevention and/or release of condensation when properly installed in the appropriate loaction.

Features

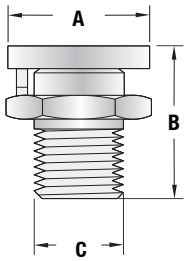
- NPT and BSP threads standard Ø 1/2".

Standard Materials

- Electroplated cast iron

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.

	Dimensions mm (in)			Weight	Catalog Number	
	A	B	C	kg (lbs)	NPT	BSP
	Ø 26 (1.02)	35 (1.38)	12.7 (0.5)	0.085 (0.187)	**NTDRE01NE**	**NTDRE01BE**

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Nutsteel® NTENL Service Entrance Cap



Applications

- Used for service drop connections with threaded or unthreaded conduit.
- Can be used for the passage of wires and cables in installations where slight curves are required.

Features

- Supplied with insulating bushing, fixed with screws, by means of BSP threads or set screw.
- BSP threads standard: Ø 1/2” to Ø 4”.
- Set screw: Ø 23 mm (0.91 in) to Ø 115 mm (4.52 in).

Standard Materials

- Cap: diecast aluminum
- Bushing: phenolite

Standard Finishes

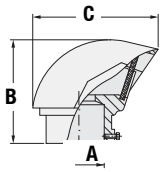
- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

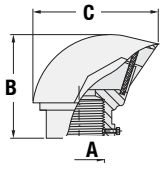
Options

- For NPT threads, replace the letter **B** with the letter **N** in the 8th position, example: NTENL01**N**.

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.





	Dimensions mm (in)			Weight	Catalog Number	
	A	B	C	kg (lbs)	Threaded BSP	Set Screw
	1/2”	90 (3.54)	100 (3.94)	0.280 (0.62)	**NTENL01B**	**NTENL01L**
	3/4”	90 (3.54)	100 (3.94)	0.270 (0.60)	**NTENL02B**	**NTENL02L**
	1”	90 (3.54)	100 (3.94)	0.260 (0.57)	**NTENL03B**	**NTENL03L**
	1-1/4”	110 (4.33)	140 (5.51)	0.505 (1.11)	**NTENL04B**	**NTENL04L**
	1-1/2”	110 (4.33)	140 (5.51)	0.490 (1.08)	**NTENL05B**	**NTENL05L**
	2”	115 (4.53)	140 (5.51)	0.420 (0.93)	**NTENL06B**	**NTENL06L**
	2-1/2”	225 (8.86)	258 (10.16)	2195 (4839.15)	**NTENL07B**	**NTENL07L**
	3”	225 (8.86)	258 (10.16)	2060 (4541.52)	**NTENL08B**	**NTENL08L**
	3-1/2”	225 (8.86)	258 (10.16)	2170 (4784.03)	**NTENL09B**	**NTENL09L**
	4”	225 (8.86)	258 (10.16)	2435 (5368.26)	**NTENL10B**	**NTENL10L**

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CONTROLS

Unsurpassed safety meets incredible simplicity. Easy to install Nutsteel control stations are built to safely and efficiently operate your equipment. They will help you keep productivity high, downtime low.







CONTROLS

Controls

Description	Page	NEC	CEC	ATEX / IEC	NBR IEC
ATEX/IECEx/NBR IEC Increased Safety Ex e Control Stations and Switches					
Unicode® 2 Series Control Stations and Switches	90			X	X
Unicode® 2 Series Polyamide Control Stations	106			X	X
Unicode® 2 Series Customized Control Stations	116			X	X
Unicode® 2 Series Pre–Drilled Control Stations	128			X	X
Unicode® 2 Series Accessories	137			X	X
ATX FU40 Series ATEX Fuse Carrier	162			X	X
ATEX/IECEx/NBR IEC Flameproof Ex d Zone 1 Rated Control Stations and Switches					
ATX D Series Aluminum Control Stations	163			X	X
NBR IEC Zone Rated Hazardous Location Control Stations and Switches					
Nutsteel NECCS Series Pre–Drilled Aluminum Control Stations	167				X
Nutsteel NEBC Push Button Emergency Stop Control Station	171				X
Nutsteel NETPE, NETPL, NECM Modular Control Stations	180				X
Nutsteel NECS Series Ex d Control Operators	185				X
Nutsteel NEBVO Voltmeter and NEBAM Ammeter	189				X
Nutsteel NEFC Electric Photocontrol	191				X
NBR IEC Weatherproof Control Stations and Switches					
Nutsteel NTCCS Enclosure for Controls and Indicator Lights	192				X
Nutsteel NTIN Control Station	195				X
Nutsteel NTVO Voltmeter and NTAM Ammeter	197				X
ATEX/IECEx/NBR IEC Increased Safety Ex e/Flameproof Ex d Zone 1 Rated Call Points Stations and Audio Signaling Devices					
ATX SWE Series 16 and 20 Amp	198			X	X
ATX SWE Series 40, 63 and 160 Amp	201			X	X
Nutsteel NESET Electronic Siren	205				X
NBR IEC Class/Zone Rated Motor Starters					
Nutsteel NEPPS Motor Starters	208				X
Nutsteel NEPPM Motor Starters	210				X
NEC/CEC/NBR IEC Indicators and Grounding Devices					
Nutsteel NEBLD Digital Ground Controller	214				X
SD Series Static Discharge Grounding Reelites	217	X	X		X
ATEX/IECEx Increased Safety Ex e Zone 1 Rated Control Transformers					
ATX TRE Series Ex e Transformers	220			X	X







Stock, Custon, Pre–Drilled Unicode® 2 **Polyester Unicode® 2**







FU40 **D Series** **NECCS**







NEBC **NETPE/NETPL/NECM** **NECS**







NEBVO/NEBAM **NEFC** **NTCCS**







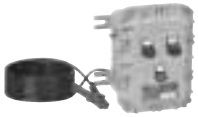
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NESET **NEPPS** **NEPPM**







NEBLD **SD** **TRE**

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Unicode® 2 Series Control Stations and Switches

Increased Safety

Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Applications

- Local control stations and motor control stations for use in hazardous areas covering the broadest possible range of applications.
- Control of equipment at:
  - — Power plants
  - — Chemical and petrochemical plants
  - — Petroleum refineries
  - — Reverse osmosis plants
  - — Pulp and paper processing plants
  - — Various industrial applications
- Push buttons and selector switches are used in conjunction with contactors or magnetic starters for remote control of motors in hazardous locations. They provide circuit control and/or selection.
- Pilot lights provide visual assurance that an electrical function is being performed at a remote or hazardous location.
- For use in washdown areas.

Features

- Employs Ex de method of protection which eliminates the need for external seals.
- Operators include push buttons, illuminated push buttons, selector switches, control and load break switches and LED pilot lights.
- Pilot light employs high intensity single LED with lifetime of 100,000 hours that can be used at:
  - — 12 Vac to 254 Vac 50/60 Hz
  - — 12 Vdc to 60 Vdc
- Up to 3 contact blocks per actuator can be used.
- Contact block technical data:
  - — IEC rated operating voltage (Ue): 500 Vac – 110 Vdc
  - — IEC switching capacity:
    - – AC12: 16 Amp/400 Vac
    - – AC14: 10 Amp/400 Vac
    - – AC15: 6 Amp/500 Vac
    - – DC13: 2 Amp/24 Vdc and 1 Amp/110 Vdc
  - — NEMA switching capacity: A600: 10 Amp/600 Vac
- Selector switch technical data:
  - — IEC rated operating voltage: 690 Vac
  - — IEC rated operating current: maximum 16 Amp
  - — IEC switching capacity:
    - – AC1: 16 Amp/690 Vac
    - – AC15: 16 Amp/415 Vac
    - – AC3: 8 Amp/500 Vac
    - – AC3: 4 Amp/690 Vac
    - – AC3: 16 Amp/690 Vac
    - – DC1: 10 Amp/24 Vdc
    - – DC1: 6 Amp/60 Vdc
    - – DC1: 6 Amp/110 Vdc (2 contacts wired in series)
    - – DC1: 6 Amp/220 Vdc (3 contacts in series)
  - — NEMA switching capacity: A600: 10 Amp/600 Vac
- Enclosures are rated for IP66 with firmly secured gasket.
- Operators and contact blocks are spaced so as to have easy and ample space for wiring.
- Wide selection of termination methods available.
- Choice of DIN rail mounted high performance contact block suitable for low intensity (less than 5mA).
- TS35 rail mounted components held securely in place during operation and easily removed for service.
- Brass Inserts are provided for TS35 DIN rails or mounting plate to be installed inside the enclosure.



U22W2 PGA5
Fiberglass Reinforced Polyester



U62W2 PRA5A9
316 Stainless Steel



U83W2 PRA5A9
Aluminum

- Captive, corrosion resistant stainless steel cover screws.

Standard Materials

- Body and cover: choice of fiberglass reinforced polyester (FRP) with black finish, 316L stainless steel with natural finish or aluminum with gray epoxy powder coating
- Cover screws for 316L stainless steel or aluminum body: 304 stainless steel
- Cover screws for fiberglass reinforced polyester body: 316 stainless steel

Accessories

- Key for changing actuator blocks.
- Guard for mushroom head actuator.
- Padlockable guard.
- M5 and M6 earth stud.
- Combination drain and breather available in brass, polyamide and stainless steel.

Options

- Nameplates: stainless steel or Lamacoid with different color combinations.
- Padlocking facility at left, center, right or any position on selector switches.
- Padlocking facility for momentary and maintained push buttons.
- Special contact arrangements available, see *Unicode 2 Series Customized Control Stations*.

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Unicode® 2 Series Control Stations and Switches

Increased Safety

Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

ATEX/IECEx Certification and Compliances

✓ Fiberglass Reinforced Polyester (FRP)
- — Certification Type CSPe
- — Gas: Zone 1 and 2
  - – T Rating: T6
- — Dust: Zone 21 and 22
  - – Surface Temperature: T75 °C (T167 °F)
- — Ambient Temperature: -55 °C to +70 °C (-67 °F to +158 °F)
- — CE Declaration of Conformity: 52084
- — ATEX Certificate: LCIE 00 ATEX 3032X
- — IEC Certificate: IECEx LCI 09.0016X
- — Impact Resistance (shock): IK10

✓ Stainless Steel
- — Certification Type JBe
- — Gas: Zone 1 and 2
  - – T Rating: T5 to T6
- — Dust: Zone 21 and 22
  - – Surface Temperature: T80 °C to T95 °C (T176 °F to T203 °F)
- — Ambient Temperature: -50 °C to +70 °C (-58 °F to +158 °F)
- — CE Declaration of Conformity: 50232
- — ATEX Certificate: LCIE 02 ATEX 6118X
- — IECEx Certificate: LCI 11.0008X
- — Impact Resistance (shock): IK10

✓ Aluminum
- — Certification Type PCe
- — Gas: Zone 1 and 2
  - – T Rating: T6
- — Dust: Zone 21 and 22
  - – Surface Temperature: T75 °C (T167 °F)
- — CE Declaration of Conformity: 50221
- — ATEX Certificate: LCIE 02 ATEX 6047
- — IEC Certificate: LCIE Ex 00.017
- — Impact Resistance (shock): IK10

- Gas: Zone 1 and 2
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
  - — ATEX/IEC Protection: Ex de IIC/Ex demb IIC
- Dust: Zone 21 and 22
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
  - — ATEX/IEC Protection: Ex tD A21
- Other Certifications: GOST R
- Ingress Protection (solid and liquid): IP66
- Ex standards :EN/IEC 60079-0; 60079-1; 60079-7; 60079-18; 61241-0; 61241-1
- Product standards: EN/IEC 60947-1; 60947-5
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

✓ Fiberglass Reinforced Polyester (FRP)
- — Certification Type CSPe
- — Gas: Zone 1 and 2
  - – IEC Marking: Ex e II Gb/Ex de IIC Gb/Ex deia IIC Gb/Ex demb IIC Gb
  - – T Rating: T6
- — Dust: Zone 21 and 22
  - – IEC Marking: Ex tb IIIC Db
- — Ambient Temperature: -55 °C to +60 °C (-67 °F to +140 °F)
- — INMETRO Certificate: BVC 11.0637-X
- — Ingress Protection: IP66
- — Impact Resistance (shock): IK10
- — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-31

✓ Stainless Steel
- — Certification Type JBe
- — Gas: Zone 1 and 2
  - – IEC Marking: Ex e II/Ex de II/Ex eia ou eib IIC Gb/Ex tb IIIC
  - – T Rating: T5/T6
- —Ambient Temperature: -55 °C to +60 °C (-67 °F to +140 °F)
- —INMETRO Certificate: BVC 11.0418-X
- —Ingress Protection: IP66
- —Impact Resistance (shock): IK10
- —Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-31

- INMETRO Ordinance: 179
- Other Standards: ABNT NBR IEC 60529 (IP)

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Unicode® 2 Series Control Stations and Switches

Increased Safety

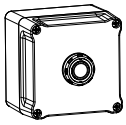
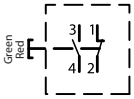
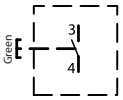
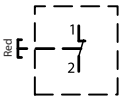
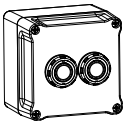
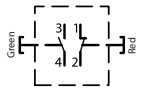
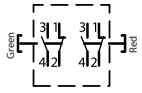
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Size 1 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

	Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Momentary Push Button								
	Green insert 'I' + red insert 'O' with 1NO + 1NC momentary contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2A3**	**NU21W2A3**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4A3**	**NU21W4A3**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3A3**	**NU21Z3A3**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3A3**	**NU21X3A3**
	1x green push button 'I' with 1NO momentary contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2A5**	**NU21W2A5**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4A5**	**NU21W4A5**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3A5**	**NU21Z3A5**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3A5**	**NU21X3A5**
	1x red push button 'O' with 1NC momentary contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2A9**	**NU21W2A9**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4A9**	**NU21W4A9**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3A9**	**NU21Z3A9**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3A9**	**NU21X3A9**
Twin Momentary Push Buttons ④								
	1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts		Bottom	2 x M20	1.1 (2.43)	4.0 (244.1)	**U21W2A5A9**	**NU21W2A5A9**
				2 x M25	1.1 (2.43)	4.0 (244.1)	**U21W4A5A9**	**NU21W4A5A9**
				1 x 3/4"	1.1 (2.43)	4.0 (244.1)	**U21Z3A5A9**	**NU21Z3A5A9**
			Feed-Thru	2 x 3/4"	1.1 (2.43)	4.0 (244.1)	**U21X3A5A9**	**NU21X3A5A9**
	1x green push button 'I' with 1NO + 1NC contact 1x red push button 'O' with 1NO + 1NC contact Momentary contacts		Bottom	2 x M20	1.1 (2.43)	4.0 (244.1)	**U21W2A3A3**	**NU21W2A3A3**
				2 x M25	1.1 (2.43)	4.0 (244.1)	**U21W4A3A3**	**NU21W4A3A3**
				1 x 3/4"	1.1 (2.43)	4.0 (244.1)	**U21Z3A3A3**	**NU21Z3A3A3**
			Feed-Thru	2 x 3/4"	1.1 (2.43)	4.0 (244.1)	**U21X3A3A3**	**NU21X3A3A3**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ Vertically mounted devices in stainless steel model.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Control Stations and Switches

Increased Safety

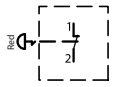
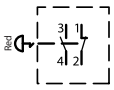
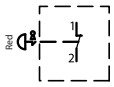
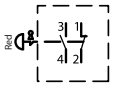
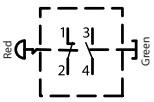
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Size 1 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Emergency Stop							
Red mushroom head push-pull 1NC maintained contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2D9**	**NU21W2D9**
			2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4D9**	**NU21W4D9**
			1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3D9**	**NU21Z3D9**
		Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3D9**	**NU21X3D9**
Red mushroom head push-pull 1NO + 1NC maintained contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2D3**	**NU21W2D3**
			2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4D3**	**NU21W4D3**
			1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3D3**	**NU21Z3D3**
		Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3D3**	**NU21X3D3**
Red mushroom head key release 1NC maintained contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2C9**	**NU21W2C9**
			2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4C9**	**NU21W4C9**
			1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3C9**	**NU21Z3C9**
		Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3C9**	**NU21X3C9**
Red mushroom head key release 1NO + 1NC maintained contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2C3**	**NU21W2C3**
			2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4C3**	**NU21W4C3**
			1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3C3**	**NU21Z3C3**
		Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3C3**	**NU21X3C3**
Push Pull Emergency Stop + Push Button ④							
1x red mushroom head push-pull with 1NC maintained contact 1x green push button 'I' with 1NO momentary contact		Bottom	2 x M20	1.1 (2.43)	4.0 (244.1)	**U21W2D9A5**	**NU21W2D9A5**
			2 x M25	1.1 (2.43)	4.0 (244.1)	**U21W4D9A5**	**NU21W4D9A5**
			1 x 3/4"	1.1 (2.43)	4.0 (244.1)	**U21Z3D9A5**	**NU21Z3D9A5**
		Feed-Thru	2 x 3/4"	1.1 (2.43)	4.0 (244.1)	**U21X3D9A5**	**NU21X3D9A5**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ Vertically mounted devices in stainless steel model.

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Unicode® 2 Series Control Stations and Switches

Increased Safety

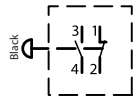
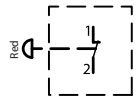
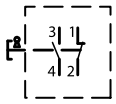
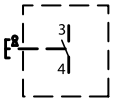
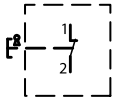
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Size 1 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Mushroom Head Push Button							
Black mushroom head push button 1NO + 1NC momentary contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2B3**	**NU21W2B3**
			2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4B3**	**NU21W4B3**
			1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3B3**	**NU21Z3B3**
		Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3B3**	**NU21X3B3**
Red mushroom head push button 1NC momentary contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2R9**	**NU21W2R9**
			2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4R9**	**NU21W4R9**
			1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3R9**	**NU21Z3R9**
		Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3R9**	**NU21X3R9**
Key Push Button							
With key removable in both positions 1NO + 1NC maintained contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2E3**	**NU21W2E3**
			2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4E3**	**NU21W4E3**
			1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3E3**	**NU21Z3E3**
		Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3E3**	**NU21X3E3**
With key removable in both positions 1NO maintained contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2E5**	**NU21W2E5**
			2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4E5**	**NU21W4E5**
			1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3E5**	**NU21Z3E5**
		Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3E5**	**NU21X3E5**
With key removable in both positions 1NC maintained contact		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2E9**	**NU21W2E9**
			2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4E9**	**NU21W4E9**
			1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3E9**	**NU21Z3E9**
		Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3E9**	**NU21X3E9**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ Vertically mounted devices in stainless steel model.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Control Stations and Switches

Increased Safety

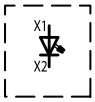
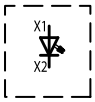
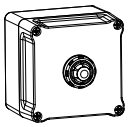
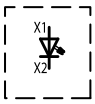
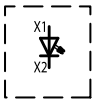
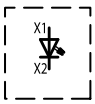
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Size 1 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

	Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Pilot Light								
	1x red pilot light ⑤		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2PR**	**NU21W2PR**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4PR**	**NU21W4PR**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3PR**	**NU21Z3PR**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3PR**	**NU21X3PR**
	1x green pilot light ⑤		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2PG**	**NU21W2PG**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4PG**	**NU21W4PG**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3PG**	**NU21Z3PG**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3PG**	**NU21X3PG**
	1x blue pilot light ⑤		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2PB**	**NU21W2PB**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4PB**	**NU21W4PB**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3PB**	**NU21Z3PB**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3PB**	**NU21X3PB**
	1x yellow pilot light ⑤		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2PY**	**NU21W2PY**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4PY**	**NU21W4PY**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3PY**	**NU21Z3PY**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3PY**	**NU21X3PY**
	1x white pilot light ⑤		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2PW**	**NU21W2PW**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4PW**	**NU21W4PW**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3PW**	**NU21Z3PW**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3PW**	**NU21X3PW**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ Vertically mounted devices in stainless steel model.
⑤ 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc.

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Unicode® 2 Series Control Stations and Switches

Increased Safety

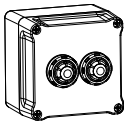
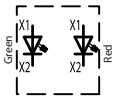
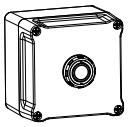
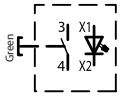
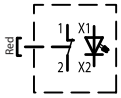
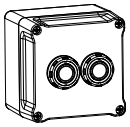
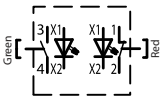
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Size 1 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

	Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Twin Pilot Light ④								
	1x green pilot light ⑤ 1x red pilot light ⑤		Bottom	2 x M20	1.1 (2.43)	4.0 (244.1)	**U21W2PGPR**	**NU21W2PGPR**
				2 x M25	1.1 (2.43)	4.0 (244.1)	**U21W4PGPR**	**NU21W4PGPR**
				1 x 3/4"	1.1 (2.43)	4.0 (244.1)	**U21Z3PGPR**	**NU21Z3PGPR**
			Feed-Thru	2 x 3/4"	1.1 (2.43)	4.0 (244.1)	**U21X3PGPR**	**NU21X3PGPR**
Illuminated Push Button								
	1x green pilot light ⑤		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2LG5**	**NU21W2LG5**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4LG5**	**NU21W4LG5**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3LG5**	**NU21Z3LG5**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3LG5**	**NU21X3LG5**
	1x red pilot light ⑤		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2LR9**	**NU21W2LR9**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4LR9**	**NU21W4LR9**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3LR9**	**NU21Z3LR9**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3LR9**	**NU21X3LR9**
Twin Illuminated Push Button ④								
	1x green illuminated push button with 1NO contact 1x red illuminated push button with 1NC contact Momentary contacts		Bottom	2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2LG5LR9**	**NU21W2LG5LR9**
				2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4LG5LR9**	**NU21W4LG5LR9**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3LG5LR9**	**NU21Z3LG5LR9**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3LG5LR9**	**NU21X3LG5LR9**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ Vertically mounted devices in stainless steel model.
⑤ 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Control Stations and Switches

Increased Safety

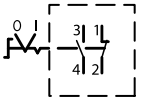
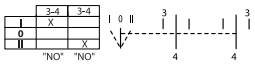
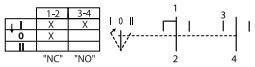
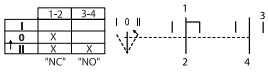
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb
IP66

Size 1 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

	Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
2-Position Selector Switch								
	2 fixed positions ‘0 - I’ 1NO + 1NC contact			2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2H3**	**NU21W2H3**
			Bottom	2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4H3**	**NU21W4H3**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3H3**	**NU21Z3H3**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3H3**	**NU21X3H3**
3-Position Selector Switch								
	3 fixed positions ‘I - 0 - II’ 2NO contact			2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2J1**	**NU21W2J1**
			Bottom	2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4J1**	**NU21W4J1**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3J1**	**NU21Z3J1**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3J1**	**NU21X3J1**
	3 positions ‘I - 0 - II’ with spring return from I to 0 1NO + 1NC contact			2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2N3**	**NU21W2N3**
			Bottom	2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4N3**	**NU21W4N3**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3N3**	**NU21Z3N3**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3N3**	**NU21X3N3**
	3 positions ‘I - 0 - II’ with spring return from II to 0 1NO + 1NC contact			2 x M20	1.0 (2.20)	4.0 (244.1)	**U21W2M3**	**NU21W2M3**
			Bottom	2 x M25	1.0 (2.20)	4.0 (244.1)	**U21W4M3**	**NU21W4M3**
				1 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21Z3M3**	**NU21Z3M3**
			Feed-Thru	2 x 3/4"	1.0 (2.20)	4.0 (244.1)	**U21X3M3**	**NU21X3M3**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ Vertically mounted devices in stainless steel model.

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Unicode® 2 Series Control Stations and Switches

Increased Safety

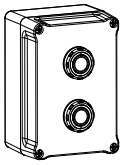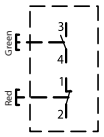
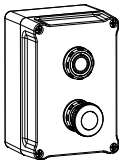
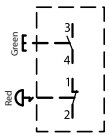
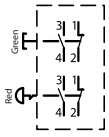
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Size 2 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm^3 (in^3)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Twin Push Button							
 1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts		Bottom	2 x M20	1.2 (2.65)	4.0 (244.1)	**U22W2A5A9**	**NU22W2A5A9**
			2 x M25	1.2 (2.65)	4.0 (244.1)	**U22W4A5A9**	**NU22W4A5A9**
			1 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22Z3A5A9**	**NU22Z3A5A9**
		Feed-Thru	2 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22X3A5A9**	**NU22X3A5A9**
1x green push button 'I' with 1NO + 1NC contact 1x red push button 'O' with 1NO + 1NC contact Momentary contacts		Bottom	2 x M20	1.2 (2.65)	4.0 (244.1)	**U22W2A3A3**	**NU22W2A3A3**
			2 x M25	1.2 (2.65)	4.0 (244.1)	**U22W4A3A3**	**NU22W4A3A3**
			1 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22Z3A3A3**	**NU22Z3A3A3**
		Feed-Thru	2 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22X3A3A3**	**NU22X3A3A3**
Push Button + Push-Pull Emergency Stop							
 1x green push button 'I' with 1NO momentry contact 1x red mushroom head push-pull with 1NC maintained contact		Bottom	2 x M20	1.2 (2.65)	4.0 (244.1)	**U22W2A5D9**	**NU22W2A5D9**
			2 x M25	1.2 (2.65)	4.0 (244.1)	**U22W4A5D9**	**NU22W4A5D9**
			1 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22Z3A5D9**	**NU22Z3A5D9**
		Feed-Thru	2 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22X3A5D9**	**NU22X3A5D9**
1x green push button 'I' with 1NO + 1NC momentry contact 1x red mushroom head push-pull with 1NO + 1NC maintained contact		Bottom	2 x M20	1.2 (2.65)	4.0 (244.1)	**U22W2A3D3**	**NU22W2A3D3**
			2 x M25	1.2 (2.65)	4.0 (244.1)	**U22W4A3D3**	**NU22W4A3D3**
			1 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22Z3A3D3**	**NU22Z3A3D3**
		Feed-Thru	2 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22X3A3D3**	**NU22X3A3D3**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ NOT available in stainless steel.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Control Stations and Switches

Increased Safety

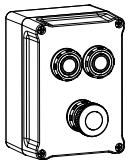
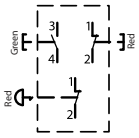
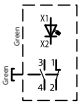
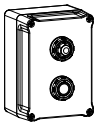
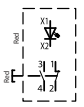
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb
IP66

Size 2 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Twin Push Buttons + Push-Pull Emergency Stop ④							
 1x green push button 'I' with 1NO contacts 1x red push button 'O' with 1NC contacts Momentary contacts 1x red mushroom head push-pull with 1x NC maintained contact			2 x M20	1.3 (2.87)	4.0 (244.1)	**U22W2A5A9D9**	**NU22W2A5A9D9**
		Bottom	2 x M25	1.3 (2.87)	4.0 (244.1)	**U22W4A5A9D9**	**NU22W4A5A9D9**
			1 x 3/4"	1.3 (2.87)	4.0 (244.1)	**U22Z3A5A9D9**	**NU22Z3A5A9D9**
		Feed-Thru	2 x 3/4"	1.3 (2.87)	4.0 (244.1)	**U22X3A5A9D9**	**NU22X3A5A9D9**
Pilot Light + Push Button							
			2 x M20	1.2 (2.65)	4.0 (244.1)	**U22W2PGA5**	**NU22W2PGA5**
1x green light ⑤ 1x green push button 'I' with 1NO Momentary contact		Bottom	2 x M25	1.2 (2.65)	4.0 (244.1)	**U22W4PGA5**	**NU22W4PGA5**
			1 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22Z3PGA5**	**NU22Z3PGA5**
		Feed-Thru	2 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22X3PGA5**	**NU22X3PGA5**
			2 x M20	1.2 (2.65)	4.0 (244.1)	**U22W2PGA3**	**NU22W2PGA3**
1x green light ⑤ 1x green push button 'I' with 1NO + 1NC Momentary contacts		Bottom	2 x M25	1.2 (2.65)	4.0 (244.1)	**U22W4PGA3**	**NU22W4PGA3**
			1 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22Z3PGA3**	**NU22Z3PGA3**
		Feed-Thru	2 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22X3PGA3**	**NU22X3PGA3**
			2 x M20	1.2 (2.65)	4.0 (244.1)	**U22W2PRA9**	**NU22W2PRA9**
1x red light ⑤ 1x red push button 'O' with 1NC Momentary contact		Bottom	2 x M25	1.2 (2.65)	4.0 (244.1)	**U22W4PRA9**	**NU22W4PRA9**
			1 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22Z3PRA9**	**NU22Z3PRA9**
		Feed-Thru	2 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22X3PRA9**	**NU22X3PRA9**
			2 x M20	1.2 (2.65)	4.0 (244.1)	**U22W2PRA3**	**NU22W2PRA3**
1x red light ⑤ 1x red push button 'O' with 1NO + 1NC Momentary contact		Bottom	2 x M25	1.2 (2.65)	4.0 (244.1)	**U22W4PRA3**	**NU22W4PRA3**
			1 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22Z3PRA3**	**NU22Z3PRA3**
		Feed-Thru	2 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22X3PRA3**	**NU22X3PRA3**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ NOT available in stainless steel.

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Unicode® 2 Series Control Stations and Switches

Increased Safety

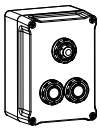
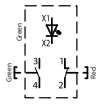
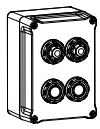
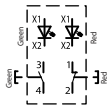
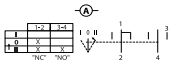
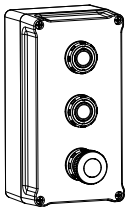
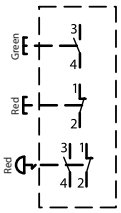
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Size 2 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Pilot Light + Twin Push Buttons ④							
 1x green light ④ 1x green push button 'I' with 1NO 1x red push button 'O' with 1NC Momentary contacts			2 x M20	1.3 (2.87)	4.0 (244.1)	**U22W2PGA5A9**	**NU22W2PGA5A9**
		Bottom	2 x M25	1.3 (2.87)	4.0 (244.1)	**U22W4PGA5A9**	**NU22W4PGA5A9**
			1 x 3/4"	1.3 (2.87)	4.0 (244.1)	**U22Z3PGA5A9**	**NU22Z3PGA5A9**
		Feed-Thru	2 x 3/4"	1.3 (2.87)	4.0 (244.1)	**U22X3PGA5A9**	**NU22X3PGA5A9**
Twin Pilot Lights + Twin Push Buttons ⑤							
 1x green light + 1x red light ④ 1x green push button 'I' with 1NO 1x red push button 'O' with 1NC Momentary contacts			2 x M20	1.3 (2.87)	4.0 (244.1)	**U22W2PGPRA5A9**	**NU22W2PGPRA5A9**
		Bottom	2 x M25	1.3 (2.87)	4.0 (244.1)	**U22W4PGPRA5A9**	**NU22W4PGPRA5A9**
			1 x 3/4"	1.3 (2.87)	4.0 (244.1)	**U22Z3PGPRA5A9**	**NU22Z3PGPRA5A9**
		Feed-Thru	2 x 3/4"	1.3 (2.87)	4.0 (244.1)	**U22X3PGPRA5A9**	**NU22X3PGPRA5A9**
Ammeter + 3-Position Selector Switch							
 1x ammeter 48 x 48 mm, 1A C.T., 3 F.L.C., with 0 - 1 - 3 scale 1x switch 3 positions 'I - 0 - II' with spring return from II to 0 1NO + 1NC contact			2 x M20	1.2 (2.65)	4.0 (244.1)	**U22W2VA13M3**	**NU22W2VA13M3**
		Bottom	2 x M25	1.2 (2.65)	4.0 (244.1)	**U22W4VA13M3**	**NU22W4VA13M3**
			1 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22Z3VA13M3**	**NU22Z3VA13M3**
		Feed-Thru	2 x 3/4"	1.2 (2.65)	4.0 (244.1)	**U22X3VA13M3**	**NU22X3VA13M3**
Twin Push Buttons + Push-Pull Emergency Stop ④							
 1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts 1x red mushroom head push-pull Emergency button with 1NO + 1NC Maintained contacts			2 x M20	1.4 (3.09)	6.0 (366.14)	**U23W2A5A9D3**	**NU23W2A5A9D3**
		Bottom	2 x M25	1.4 (3.09)	6.0 (366.14)	**U23W4A5A9D3**	**NU23W4A5A9D3**
			1 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23Z3A5A9D3**	**NU23Z3A5A9D3**
		Feed-Thru	2 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23X3A5A9D3**	**NU23X3A5A9D3**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc.
⑤ NOT available in stainless steel.

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Control Stations and Switches

Increased Safety

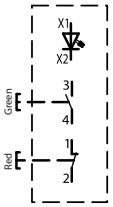
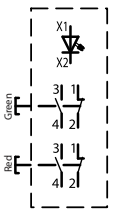
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

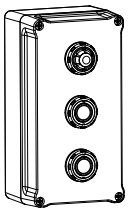
ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb
IP66

Size 3 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Pilot Light + Twin Push Buttons ⑤							
1x green light ④ 1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts			2 x M20	1.4 (3.09)	6.0 (366.14)	**U23W2PGA5A9**	**NU23W2PGA5A9**
		Bottom	2 x M25	1.4 (3.09)	6.0 (366.14)	**U23W4PGA5A9**	**NU23W4PGA5A9**
			1 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23Z3PGA5A9**	**NU23Z3PGA5A9**
		Feed-Thru	2 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23X3PGA5A9**	**NU23X3PGA5A9**
1x red light ④ 1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts			2 x M20	1.4 (3.09)	6.0 (366.14)	**U23W2PRA5A9**	**NU23W2PRA5A9**
		Bottom	2 x M25	1.4 (3.09)	6.0 (366.14)	**U23W4PRA5A9**	**NU23W4PRA5A9**
			1 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23Z3PRA5A9**	**NU23Z3PRA5A9**
		Feed-Thru	2 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23X3PRA5A9**	**NU23X3PRA5A9**
1x green light ④ 1x green push button 'I' with 1NO + 1NC contact 1x red push button 'O' with 1NO + 1NC contact Momentary contacts			2 x M20	1.4 (3.09)	6.0 (366.14)	**U23W2PGA3A3**	**NU23W2PGA3A3**
		Bottom	2 x M25	1.4 (3.09)	6.0 (366.14)	**U23W4PGA3A3**	**NU23W4PGA3A3**
			1 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23Z3PGA3A3**	**NU23Z3PGA3A3**
		Feed-Thru	2 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23X3PGA3A3**	**NU23X3PGA3A3**
1x red light ④ 1x green push button 'I' with 1NO + 1NC contact 1x red push button 'O' with 1NO + 1NC contact Momentary contacts			2 x M20	1.4 (3.09)	6.0 (366.14)	**U23W2PRA3A3**	**NU23W2PRA3A3**
		Bottom	2 x M25	1.4 (3.09)	6.0 (366.14)	**U23W4PRA3A3**	**NU23W4PRA3A3**
			1 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23Z3PRA3A3**	**NU23Z3PRA3A3**
		Feed-Thru	2 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23X3PRA3A3**	**NU23X3PRA3A3**



Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc.
⑤ NOT available in stainless steel.

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Unicode® 2 Series Control Stations and Switches

Increased Safety

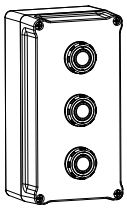
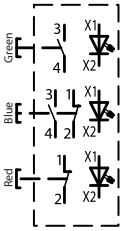
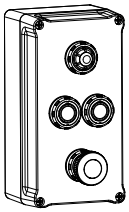
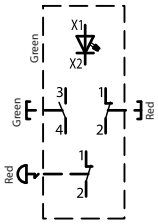
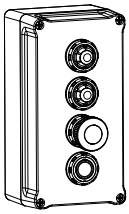
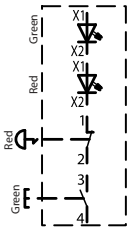
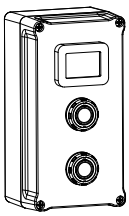
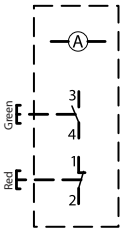
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Size 3 Polyester Control Station
For stainless steel change the **U2** prefix to **U6**, for aluminum change the **U2** prefix to **U8**.
Included: 1 white self-adhesive laminated plastic nameplate, 1 brass earth continuity plate ②, 1 blanking plug ③, 1 cable gland ③.

Description/Function	Diagram	Entry Location	Entry Size	Weight kg (lb)	Volume dm³ (in³)	Polyester Catalog Number IECEx	Polyester Catalog Number NBR IEC
Triple Illuminated Push Buttons ⑤							
 1x green illuminated push button with 1NO contact ④ 1x blue illuminated push button with 1NO + 1NC contact ④ 1x red illuminated push button with NC contact ④ Momentary contacts		Bottom	2 x M20	1.4 (3.09)	6.0 (366.14)	**U23W2LG5LB3LR9**	**NU23W2LG5LB3LR9**
			2 x M25	1.4 (3.09)	6.0 (366.14)	**U23W4LG5LB3LR9**	**NU23W4LG5LB3LR9**
			1 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23Z3LG5LB3LR9**	**NU23Z3LG5LB3LR9**
		Feed-Thru	2 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23X3LG5LB3LR9**	**NU23X3LG5LB3LR9**
Pilot Light + Twin Push Buttons + Push-Pull Emergency Stop ④							
 1x green light ④ 1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts 1x red mushroom head push-pull with 1x NC maintained contact		Bot-tom	2 x M20	1.4 (3.09)	6.0 (366.14)	**U23W2PGA5A9D9**	**NU23W2PGA5A9D9**
			2 x M25	1.4 (3.09)	6.0 (366.14)	**U23W4PGA5A9D9**	**NU23W4PGA5A9D9**
			1 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23Z3PGA5A9D9**	**NU23Z3PGA5A9D9**
		Feed-Thru	2 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23X3PGA5A9D9**	**NU23X3PGA5A9D9**
Twin Pilot Lights + Push-Pull Emergency Stop + Push Button ③							
 1x green light + 1x red light ⑤ 1x red mushroom head push-pull with 1x NC maintained contact 1x green push button 'I' with 1NO momentary contact		Bot-tom	2 x M20	1.4 (3.09)	6.0 (366.14)	**U23W2PGPRD9A5**	**NU23W2PGPRD9A5**
			2 x M25	1.4 (3.09)	6.0 (366.14)	**U23W4PGPRD9A5**	**NU23W4PGPRD9A5**
			1 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23Z3PGPRD9A5**	**NU23Z3PGPRD9A5**
		Feed-Thru	2 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23X3PGPRD9A5**	**NU23X3PGPRD9A5**
Ammeter + Twin Push Buttons ④							
 1x ammeter 48 x 48 mm, 1A C.T., 3 F.L.C., with 0 - 1 - 3 scale 1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts		Bot-tom	2 x M20	1.4 (3.09)	6.0 (366.14)	**U23W2VA13A5A9**	**NU23W2VA13A5A9**
			2 x M25	1.4 (3.09)	6.0 (366.14)	**U23W4VA13A5A9**	**NU23W4VA13A5A9**
			1 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23Z3VA13A5A9**	**NU23Z3VA13A5A9**
		Feed-Thru	2 x 3/4"	1.4 (3.09)	6.0 (366.14)	**U23X3VA13A5A9**	**NU23X3VA13A5A9**

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Not required for stainless steel or aluminum.
③ Not included if NPT hubs are selected.
④ Available in stainless steel as a size 3 enclosure only.
⑤ 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Control Station and Switch Accessories

Increased Safety

Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

Nameplates — Set of 10

Blank self-adhesive, laminated plastic 58 mm x 18 mm (2.29" x 0.71").

Color	Catalog Number
White (black letters)	**UNPW**
Yellow (black letters)	**UNPY**
Red (white letters)	**UNPR**
Blue (white letters)	**UNPB**
Black (white letters)	**UNPN**
Green (white letters)	**UNPG**

Inserts for Push Button — Set of 5

Marking	Color	Catalog Number
(unmarked)	Green	**UIAG**
(unmarked)	Red	**UIAR**
(unmarked)	Yellow	**UIAY**
(unmarked)	White	**UIAW**
(unmarked)	Blue	**UIAB**
(unmarked)	Black	**UIAN**
ON	Green	**UIA01**
OFF	Red	**UIA02**
START	Green	**UIA03**
STOP	Red	**UIA04**
MARCHE	Green	**UIA05**
ARRET	Red	**UIA06**
I	Green	**UIA07**
O	Red	**UIA08**

Inserts for Illuminated Push Button — Set of 5

Marking	Color	Catalog Number
(unmarked)	Green	**UILG**
(unmarked)	Red	**UILR**
(unmarked)	Yellow	**UILY**
(unmarked)	White	**UILW**
(unmarked)	Blue	**UILB**
ON	Green	**UIL01**
OFF	Red	**UIL02**
START	Green	**UIL03**
STOP	Red	**UIL04**
MARCHE	Green	**UIL05**
ARRET	Red	**UIL06**
I	Green	**UIL07**
O	Red	**UIL08**

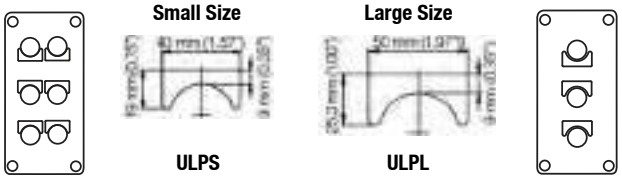
Spare Key

For all key-operated buttons.

Description	Catalog Number
Spare key type 4 A 185	**SK4A185**

Standard Legend Plates

Two sizes available. Self-adhesive yellow laminated plastic (black lettering).



Text	Catalog Number Small	Large
Blank (set of 10)	**ULPS**	**ULPL**
ON	**ULPSA01**	**ULPLA01**
OFF	**ULPSA02**	**ULPLA02**
FORWARD	**ULPSA03**	**ULPLA03**
REVERSE	**ULPSA04**	**ULPLA04**
JOG	**ULPSA05**	**ULPLA05**
RUN	**ULPSA06**	**ULPLA06**
START	**ULPSA07**	**ULPLA07**
STOP	**ULPSA08**	**ULPLA08**
UP	**ULPSA09**	**ULPLA09**
DOWN	**ULPSA10**	**ULPLA10**
FAST	**ULPSA11**	**ULPLA11**
SLOW	**ULPSA12**	**ULPLA12**
RAISE	**ULPSA13**	**ULPLA13**
LOWER	**ULPSA14**	**ULPLA14**
OPEN	**ULPSA15**	**ULPLA15**
CLOSE	**ULPSA16**	**ULPLA16**
LOW	**ULPSA17**	**ULPLA17**
HIGH	**ULPSA18**	**ULPLA18**
TEST	**ULPSA19**	**ULPLA19**
RESET	**ULPSA20**	**ULPLA20**
EMERGENCY STOP	**ULPSA21**	**ULPLA21**
MARCHE	**ULPSA22**	**ULPLA22**
ARRET	**ULPSA23**	**ULPLA23**
ARRET D'URGENCE	**ULPSA24**	**ULPLA24**
HAUT	**ULPSA25**	**ULPLA25**
BAS	**ULPSA26**	**ULPLA26**
O—I	**ULPSH01**	**ULPLH01**
ON—OFF	**ULPSH02**	**ULPLH02**
START—STOP	**ULPSH03**	**ULPLH03**
STOP—START	**ULPSH04**	**ULPLH04**
HAND—AUTO	**ULPSH05**	**ULPLH05**
MANU—AUTO	**ULPSH06**	**ULPLH06**
FORWARD—REVERSE	**ULPSH07**	**ULPLH07**
REMOTE—LOCAL	**ULPSH08**	**ULPLH08**
MARCHE—ARRET	**ULPSH09**	**ULPLH09**
I—O—II	**ULPSJ01**	**ULPLJ01**
OFF—O—ON	**ULPSJ02**	**ULPLJ02**
START—NORMAL—STOP	**ULPSJ03**	**ULPLJ03**
HAND—OFF—AUTO	**ULPSJ04**	**ULPLJ04**
MANU—O—AUTO	**ULPSJ05**	**ULPLJ05**
FORWARD—OFF—REVERSE	**ULPSJ06**	**ULPLJ06**
LOCAL—REMOTE—AUTO	**ULPSJ07**	**ULPLJ07**
LOCAL—O—REMOTE	**ULPSJ08**	**ULPLJ08**
MARCHE—NORMAL—ARRET	**ULPSJ09**	**ULPLJ09**

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Unicode® 2 Series Control Station and Switch Accessories

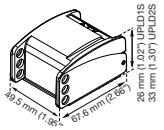
Increased Safety

Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or
eib IIC Gb
IP66

	Description	Catalog Number IECEx	Catalog Number NBR IEC
	**Additional Contacts** *Each actuator is capable of activating 3 contacts.* *Exception: Illuminated push button and all actuators with key: 2 contacts maximum*		
	1NO contact	**UCB5R**	**NUCB5R**
	1NC contact	**UCB9R**	**NUCB9R**
	**Yellow Guard**		
	Mushroom head protection for emergency stop	**098657**	**N098657**
	**Padlockable Guard** *Stainless steel and plastic cover, capacity: 3 padlocks diameter 0.24"/6 mm maximum (not supplied)*		
	For push button and rotary actuator  	**UPLD1S**	**NUPLD1S**
	For mushroom head actuator 	**UPLD2S**	**NUPLD2S**
	**Cable Gland Exe** *For unarmored cable Exe - IP66 - in polyamide entry thread seal*		
	M20 (capacity 6.5-14.5 mm)	**095605**	**N95605**
	*For armored cable Exe/Exd - IP66 - in nickel plated brass (without entry thread seal)* Braid and Tape type:		
	M20 (inner: 6.4-14.0/outer: 12.5-20.9 mm)	**20E1FX5**	**N20E1FX5**
	Single Wired Armor (SWA):		
	M20 (inner: 6.4-14.0/outer: 12.5-20.9 mm)	**20E1FW5**	**N20E1FW5**
	**Adaptors** *Exd/Exe - IP66 in nickel plated brass (without entry thread seal)*		
	Male M20 - Female 1/2" NPT	**737DM2T15**	**N737DM2T15**
	Male M20 - Female 3/4" NPT	**737DM2T25**	**N737DM2T25**
	**Entry Thread Seal**		
	M20 (in white nylon)	**20ETS2**	**N20ETS2**
	**Combination Drain and Breather** *Exe - IP66 - supplied with entry thread seal and locknut*		
	M20 male thread in Polyamide	**DBE20P**	—
	M20 male thread in Brass	**DBE20B**	—
	M20 male thread in Stainless Steel	**DBE20S**	—
	**Feed-Thru Earth Stud Terminal** *Exe - IP66 – supplied with weatherproof seal and green/yellow earth conductor — 300 mm (11.81") length*		
	M20 with M5 earth and 2.5 mm² (0.004 in²) conductor	**PREESTM20**	**NPREESTM20**

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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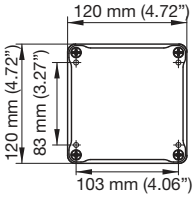
Unicode® 2 Series Control Station and Switch Dimensions

Increased Safety

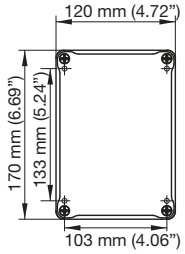
Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

Dimensions in Millimeters (Inches)

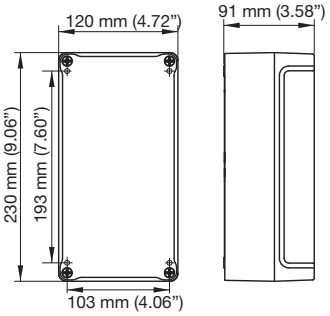
Fiberglass Reinforced Polyester



Size 1 Box



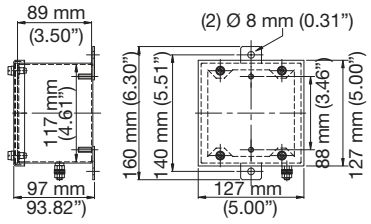
Size 2 Box



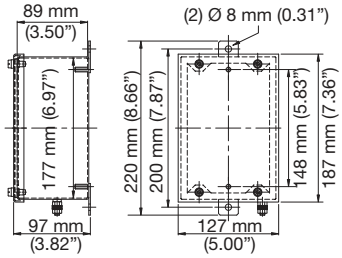
Size 3 Box

Mounting/Fixing Details for Above Boxes: Four Holes Ø 5 mm (0.20")

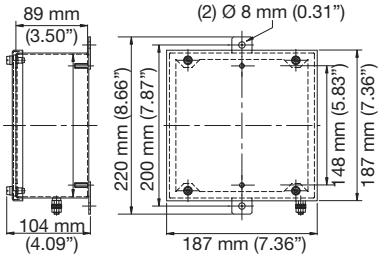
316L Stainless Steel



Size 1 Box

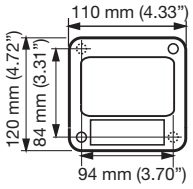


Size 2 Box

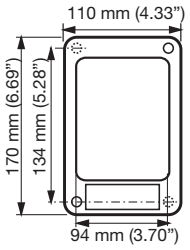


Size 3 Box

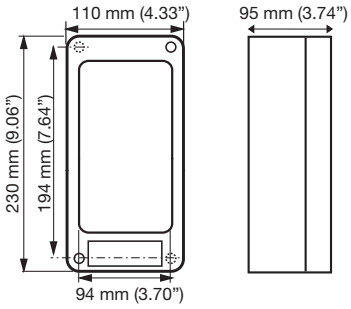
Aluminum



Size 1 Box



Size 2 Box



Size 3 Box

Mounting/Fixing Details for above Boxes: Two Holes Ø 5 mm (0.20")

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Unicode® 2 Series Polyamide Control Stations

Increased Safety

For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/Ex tb IIIC Db
IP66

Applications

- For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.
- Local control stations and motor control stations for use in hazardous areas covering the broadest possible range of applications.
- Control of equipment at:
  - — Power plants
  - — Chemical and petrochemical plants
  - — Petroleum refineries
  - — Reverse osmosis plants
  - — Pulp and paper processing plants
  - — Various industrial applications
- Push buttons and selector switches are used in conjunction with contactors or magnetic starters for remote control of motors in hazardous locations. They provide circuit control and/or selection.
- Pilot lights provide visual assurance that an electrical function is being performed at a remote or hazardous location.
- For use in washdown areas.

Features

- Employs Ex de method of protection which eliminates the need for external seals.
- Operators include push buttons, illuminated push buttons, selector switches, control and load break switches and LED pilot lights.
- Pilot light employs high intensity single LED with lifetime of 100,000 hours that can be used at:
  - — 12 Vac to 254 Vac 50/60 Hz
  - — 12 Vdc to 60 Vdc
- Up to 3 contact blocks per actuator can be used.
- Contact block technical data:
  - — IEC rated operating voltage (Ue): 500 Vac – 110 Vdc
  - — IEC switching capacity:
    - – AC12: 16 Amp/400 Vac
    - – AC14: 10 Amp/400 Vac
    - – AC15: 6 Amp/500 Vac
    - – DC13: 2 Amp/24 Vdc and 1 Amp/110 Vdc
  - — NEMA switching capacity: A600: 10 Amp/600 Vac
- Selector switch technical data:
  - — IEC rated operating voltage: 690 Vac
  - — IEC rated operating current: maximum 16 Amp
  - — IEC switching capacity:
    - – AC1: 16 Amp/690 Vac
    - – AC15: 16 Amp/415 Vac
    - – AC3: 8 Amp/500 Vac
    - – AC3: 4 Amp/690 Vac
    - – AC3: 16 Amp/690 Vac
    - – DC1: 10 Amp/24 Vdc
    - – DC1: 6 Amp/60 Vdc
    - – DC1: 6 Amp/110 Vdc (2 contacts wired in series)
    - – DC1: 6 Amp/220 Vdc (3 contacts in series)
  - — NEMA switching capacity: A600: 10 Amp/600 Vac
- Enclosures are rated for IP66 with firmly secured gasket.
- Operators and contact blocks are spaced so as to have easy and ample space for wiring.
- Wide selection of termination methods available.
- Choice of DIN rail mounted high performance contact block suitable for low intensity (less than 5mA).



U43W2 VA13A5A9



U42W2 A5A9

- TS35 rail mounted components held securely in place during operation and easily removed for service.
- Brass Inserts are provided for TS35 DIN rails or mounting plate to be installed inside the enclosure.
- Captive, corrosion resistant stainless steel cover screws.

Standard Materials

- Body, cover, cable gland and blanking plug: polyamide, black finish
- Cover screws: stainless steel
- Optional nameplates: stainless steel

Accessories

- Key for changing actuator blocks.
- Guard for mushroom head actuator.
- Padlockable guard.
- M5 earth stud.
- Combination drain and breather available in brass, polyamide and stainless steel.

Options

- Nameplates: Lamacoid with different color combinations.
- Padlocking facility at left, center, right or any position on selector switches.
- Padlocking facility for momentary and maintained push buttons.
- Special contact arrangements available, see *Unicode 2 Series Customized Control Stations*.

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Polyamide Control Stations

Increased Safety

For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/Ex tb IIIC Db
IP66

ATEX/IECEx Certifications and Compliances

- Certification Type PCe
  - Gas: Zone 1 and 2
  - Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
  - ATEX/IEC Protection: Ex de IIC/Ex demb IIC
  - T Rating: T6
- Certification Type PCe
  - Dust: Zone 21 and 22
  - Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
  - ATEX/IEC Protection: Ex tD A21
  - Surface Temperature: T75 °C (T167 °F)
- Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- CE Declaration of Conformity: 50221
- ATEX Certificate: LCIE 00 ATEX 6047
- IEC Certificate: LCIE Ex 00.017
- Other Certifications: GOST R
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK09
- Ex standards :EN/IEC 60079-0; 60079-1; 60079-7; 60079-18; 61241-0; 61241-1
- Product standards: EN/IEC 60947-1; 60947-5
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type PCe
  - Gas: Zones 1 and 2
  - IEC Marking: Ex de IIC Gb/Ex demb IIC Gb
  - T Rating: T5/T6
- Certification Type PCe
  - Dust: Zones 21 and 22
  - IEC Marking: Ex tb IIIC Db
- Ambient temperature: -55°C to +60°C (-67°F to +140°F)
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 11.0640-X
- Ingress Protection: IP66
- Impact Resistance (shock): IK09
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-31
- Other Standards: ABNT NBR IEC IEC 60529 (IP)

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Unicode® 2 Series Polyamide Control Stations

Increased Safety

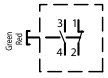
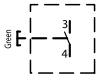
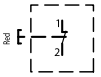
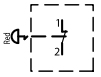
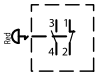
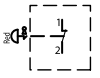
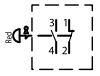
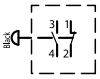
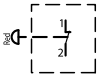
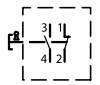
For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/Ex tb IIIC Db
IP66

Size 1 Polyamide Control Station:
Included: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide [Ø 6.5 mm to 14.5 mm (0.26" to 0.57")], 2 locknuts.



	Description/Function	Diagram	Bottom Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR IEC
Momentary Push Button							
	Green insert 'I' + red insert 'O' with 1NO + 1NC momentary contacts		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2A3**	**NU41W2A3**
	1x green push button "I" with 1NO momentary contact		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2A5**	**NU41W2A5**
	1x red push button "O" with 1NC momentary contact		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2A9**	**NU41W2A9**
Emergency Stop							
	Red mushroom head push-pull 1NC maintained contact		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2D9**	**NU41W2D9**
	Red mushroom head push-pull 1NO + 1NC maintained contacts		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2D3**	**NU41W2D3**
	Red mushroom head key release 1NC maintained contact		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2C9**	**NU41W2C9**
	Red mushroom head key release 1NO + 1NC maintained contacts		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2C3**	**NU41W2C3**
Mushroom Head Push Button							
	Black mushroom head push button 1NO + 1NC momentary contacts		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2B3**	**NU41W2B3**
	Red mushroom head push button 1NC momentary contact		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2R9**	**NU41W2R9**
Key Push Button							
	With key removable in both positions 1NO + 1NC maintained contacts		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2E3**	**NU41W2E3**

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Unicode® 2 Series Polyamide Control Stations

Increased Safety

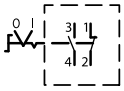
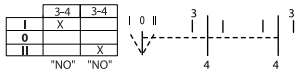
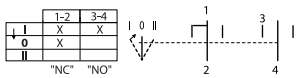
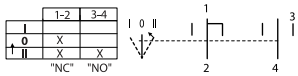
For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/Ex tb IIIC Db
IP66

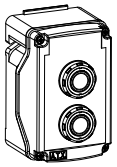
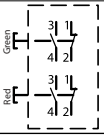
Size 1 Polyamide Control Station:
Included: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide [Ø 6.5 mm to 14.5 mm (0.26" to 0.57")], 2 locknuts.



	Description/Function	Diagram	Bottom Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR IEC
Pilot Light							
	1x red pilot light ①		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2PR**	**NU41W2PR**
	1x green pilot light ①		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2PG**	**NU41W2PG**
	1x blue pilot light ①		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2PB**	**NU41W2PB**
	1x yellow pilot light ①		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2PY**	**NU41W2PY**
	1x white pilot light ①		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2PW**	**NU41W2PW**
2-Position Selector Switch							
	2 fixed positions ' 0 - I ' 1NO + 1NC contacts		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2H3**	**NU41W2H3**
3-Position Selector Switch							
	3 fixed positions ' I - 0 - II ' 2NO contact		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2J1**	**NU41W2J1**
	3 positions ' I - 0 - II ' With spring return from I to 0 1NO + 1NC contacts		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2N3**	**NU41W2N3**
	3 positions ' I - 0 - II ' With spring return from II to 0 1NO + 1NC contacts		2 x M20	0.48 (1.06)	2.5 (152.56)	**U41W2M3**	**NU41W2M3**

Size 2 Polyamide Control Station:
Included: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide [Ø 6.5 mm to 14.5 mm (0.26" to 0.57")], 2 locknuts.



	Description/Function	Diagram	Bottom Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR IEC
Twin Push Button							
	1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts		2 x M20	0.62 (1.37)	2.5 (152.56)	**U42W2A5A9**	**NU42W2A5A9**
	1x green push button 'I' with 1NO + 1NC contacts 1x red push button 'O' with 1NO + 1NC contacts Momentary contacts		2 x M20	0.62 (1.37)	2.5 (152.56)	**U42W2A3A3**	**NU42W2A3A3**

① *12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc.*

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Unicode® 2 Series Polyamide Control Stations

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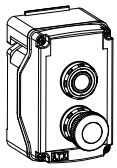
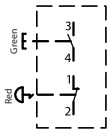
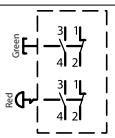
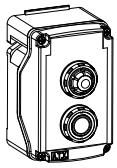
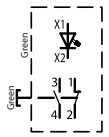
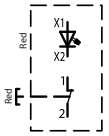
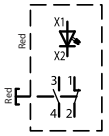
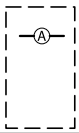
For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/Ex tb IIIC Db
IP66

Size 2 Polyamide Control Station:
Included: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide [Ø 6.5 mm to 14.5 mm (0.26" to 0.57")], 2 locknuts.



	Description/Function	Diagram	Bottom Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR IEC
Push Button + Push-Pull Emergency Stop							
	1x green push button 'I' with 1NO momentary contact 1x red mushroom head push-pull with 1NC maintained contact		2 x M20	0.62 (1.37)	2.5 (152.56)	**U42W2A5D9**	**NU42W2A5D9**
	1x green push button 'I' with 1NO + 1NC momentary contacts 1x red mushroom head push-pull with 1NO + 1NC maintained contacts		2 x M20	0.62 (1.37)	2.5 (152.56)	**U42W2A3D3**	**NU42W2A3D3**
Push Button + Push-Pull Emergency Stop							
	1x green light ① 1x green push button 'I' with 1NO Momentary contact		2 x M20	0.62 (1.37)	2.5 (152.56)	**U42W2PGA5**	**NU42W2PGA5**
	1x green light ① 1x green push button 'I' with 1NO + 1NC Momentary contacts		2 x M20	0.62 (1.37)	2.5 (152.56)	**U42W2PGA3**	**NU42W2PGA3**
	1x red light ① 1x red push button 'O' with 1NC Momentary contact		2 x M20	0.62 (1.37)	2.5 (152.56)	**U42W2PRA9**	**NU42W2PRA9**
	1x red light ① 1x red push button 'O' with 1NO + 1NC Momentary contacts		2 x M20	0.62 (1.37)	2.5 (152.56)	**U42W2PRA3**	**NU42W2PRA3**
Ammeter							
	1x ammeter 48 x 48 mm, (1.89" x 1.89") 1A C.T., 3 F.L.C., with 0 - 1 - 3 scale		2 x M20	0.56 (1.23)	2.5 (152.56)	**U42W2VA13**	**NU42W2VA13**

① 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Polyamide Control Stations

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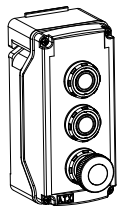
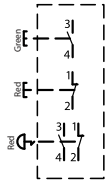
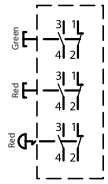
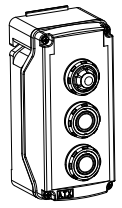
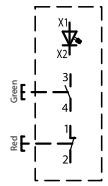
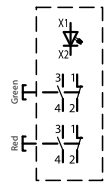
For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/Ex tb IIIC Db
IP66

Size 3 Polyamide Control Station:
Included: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide [Ø 6.5 mm to 14.5 mm (0.26" to 0.57")], 2 locknuts.



	Description/Function	Diagram	Bottom Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR IEC
Twin Push Buttons + Push-Pull Emergency Stop							
	1x green push button 'I' with 1NO contacts 1x red push button 'O' with 1NC contact Momentary contacts 1x red mushroom head push-pull emergency button with 1NO + 1NC maintained contacts		2 x M20	0.78 (1.72)	2.5 (152.56)	**U43W2A5A9D3**	**NU43W2A5A9D3**
	1x green push button 'I' with 1NO + 1NC contacts 1x red push button 'O' with 1NO + 1NC contacts Momentary contacts 1x red mushroom head push-pull emergency button with 1NO + 1NC maintained contacts		2 x M20	0.78 (1.72)	2.5 (152.56)	**U43W2A3A3D3**	**NU43W2A3A3D3**
Pilot Light + Twin Push Buttons							
	1x green light ① 1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts		2 x M20	0.78 (1.72)	2.5 (152.56)	**U43W2PGA5A9**	**NU43W2PGA5A9**
	1x red light ① 1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NO contact Momentary contacts		2 x M20	0.78 (1.72)	2.5 (152.56)	**U43W2PRA5A9**	**NU43W2PRA5A9**
	1x green light ① 1x green push button 'I' with 1NO + 1NC contacts 1x red push button 'O' with 1NO + 1NC contacts Momentary contacts		2 x M20	0.78 (1.72)	2.5 (152.56)	**U43W2PGA3A3**	**NU43W2PGA3A3**
	1x red light ① 1x green push button 'I' with 1NO + 1NC contacts 1x red push button 'O' with 1NO + 1NC contacts Momentary contacts		2 x M20	0.78 (1.72)	2.5 (152.56)	**U43W2PRA3A3**	**NU43W2PRA3A3**

① *12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc.*

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Unicode® 2 Series Polyamide Control Stations

Increased Safety

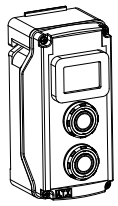
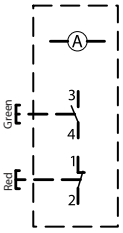
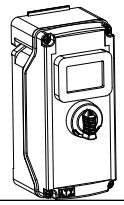
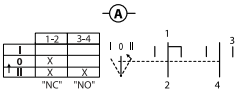
For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/Ex tb IIIC Db
IP66

Size 3 Polyamide Control Station:
Included: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide [Ø 6.5 mm to 14.5 mm (0.26" to 0.57")], 2 locknuts.



Description/Function	Diagram	Bottom Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR IEC
Ammeter + Twin Push Button						
 1x ammeter 1.89 x 1.89 in/48 x 48 mm, 1A C.T., 3 F.L.C., with 0 - 1 - 3 scale 1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts		2 x M20	0.80 (1.76)	2.5 (152.56)	**U43W2VA13A5A9**	**NU43W2VA13A5A9**
Ammeter + 3-Position Selector Switch						
 1x ammeter 1.89 x 1.89 in/48 x 48 mm, 1A C.T.,3 F.L.C., with 0 - 1 - 3 scale 1x 3-position selector switch 'I - 0 - II' with spring return from II to 0 1NO + 1NC contacts		2 x M20	0.80 (1.76)	2.5 (152.56)	**U43W2VA13M3**	**NU43W2VA13M3**
Special Accessories for Polyamide Enclosure						
 **Brass Earthing Plate for 2 x M20** Equipped with 2 earth connections					**098661**	**N98661**
 **Tube or Frame Fixing** FOR SIZE 1 ONLY For all tube diameter ≥ 80 mm (3.15") Using a metal strip (not supplied) maximum width 22 mm (0.87")					**098656**	**N98656**

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Unicode® 2 Series Polyamide Control Station Accessories

Increased Safety

For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/Ex tb IIIC Db
IP66

Nameplates — Set of 10

Blank self-adhesive, laminated plastic 58 mm x 18 mm (2.29" x 0.71").

Color	Catalog Number	Pack
White (black letters)	**UNPW**	1
Yellow (black letters)	**UNPY**	1
Red (white letters)	**UNPR**	1
Blue (white letters)	**UNPB**	1
Black (white letters)	**UNPN**	1
Green (white letters)	**UNPG**	1

Inserts for Push Button — Set of 5

Marking	Color	Catalog Number	Pack
(unmarked)	Green	**UIAG**	1
(unmarked)	Red	**UIAR**	1
(unmarked)	Yellow	**UIAY**	1
(unmarked)	White	**UIAW**	1
(unmarked)	Blue	**UIAB**	1
(unmarked)	Black	**UIAN**	1
ON	Green	**UIA01**	1
OFF	Red	**UIA02**	1
START	Green	**UIA03**	1
STOP	Red	**UIA04**	1
MARCHE	Green	**UIA05**	1
ARRET	Red	**UIA06**	1
I	Green	**UIA07**	1
O	Red	**UIA08**	1

Inserts for Illuminated Push Button — Set of 5

Marking	Color	Catalog Number	Pack
(unmarked)	Green	**UILG**	1
(unmarked)	Red	**UILR**	1
(unmarked)	Yellow	**UILY**	1
(unmarked)	White	**UILW**	1
(unmarked)	Blue	**UILB**	1
ON	Green	**UIL01**	1
OFF	Red	**UIL02**	1
START	Green	**UIL03**	1
STOP	Red	**UIL04**	1
MARCHE	Green	**UIL05**	1
ARRET	Red	**UIL06**	1
I	Green	**UIL07**	1
O	Red	**UIL08**	1

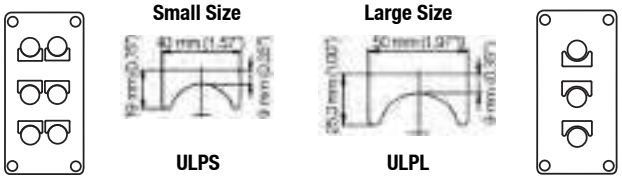
Spare Key

For all key-operated buttons.

Description	Catalog Number	Pack
Spare key type 4 A 185	**SK4A185**	1

Standard Legend Plates

Two sizes available. Self-adhesive yellow laminated plastic (black lettering).



Text	Catalog Number Small	Large	Pack
Blank (set of 10)	**ULPS**	**ULPL**	1
ON	**ULPSA01**	**ULPLA01**	1
OFF	**ULPSA02**	**ULPLA02**	1
FORWARD	**ULPSA03**	**ULPLA03**	1
REVERSE	**ULPSA04**	**ULPLA04**	1
JOG	**ULPSA05**	**ULPLA05**	1
RUN	**ULPSA06**	**ULPLA06**	1
START	**ULPSA07**	**ULPLA07**	1
STOP	**ULPSA08**	**ULPLA08**	1
UP	**ULPSA09**	**ULPLA09**	1
DOWN	**ULPSA10**	**ULPLA10**	1
FAST	**ULPSA11**	**ULPLA11**	1
SLOW	**ULPSA12**	**ULPLA12**	1
RAISE	**ULPSA13**	**ULPLA13**	1
LOWER	**ULPSA14**	**ULPLA14**	1
OPEN	**ULPSA15**	**ULPLA15**	1
CLOSE	**ULPSA16**	**ULPLA16**	1
LOW	**ULPSA17**	**ULPLA17**	1
HIGH	**ULPSA18**	**ULPLA18**	1
TEST	**ULPSA19**	**ULPLA19**	1
RESET	**ULPSA20**	**ULPLA20**	1
EMERGENCY STOP	**ULPSA21**	**ULPLA21**	1
MARCHE	**ULPSA22**	**ULPLA22**	1
ARRET	**ULPSA23**	**ULPLA23**	1
ARRET D'URGENCE	**ULPSA24**	**ULPLA24**	1
HAUT	**ULPSA25**	**ULPLA25**	1
BAS	**ULPSA26**	**ULPLA26**	1
O - I	**ULPSH01**	**ULPLH01**	1
ON - OFF	**ULPSH02**	**ULPLH02**	1
START - STOP	**ULPSH03**	**ULPLH03**	1
STOP - START	**ULPSH04**	**ULPLH04**	1
HAND - AUTO	**ULPSH05**	**ULPLH05**	1
MANU - AUTO	**ULPSH06**	**ULPLH06**	1
FORWARD - REVERSE	**ULPSH07**	**ULPLH07**	1
REMOTE - LOCAL	**ULPSH08**	**ULPLH08**	1
MARCHE - ARRET	**ULPSH09**	**ULPLH09**	1
I - O - II	**ULPSJ01**	**ULPLJ01**	1
OFF - O - ON	**ULPSJ02**	**ULPLJ02**	1
START - NORMAL - STOP	**ULPSJ03**	**ULPLJ03**	1
HAND - OFF - AUTO	**ULPSJ04**	**ULPLJ04**	1
MANU - O - AUTO	**ULPSJ05**	**ULPLJ05**	1
FORWARD - OFF - REVERSE	**ULPSJ06**	**ULPLJ06**	1
LOCAL - REMOTE - AUTO	**ULPSJ07**	**ULPLJ07**	1
LOCAL - O - REMOTE	**ULPSJ08**	**ULPLJ08**	1
MARCHE - NORMAL - ARRET	**ULPSJ09**	**ULPLJ09**	1

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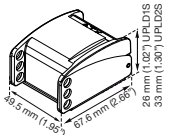
Unicode® 2 Series Polyamide Control Station Accessories

Increased Safety

For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/Ex tb IIIC Db
IP66

	Description	Catalog Number IECEx	Catalog Number NBR IEC
	**Additional Contacts** *Each actuator is capable of activating 3 contacts.* *Exception: Illuminated push button and all actuators with key: 2 contacts maximum*		
	1NO contact	**UCB5R**	**NUCB5R**
	1NC contact	**UCB9R**	**NUCB9R**
	**Yellow Guard**		
	Mushroom head protection for emergency stop	**098657**	**N098657**
	**Padlockable Guard** *Stainless steel and plastic cover, capacity: 3 padlocks diameter 6 mm (0.24") maximum (not supplied)*		
	For push button and rotary actuator 	**UPLD1S**	**NUPLD1S**
	For mushroom head actuator 	**UPLD2S**	**NUPLD2S**
	**Cable Gland Exe** *For unarmored cable Exe - IP66 - in polyamide entry thread seal*		
	M20 (capacity 6.5-14.5 mm)	**095605**	**N95605**
	*For armored cable Exe/Exd - IP66 - in nickel plated brass (without entry thread seal)*		
	Braid and Tape type:		
	M20 (inner: 6.4-14.0/outer: 12.5-20.9 mm)	**20E1FX5**	**N20E1FX5**
	Single Wired Armor (SWA):		
	M20 (inner: 6.4-14.0/outer: 12.5-20.9 mm)	**20E1FW5**	**N20E1FW5**
	**Adaptors** *Exd/Exe - IP66 in nickel plated brass (without entry thread seal)*		
	Male M20 - Female 1/2" NPT	**737DM2T15**	**N737DM2T15**
	Male M20 - Female 3/4" NPT	**737DM2T25**	**N737DM2T25**
	**Entry Thread Seal**		
	M20 (in white nylon)	**20ETS2**	**N20ETS2**
	**Combination Drain and Breather** *Exe - IP66 - supplied with entry thread seal and locknut*		
	M20 male thread in Polyamide	**DBE20P**	**—**
	M20 male thread in Brass	**DBE20B**	**—**
	M20 male thread in Stainless Steel	**DBE20S**	**—**
	**Feed-Thru Earth Stud Terminal** *Exe - IP66 – supplied with weatherproof seal and green/yellow earth conductor — 300 mm (11.81") length*		
	M20 with M5 earth and 2.5 mm^2 (0.004 in^2) conductor	**PREESTM20**	**NPREESTM20**

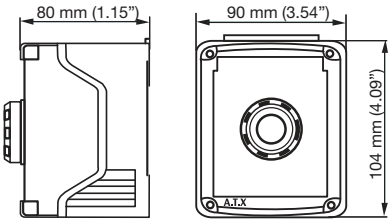
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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Polyamide Control Station Dimensions

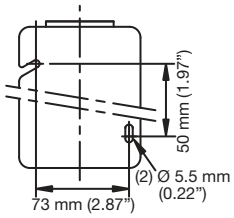
Increased Safety

For use in IEC governed hazardous areas. Polyamide is not recognized for use in any NEC/CEC governed hazardous areas.

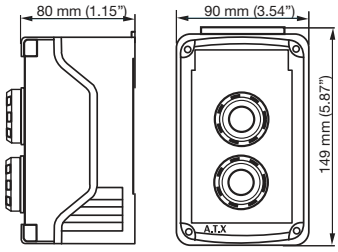
Dimensions in Millimeters (Inches)



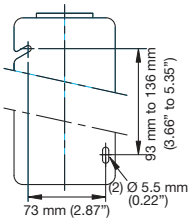
Size 1 Enclosure



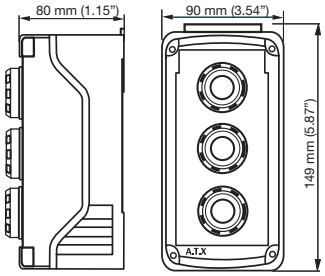
Size 1 Mounting/Fixing Details



Size 2 Enclosure



Size 2 and 3 Mounting/Fixing Details



Size 3 Enclosure

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Unicode® 2 Series Customized Control Stations

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)

NBR IEC (Polyamide):
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/ Ex tb IIIC Db
IP66

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb/Ex tb IIIC Db
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb/Ex tb IIIC Db
IP66

Applications

- Local control stations and motor control stations for use in hazardous areas covering the broadest possible range of applications.
- Control of equipment at:
  - — Power plants
  - — Chemical and petrochemical plants
  - — Petroleum refineries
  - — Reverse osmosis plants
  - — Pulp and paper processing plants
  - — Various industrial applications
- Push buttons and selector switches are used in conjunction with contactors or magnetic starters for remote control of motors in hazardous locations. They provide circuit control and/or selection.
- Pilot lights provide visual assurance that an electrical function is being performed at a remote or hazardous location.
- For use in washdown areas.

Features

- Employs Ex de method of protection which eliminates the need for external seals.
- Operators include push buttons, illuminated push buttons, selector switches, control and load break switches and LED pilot lights.
- Pilot light employs high intensity single LED with lifetime of 100,000 hours that can be used at:
  - — 12 Vac to 254 Vac 50/60 Hz
  - — 12 Vdc to 60 Vdc
- Up to 3 contact blocks per actuator can be used.
- Contact block technical data:
  - — IEC rated operating voltage (Ue): 500 Vac – 110 Vdc
  - — IEC switching capacity:
    - – AC 12: 16 Amps/400 Vac
    - – AC 14: 10 Amps/400 Vac
    - – AC 15: 6 Amps/500 Vac
    - – DC 13: 2 Amps/24 Vdc and 1 Amp/110 Vdc
  - — NEMA switching capacity: A600: 10 Amp/600 Vac
- Selector switch technical data:
  - — IEC rated operating voltage: 690 Vac
  - — IEC rated operating current: maximum 16 Amps
  - — IEC switching capacity:
    - – AC1: 16 Amps/690 Vac
    - – AC15: 16 Amps/415 Vac
    - – AC3: 8 Amps/500 Vac
    - – AC3: 4 Amps/690 Vac
    - – AC3: 16 Amps/690 Vac
    - – DC1: 10 Amps/24 Vdc
    - – DC1: 6 Amps/60 Vdc
    - – DC1: 6 Amp/110 Vdc (2 contacts wired in series)
    - – DC1: 6 Amp/220 Vdc (3 contacts in series)
  - — NEMA switching capacity: A600: 10 Amps/600 Vac
- Enclosures are rated for IP66 with firmly secured gasket.
- Operators and contact blocks are spaced so as to have easy and ample space for wiring.
- Wide selection of termination methods available.
- Choice of DIN rail mounted high performance contact block suitable for low intensity (less than 5mA).
- TS35 rail mounted components held securely in place during operation and easily removed for service.
- Brass Inserts are provided for TS35 DIN rails or mounting plate to be installed inside the enclosure.



Polyester



Polyamide



Stainless Steel



Aluminum

- Captive, corrosion resistant stainless steel cover screws.

Standard Materials

- Polyamide
  - — Body, cover, cable gland and blanking plug: polyamide, black finish
- Fiberglass Reinforced Polyester (FRP)
  - — Body and cover: fiberglass reinforced polyester, black finish
- Stainless Steel
  - — Body, cover and cover screws: 316L stainless steel, natural finish
- Aluminum
  - — Body and cover: aluminum with gray epoxy powder coating.
- Cable gland and blanking plug: polyamide
- Cover screws for 316L stainless steel or aluminum body: 304 stainless steel
- Cover screws for fiberglass reinforced polyester body: 316 stainless steel
- Optional nameplates: stainless steel

Accessories

- Key for changing actuator blocks.
- Guard for mushroom head actuator.
- Padlockable guard.
- M5 and M6 earth stud.
- Combination drain and breather available in brass, polyamide and stainless steel.

Options

- Nameplates: Lamacoid with different color combinations.
- Padlocking facility at left, center, right or any position on selector switches.
- Padlocking facility for momentary and maintained push buttons.

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Customized Control Stations

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)

NBR IEC (Polyamide):
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/ Ex tb IIIC Db
IP66

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb/Ex tb IIIC Db
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb/Ex tb IIIC Db
IP66

ATEX/IECEx Certifications and Compliances

✓ Polyamide
- — Certification Type PCe
- — Gas: Zone 1 and 2
  - – T Rating: T6
- — Dust: Zone 21 and 22
  - — Surface Temperature: T167 °C to T75 °C (T333 °F to T167 °F)
  - — Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- — CE Declaration of Conformity: 50221
- — ATEX Certificate: LCIE 00 ATEX 6047
- — IEC Certificate: LCIE Ex 00.017
- — Impact Resistance (shock): IK09

✓ Fiberglass Reinforced Polyester (FRP)
- — Certification Type CSPe
- — Gas: Zone 1 and 2
  - – T Rating: T6
- — Dust: Zone 21 and 22
  - – Surface Temperature: T75 °C (T167 °F)
- — Ambient Temperature: -55 °C to +70 °C (-67 °F to +158 °F)
- — CE Declaration of Conformity: 52084
- — ATEX Certificate: LCIE 00 ATEX 3032X
- — IEC Certificate: IECEx LCI 09.0016X
- — Impact Resistance (shock): IK10

✓ Stainless Steel
- — Certification Type JBe
- — Gas: Zone 1 and 2
  - – T Rating: T5 to T6
- — Dust: Zone 21 and 22
  - – Surface Temperature: T80 °C to T95 °C (T176 °F to T203 °F)
- — Ambient Temperature: -50 °C to +70 °C (-58 °F to +158 °F)
- — CE Declaration of Conformity: 50232
- — ATEX Certificate: LCIE 02 ATEX 6118X
- — IECEx Certificate: LCI 11.0008X
- — Impact Resistance (shock): IK10

✓ Aluminum
- — Certification Type PCe
- — Gas: Zone 1 and 2
  - – T Rating: T6
- — Dust: Zone 21 and 22
  - – Surface Temperature: T75 °C (T167 °F)
- — CE Declaration of Conformity: 50221
- — ATEX Certificate: LCIE 02 ATEX 6047
- — IEC Certificate: LCIE Ex 00.017
- — Impact Resistance (shock): IK10

- Gas: Zone 1 and 2
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
  - — ATEX/IEC Protection: Ex de IIC/Ex demb IIC
- Dust: Zone 21 and 22
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
  - — ATEX/IEC Protection: Ex tD A21
- Other Certifications: GOST R
- Ingress Protection (solid and liquid): IP66
- Ex standards :EN/IEC 60079-0; 60079-1; 60079-7; 60079-18; 61241-0; 61241-1
- Product standards: EN/IEC 60947-1; 60947-5
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances ①

✓ Polyamide
- — Certification Type PCe
- — Gas: Zones 1 and 2
  - – IEC Marking: Ex de IIC Gb/Ex demb IIC Gb
  - – T Rating: T5/T6
- — Dust, Zones 21 and 22
  - – IEC Marking: Ex tb IIIC Db
  - – Ambient Temperature: -55 °C to +60 °C (-67 °F to +140 °F)
- — INMETRO Certificate: BVC 11.0640-X
- — Ingress Protection: IP66
- — Impact Resistance (shock): IK09
- — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-31

✓ Fiberglass Reinforced Polyester (FRP)
- — Certification Type CSPe
- — Gas: Zones 1 and 2
  - – IEC Marking: Ex e II/Ex de IIC/Ex deia IIC/Ex demb IIC T6 Gb
  - – T Rating: T5/T6
- — Dust, Zones 21 and 22
  - – IEC Marking: Ex tb IIIC Db
- — Ambient temperature: -55 °C to +60°C (-67 °F to +140 °F)
- — INMETRO Certificate: BVC 11.0637-X
- — Ingress Protection: IP66
- — Impact Resistance (shock): IK10
- — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-31

✓ Stainless Steel
- — Certification Type JBe
- — Gas: Zones 1 and 2
  - – T Rating: T5/T6
  - – IEC Marking: Ex e II/Ex de II/Ex eia ou eib IIC Gb
- — Dust, Zones 21 and 22
  - – IEC Marking: Ex tb IIIC Db
- —Ambient Temperature: -55 °C to +60 °C (-67 °F to +140 °F)
- —INMETRO Certificate: BVC 11.0418-X
- —Ingress Protection: IP66
- —Impact Resistance (shock): IK10
- —Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-31

- INMETRO Ordinance: 179
- Other Standards: ABNT NBR IEC 60529 (IP)

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Unicode® 2 Series Customized Control Stations

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)

NBR IEC (Polyamide):
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/ Ex tb IIIC Db
IP66

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb/Ex tb IIIC Db
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb/Ex tb IIIC Db
IP66

Catalog Numbering Guide - Unicode 2 Enclosures

U | **2** | **3** | **W2** | **11** | **A1SA00G1SA00** | **T6**

Series:
U - ATEX/IECEx Certified Unicode 2 Series Enclosures
NU - NBR IEC Certified Unicode 2 Series Enclosures

Material Type and Mounting:
2 - Polyester rail mounted
4 - Polyamide rail mounted
6 - Stainless steel rail mounted
8 - Aluminum rail mounted

Size:
1 - Size 1
2 - Size 2
3 - Size 3

Entry Configuration:
Bottom, Top and Feed Thru available
See below

Cover Layout:
Size 1, 2 and 3 available
See following page

Devices:
1 to 6 devices per unit
Actuator, Pilot Light, Contact Blocks and Accessories
See following pages

Options:
T6 - M6 earth stud
T8 - M8 earth stud
T1 - M10 earth stud
P5 - M5 earth stud for polyamide or polyester, M25 entry required
P6 - M6 earth stud for polyamide or polyester, M20 entry required
EP - Brass earth continuity plate (2 x M20 for polyamide box)

Entry Configuration

	NPT					Metric			
	1/2”	**2 x 1/2”**	**3/4”**	**2 x 3/4”**	**1”**	**M20**	**2 x M20 ②**	**M25**	**2 x M25**
Bottom	Z1	Z2	Z3	Z4	Z5	W1	W2	W3	W4
Top	Y1	Y2	Y3	Y4	Y5	V1	V2	V3	V4
Feed Thru	X1	X2	X3	X4	X5	U1	U2	U3	U4

① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Polyamide versions: Only 2 x M20 available at bottom.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Customized Control Stations

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

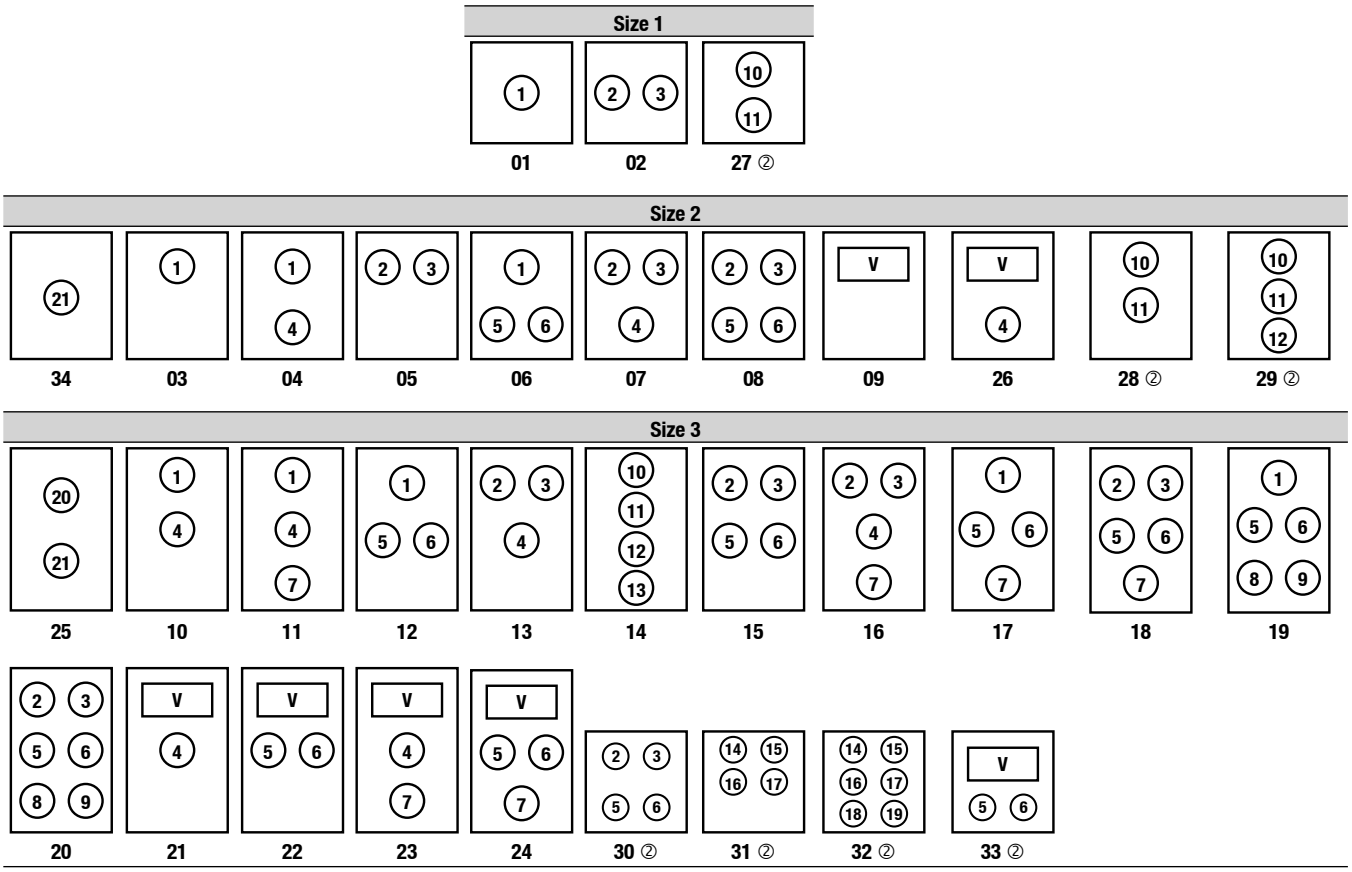
ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)

NBR IEC (Polyamide):
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/ Ex tb IIIC Db
IP66

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb/Ex tb IIIC Db
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb/Ex tb IIIC Db
IP66

Drilled Cover Layout



Device Examples with Options

Description	
Push button with 1 NO contact and green (unmarked) insert	**A5G**
Push button with 1 NC contact, padlocking device and red (unmarked) insert	**A92R**
Push button with 2 NO contacts and START green insert	**A103**
Push button with 2 NO contacts, padlocking device and START green insert	**A1203**
Push button with 2 NO contacts, padlocking device, START green insert and DOWN small legend plate	**A1203SA10**
Red push-pull emergency stop mushroom head with 2 NC contacts and padlocking device	**D23**
Red push-pull emergency stop mushroom head with 1 NO + 1 NC contacts and protective guard	**D31**
Red push-pull emergency stop mushroom head with 1 NO + 1 NC contacts and padlocking device	**D33**
Green illuminated push button with 1 NO contact	**LG5**
Green illuminated push button with 2 NO contacts, padlocking device and START green insert	**LG1203**

Description	
Green pilot light	**PG**
Red pilot light with STOP large legend plate	**PRLA08**
2-position rotary actuator with 2 NO contacts and padlocking device	**H12**
2-position rotary actuator with 2 NO contacts and HAND—AUTO small legend plate	**H1SH05**
3-position I—O—II rotary actuator (I + II maintained) with 2 NO contacts	**J1**
3-position I—O—II rotary actuator (I + II maintained) with 2 NO contacts and FORWARD—OFF—REVERSE large legend plate	**J1LJ06**
2-position 2-pole switch	**US32**
2-position 2-pole switch with 0—I large legend plate	**US32 LH01**
2-position 4-pole switch	**US35**
2-position 4-pole switch with 0—I large legend plate	**US35LH01**
2 position 2-pole selector switch with STOP—START large legend plate	**US30LH04**
3 position 2-pole selector switch with OFF—0—ON large legend plate	**US31LJ02**

① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Stainless steel version only.

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Unicode® 2 Series Customized Control Station Functions

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)

NBR IEC (Polyamide):
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/ Ex tb IIIC Db
IP66

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb/Ex tb IIIC Db
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb/Ex tb IIIC Db
IP66

Devices	
Push Buttons, Momentary Contacts (3 maximum)	
With 2 NO momentary contacts	**A1**
With 2 NC momentary contacts	**A2**
With 1 NO + 1 NC momentary contacts	**A3**
With 2 NO + 1 NC momentary contacts	**A4**
With 1 NO momentary contact	**A5**
With 1 NO + 2 NC momentary contacts	**A6**
With 3 NO momentary contacts	**A7**
With 3 NC momentary contacts	**A8**
With 1 NC momentary contact	**A9**
Guard and Padlocking Devices	
Guard for mushroom head push button	**1**
Padlocking device for push button and rotary actuator	**2**
Padlocking device for mushroom head push button	**3**
Inserts for Push Buttons and Illuminated Push Buttons	
Green (unmarked)	**G**
Red (unmarked)	**R**
Yellow (unmarked)	**Y**
White (unmarked)	**W**
Blue (unmarked)	**B**
Black (unmarked)	**N**
ON (green)	**01**
OFF (red)	**02**
START (green)	**03**
STOP (red)	**04**
MARCHE (green)	**05**
ARRET (red)	**06**
I (green)	**07**
O (red)	**08**

Legend Plates		
Legend Plates for Push Buttons and Pilot Lights *(Located Above Device)*		
Text	**Small**	**Large**
Blank	**SA00**	**LA00**
ON	**SA01**	**LA01**
OFF	**SA02**	**LA02**
FORWARD	**SA03**	**LA03**
REVERSE	**SA04**	**LA04**
JOG	**SA05**	**LA05**
RUN	**SA06**	**LA06**
START	**SA07**	**LA07**
STOP	**SA08**	**LA08**
UP	**SA09**	**LA09**
DOWN	**SA10**	**LA10**
FAST	**SA11**	**LA11**
SLOW	**SA12**	**LA12**
RAISE	**SA13**	**LA13**
LOWER	**SA14**	**LA14**
OPEN	**SA15**	**LA15**
CLOSE	**SA16**	**LA16**
LOW	**SA17**	**LA17**
HIGH	**SA18**	**LA18**
TEST	**SA19**	**LA19**
RESET	**SA20**	**LA20**

Legend Plates (Continued)		
Legend Plates for Push Buttons and Pilot Lights *(Located Above Device)*		
EMERGENCY STOP	**SA21**	**LA21**
MARCHE	**SA22**	**LA22**
ARRET	**SA23**	**LA23**
ARRET D'URGENCE	**SA24**	**LA24**
HAUT	**SA25**	**LA25**
BAS	**SA26**	**LA26**

Devices	
Illuminated Push Buttons, Momentary Contacts (2 maximum)	
Green with 2 NO momentary contacts	**LG1**
Green with 2 NC momentary contacts	**LG2**
Green with 1 NO + 1 NC momentary contacts	**LG3**
Green with 1 NO momentary contacts	**LG5**
Green with 1 NC momentary contacts	**LG9**
Red with 2 NO momentary contacts	**LR1**
Red with 2 NC momentary contacts	**LR2**
Red with 1 NO + 1 NC momentary contacts	**LR3**
Red with 1 NO momentary contacts	**LR5**
Red with 1 NC momentary contacts	**LR9**
*For other colors replace 2nd letter to **B** for Blue, **W** for White and **Y** for Yellow. Example: Blue — **LB1***	

Device Options	
Push buttons complete with key removable in both positions (2 contacts maximum)	
With 2 NO contacts	**E1**
With 2 NC contacts	**E2**
With 1 NO + 1 NC contacts	**E3**
With 1 NO contact	**E5**
With 1 NC contact	**E9**
Push buttons complete with key removable in ON position (2 contacts maximum)	
With 2 NO contacts	**F1**
With 2 NC contacts	**F2**
With 1 NO + 1 NC contacts	**F3**
With 1 NO contact	**F5**
With 1 NC contact	**F9**
Push buttons complete with key removable in OFF position (2 contacts maximum)	
With 2 NO contacts	**G1**
With 2 NC contacts	**G2**
With 1 NO + 1 NC contacts	**G3**
With 1 NO contact	**G5**
With 1 NC contact	**G9**

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Customized Control Station Functions

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)

NBR IEC (Polyamide):
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/ Ex tb IIIC Db
IP66

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb/Ex tb IIIC Db
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb/Ex tb IIIC Db
IP66

Device Options	
Black Mushroom Head Push Buttons, Momentary Contacts (3 maximum)	
With 2 NO momentary contacts	**B1**
With 2 NC momentary contacts	**B2**
With 1 NO + 1 NC momentary contacts	**B3**
With 2 NO + 1 NC momentary contacts	**B4**
With 1 NO momentary contact	**B5**
With 1 NO + 2 NC momentary contacts	**B6**
With 3 NO momentary contacts	**B7**
With 3 NC momentary contacts	**B8**
With 1 NC momentary contact	**B9**

Devices	
Red Mushroom Head Push Buttons, Momentary Contacts (3 maximum)	
With 2 NO momentary contacts	**R1**
With 2 NC momentary contacts	**R2**
With 1 NO + 1 NC momentary contacts	**R3**
With 2 NO + 1 NC momentary contacts	**R4**
With 1 NO momentary contact	**R5**
With 1 NO + 2 NC momentary contacts	**R6**
With 3 NO momentary contacts	**R7**
With 3 NC momentary contacts	**R8**
With 1 NC momentary contact	**R9**
Red Mushroom Head Emergency Stop Buttons, Maintained (3 contacts maximum)	
Push-pull version with 2 NO maintained contacts	**D1**
Push-pull version with 2 NC maintained contacts	**D2**
Push-pull version with 1 NO + 1 NC maintained contacts	**D3**
Push-pull version with 2 NO + 1 NC maintained contacts	**D4**
Push-pull version with 1 NO maintained contact	**D5**
Push-pull version with 1 NO + 2 NC maintained contacts	**D6**
Push-pull version with 3 NO maintained contacts	**D7**
Push-pull version with 3 NC maintained contacts	**D8**
Push-pull version with 1 NC maintained contact	**D9**
Red Mushroom Head Emergency Stop Buttons, Maintained Contacts (2 maximum)	
Key to release with 2 NO maintained contacts	**C1**
Key to release with 2 NC maintained contacts	**C2**
Key to release with 1 NO + 1 NC maintained contacts	**C3**
Key to release with 1 NO maintained contact	**C5**
Key to release with 1 NC maintained contact	**C9**
LED Pilot Lights	
Blue color	**PB**
Green color	**PG**
Red color	**PR**
White color	**PW**
Yellow color	**PY**

Devices	
2 Positions O-I Rotary Actuator (O and I Maintained)	
With 2 NO maintained contacts	**H1**
With 2 NC maintained contacts	**H2**
With 1 NO + 1 NC maintained contacts	**H3**
With 2 NO + 1 NC maintained contacts	**H4**
With 1 NO maintained contact	**H5**
With 1 NO + 2 NC maintained contacts	**H6**
With 3 NO maintained contacts	**H7**
With 3 NC maintained contacts	**H8**
With 1 NC maintained contact	**H9**

Legend Plates for 2-Position Selector Switches
(Located Above Device)

Text	Small	Large
O—I	**SH01**	**LH01**
ON—OFF	**SH02**	**LH02**
START—STOP	**SH03**	**LH03**
STOP—START	**SH04**	**LH04**
HAND—AUTO	**SH05**	**LH05**
MANU—AUTO	**SH06**	**LH06**
FORWARD—REVERSE	**SH07**	**LH07**
REMOTE—LOCAL	**SH08**	**LH08**
MARCHE—ARRET	**SH09**	**LH09**

3 Positions I-O-II Rotary Actuator (I and II maintained)	
With 2 NO maintained contacts	**J1**
With 2 NC maintained contacts	**J2**
With 1 NO + 1 NC maintained contacts	**J3**
With 2 NO + 1 NC maintained contacts	**J4**
With 1 NO + 2 NC maintained contacts	**J6**
With 3 NO maintained contacts	**J7**
With 3 NC maintained contacts	**J8**
3 Positions I-O-II Rotary Actuator (I and II spring-return to O)	
With 2 NO contacts	**K1**
With 2 NC contacts	**K2**
With 1 NO + 1 NC contacts	**K3**
With 2 NO + 1 NC contacts	**K4**
With 1 NO + 2 NC contacts	**K6**
With 3 NO contacts	**K7**
With 3 NC contacts	**K8**
3 Positions I-O-II Rotary Actuator (I Maintained and II Spring-Return to O)	
With 2 NO contacts	**M1**
With 2 NC contacts	**M2**
With 1 NO + 1 NC contacts	**M3**
With 2 NO + 1 NC contacts	**M4**
With 1 NO + 2 NC contacts	**M6**
With 3 NO contacts	**M7**
With 3 NC contacts	**M8**
3 Positions I-O-II Rotary Actuator (I Spring-Return to O + II Maintained)	
With 2 NO contacts	**N1**
With 2 NC contacts	**N2**
With 1 NO + 1 NC contacts	**N3**
With 2 NO + 1 NC contacts	**N4**
With 1 NO + 2 NC contacts	**N6**
With 3 NO contacts	**N7**
With 3 NC contacts	**N8**

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Unicode® 2 Series Customized Control Station Functions

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)

NBR IEC (Polyamide):
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/ Ex tb IIIC Db
IP66

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb/Ex tb IIIC Db
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb/Ex tb IIIC Db
IP66

Devices	
16A Selector Switches ② *Other contact arrangements are available, contact your local sales representative.*	
2 position 2-pole Selector switch	**US30**
3 position 2-pole Selector switch	**US31**
2 position 2-pole switch	**US32**
3 position 2-pole Selector switch with spring return from 135° to 90°	**US33**
3 position 2-pole Selector switch with spring return from 45° to 90°	**US34**
2 position 4-pole switch	**US35**
3 position 4-pole Selector switch	**US36**
2 position 4-pole Selector switch	**US37**
3 position 3-pole Selector switch with spring return from 45° to 90°	**US38**
3 position 3-pole Selector switch with spring return from 135° to 90°	**US39**

Legend Plates for 3-Position Selector Switches
(Located Above Device)

Text	Small	Large
I—O—II	**SJ01**	**LJ01**
OFF—O—ON	**SJ02**	**LJ02**
START—NORMAL—STOP	**SJ03**	**LJ03**
HAND—OFF—AUTO	**SJ04**	**LJ04**
MANUAL—O—AUTO	**SJ05**	**LJ05**
FORWARD—OFF—REVERSE	**SJ06**	**LJ06**
LOCAL—REMOTE—AUTO	**SJ07**	**LJ07**
LOCAL—O—REMOTE	**SJ08**	**LJ08**
MARCHE—NORMAL—ARRET	**SJ09**	**LJ09**

Devices	
Ammeters 48 x 48 mm	
1A C.T.and 3 F.L.C. with 0-1-3 scale	**VA13**
1A C.T. and 5 F.L.C. with 0-1-5 scale	**VA15**
1A C.T. and 6 F.L.C. with 0-1-6 scale	**VA16**
5A C.T. and 3 F.L.C. with 0-1-3 scale	**VA53**
5A C.T. and 5 F.L.C. with 0-1-5 scale	**VA55**
5A C.T. and 6 F.L.C. with 0-1-6 scale	**VA56**
Box Options	
Earth Stud	
M6 earth stud	**T6**
M8 earth stud	**T8**
M10 earth stud	**T1**
M5 earth stud for polyamide or polyester, M20 entry required	**P5**
M6 earth stud for polyamide or polyester, M25 entry required	**P6**
Earth Continuity Plate	
Brass	**EP**
Plug	
Cover blanking plug	**BP**

① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.
② Additional configurations available. See Unicode 2 Series 16 Amp Switches in the Component and Accessories section. Choose the contact arrangement, then add the last four digits of the switch part number in the custom configured control station catalog number.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Customized Control Station Ordering Example

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)

NBR IEC (Polyamide):
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/ Ex tb IIIC Db
IP66

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb/Ex tb IIIC Db
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb/Ex tb IIIC Db
IP66

Ordering Example:



Polyester Control Station

- Size 3 with 3 vertical actuators.
- 2 x M20 entries at bottom with brass earth continuity plate.
- Without earth stud.
- Without cable glands and plugs.
- White self-adhesive nameplate with black lettering.
- Text: MOTOR 4
- Position 1: Green pilot light without legend plate.
- Position 2: Green start push button with 2 x NO contacts.
- Green start insert without legend plate and guard.
- Position 7: Emergency stop push-pull mushroom head with 2 x NC contacts without legend plate and guard.

Part No.:
U23W211 PG A103 D2

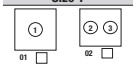
Polyester Customized Control Station Specifications – Type U2

Polyester Customized Control Station Specifications — Type: U4

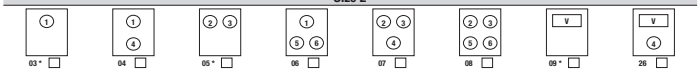
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Contact: _____
Phone/Fax: _____
Email: _____ Project: _____

Box Definition

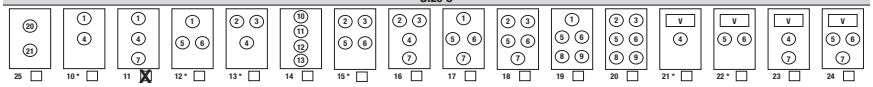
Size 1



Size 2

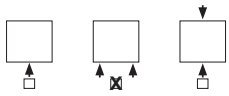


Size 3



** Terminal block available as option. (maximum: 10 x terminals 2.5mm2)*

Entry Position



Entries (clearance hole)
☒ M20
☐ M25 ☐ 3/4" NPT (via hub)

Earth Continuity Plate
Brass Earth Plate as Standard
☐ Stainless Steel Earth Plate

Earth Stud (At Bottom)
☒ Without
☐ T6 Stainless Steel Earth Stud
☐ T8 Stainless Steel Earth Stud

Location
☐ A ☐ B ☐ C ☐ D ☐ A, B, C, D

Cable Glands
☒ Without
☐ Type: Quantity:

Plugs
☒ Without
☐ Type: Quantity:

Nameplate

Option	Type	Color
☐ Without ☐ With (complete Type and color)	☒ 58 x 18 Self-Adhesive Laminated Plastic ☐ 65 x 18 Screw On Laminated Plastic ☐ 65 x 18 Screw On in Stainless steel *(available with black lettering only)* Text (1 line):	☒ White (black letters) ☐ Blue (white letters) ☐ Yellow (black letters) ☐ Black (white letters) ☐ Red (white letters) ☐ Green (white letters)

Functions

Position	Actuator	Contacts	Insert	Legend Plate	Guard

*** Terminal Blocks (optional)** — **Type** — **Quantity (10 maximum)**
Option for Box No. 03-05-09-10-12-13-15-21-22 only — 2.5 mm²

Additional Instructions: _____

The following inquiry forms should be filled out and sent to your local Appleton/ATX Representative.

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Unicode® 2 Series Customized Control Station Specifications — Polyamide

Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC Gb/Ex demb IIC Gb/
Ex tb IIIC Db
IP66

Polyamide Customized Control Station Specifications — Type: U4

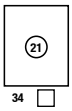
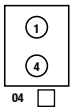
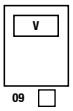
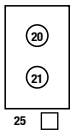
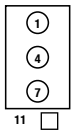
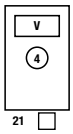
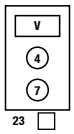
Company Name: _____ Address: _____

Contact: _____

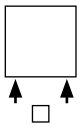
Phone/Fax: _____

Email: _____ Project: _____

Box Definition

Size 1	Size 2			Size 3			
							
01 ☐	34 ☐	04 ☐	09 ☐	25 ☐	11 ☐	21 ☐	23 ☐

Entry Position



Entries — Clearance Hole

☐ M20

Earth Continuity Plate

☐ Brass Earth Plate

☐ Stainless Steel Earth Plate

Earth Stud — At Bottom

☐ Without

☐ T6 Stainless Steel Earth Stud (via M20 entry)

Cable Glands

☐ Without

☐ Type: Quantity:

Plugs

☐ Without

☐ Type: Quantity:

Nameplate

Option	Type	Color	
☐ Without	☐ 58 x 18 mm (2.28 x 0.71") Self-Adhesive Laminated Plastic	☐ White (black letters)	☐ Blue (white letters)
☐ With (complete Type and color)		☐ Yellow (black letters)	☐ Black (white letters)
		☐ Red (white letters)	☐ Green (white letters)

Text (1 line): _____

Functions

Position	Actuator	Contacts	Insert	Legend Plate	Guard

Additional Instructions: _____

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Unicode® 2 Series Customized Control Station Specifications — Polyester

Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb/Ex tb IIIC Db
IP66

Polyester Customized Control Station Specifications — Type: U4

Company Name: _____ Address: _____

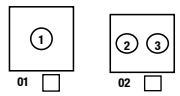
Contact: _____

Phone/Fax: _____

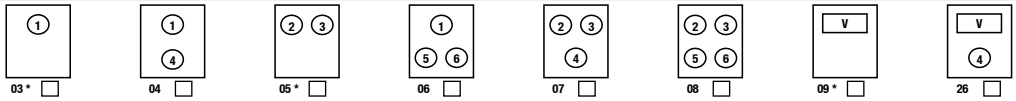
Email: _____ Project: _____

Box Definition

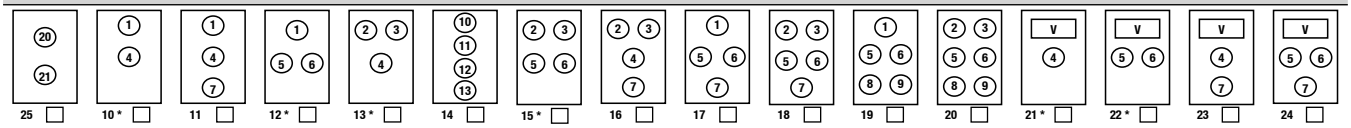
Size 1



Size 2

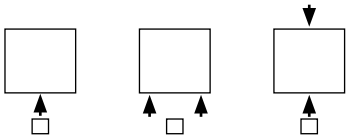


Size 3



** Terminal block available as option. (maximum: 10 x terminals 2.5 mm²)*

Entry Position



Entries — Clearance Hole

☐ M20
☐ M25 ☐ 3/4" NPT (via hub)

Earth Continuity Plate

Brass Earth Plate as Standard
☐ Stainless Steel Earth Plate

Earth Stud — At Bottom

☐ Without
☐ T6 Stainless Steel Earth Stud
☐ T8 Stainless Steel Earth Stud

Location

☐ A ☐ B ☐ C ☐ D ☐ A, B, C, D

Cable Glands

☐ Without
☐ Type: Quantity:

Plugs

☐ Without
☐ Type: Quantity:

Nameplate

Option	Type	Color
☐ Without	☐ 58 x 18 mm (2.28 x 0.71") Self-Adhesive Laminated Plastic	☐ White (black letters) ☐ Blue (white letters)
☐ With (complete Type and color)	☐ 65 x 18 mm (2.56 x 0.71") Screw On Laminated Plastic	☐ Yellow (black letters) ☐ Black (white letters)
	☐ 65 x 18 mm (2.56 x 0.71") Screw On in Stainless steel *(available with black lettering only)*	☐ Red (white letters) ☐ Green (white letters)
	Text (1 line):	

Functions

Position	Actuator	Contacts	Insert	Legend Plate	Guard

* Terminal Blocks (optional)	Type	Quantity (10 maximum)
Option for Box No. 03-05-09-10-12-13-15-21-22 only	2.5 mm²	

Additional Instructions: _____

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Unicode® 2 Series Customized Control Station Specifications — Stainless Steel
Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

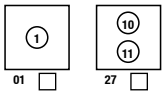
NBR IEC:
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb/Ex tb IIIC Db
IP66

Stainless Steel Customized Control Station Specifications — Type: U6

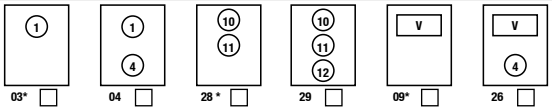
Company Name: _____ Address: _____
Contact: _____
Phone/Fax: _____
Email: _____ Project: _____

Box Definition

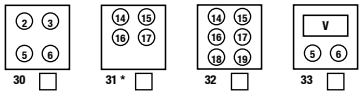
Size 1



Size 2

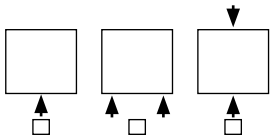


Size 3



** Terminal block available as option. (maximum: 10 x terminals 2.5 mm²)*

Entry Position



Entries — Clearance Hole
- ☐ M20
- ☐ M25
- ☐ 3/4" NPT (via hub)

Earth Stud — At Bottom
T6 Stainless Steel Earth Stud as Standard
- ☐ T8 Stainless Steel Earth Stud

Location
☐ A ☐ B ☐ C ☐ D ☐ A, B, C, D

Cable Glands
- ☐ Without
- ☐ Type: Quantity:

Plugs
- ☐ Without
- ☐ Type: Quantity:

Nameplate

Option	Type	Color
☐ Without ☐ With (complete Type and color)	☐ 58 x 18 mm (2.28 x 0.71") Self-Adhesive Laminated Plastic ☐ 65 x 18 mm (2.56 x 0.71") Screw On Laminated Plastic ☐ 65 x 18 mm (2.56 x 0.71") Screw On in Stainless steel *(available with black lettering only)* Text (1 line):	☐ White (black letters) ☐ Blue (white letters) ☐ Yellow (black letters) ☐ Black (white letters) ☐ Red (white letters) ☐ Green (white letters)

Functions

Position	Actuator	Contacts	Insert	Legend Plate	Guard

* Terminal Blocks (optional)	Type	Quantity (10 maximum)
Option for Box No. 03-09-28-31 only	2.5 mm²	

Additional Instructions: _____

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Customized Control Station Specifications — Aluminum ①

Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66

Aluminum Customized Control Station Specifications — Type: U8

Company Name: _____ Address: _____

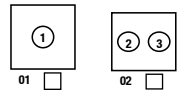
Contact: _____

Phone/Fax: _____

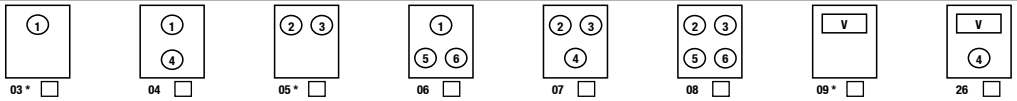
Email: Project:

Box Definition

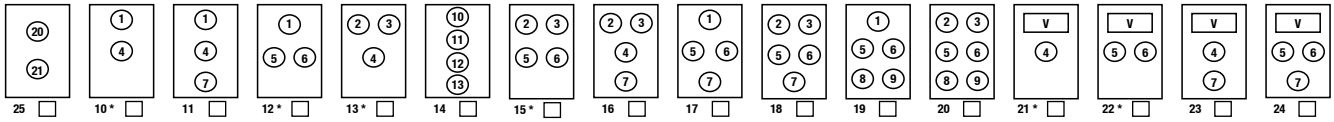
Size 1



Size 2

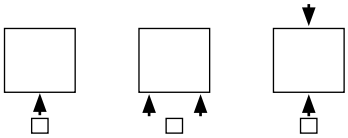


Size 3



** Terminal block available as option. (maximum: 10 x terminals 2.5 mm²)*

Entry Position



Entries — Clearance Hole

☐ M20
☐ M25
☐ 3/4" NPT (via hub)

Earth Stud — At Bottom

T5 External Earth Stud as Standard
☐ T6 Stainless Steel Earth Stud
☐ T8 Stainless Steel Earth Stud

Location

☐ A ☐ B ☐ C ☐ D ☐ A, B, C, D

Cable Glands

☐ Without
☐ Type: Quantity:

Plugs

☐ Without
☐ Type: Quantity:

Nameplate

Option	Type	Color
☐ Without ☐ With (complete Type and color)	☐ 58 x 18 mm (2.28 x 0.71") Self-Adhesive Laminated Plastic ☐ 65 x 18 mm (2.56 x 0.71") Screw On Laminated Plastic ☐ 65 x 18 mm (2.56 x 0.71") Screw On in Stainless steel *(available with black lettering only)* Text (1 line):	☐ White (black letters) ☐ Blue (white letters) ☐ Yellow (black letters) ☐ Black (white letters) ☐ Red (white letters) ☐ Green (white letters)

Functions

Position	Actuator	Contacts	Insert	Legend Plate	Guard

* Terminal Blocks (optional)	Type	Quantity (10 maximum)
Option for Box No. 03-05-09-10-12-13-15-21-22 only	2.5 mm²	

Additional Instructions: _____

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Unicode® 2 Series Pre–Drilled Control Stations

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)

NBR IEC (Polyamide):
Zone 1 and 2 – 21 and 22
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb
IP66

NBR IEC (FRP):
Zone 1 and 2
Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb
IP66

NBR IEC (Stainless Steel):
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb
IP66

Applications

- Local control stations and motor control stations for use in hazardous areas covering the broadest possible range of applications.
- Control of equipment at:
  - — Power plants
  - — Chemical and petrochemical plants
  - — Petroleum refineries
  - — Reverse osmosis plants
  - — Pulp and paper processing plants
  - — Various industrial applications
- For use in washdown areas.



Polyamide U43W211



Polyester U23W211

Features

- Enclosures are rated for IP66 with firmly secured gasket.
- Captive, corrosion resistant stainless steel cover screws.

Standard Materials

- Polyamide
  - — Body, cover, cable gland and blanking plug: polyamide, black finish
- Polyester
  - — Body and cover: fiberglass reinforced polyester, black finish.
- Stainless Steel
  - — Body, cover and cover screws: 316L stainless steel, natural finish
- Aluminum
  - — Body and cover: aluminum with gray epoxy powder coating.
- Cable gland and blanking plug: polyamide
- Cover screws for 316L stainless steel or aluminum body: 304 stainless steel
- Cover screws for fiberglass reinforced polyester body: 316 stainless steel
- Nameplate: white self-adhesive laminated plastic



Stainless Steel U62W229



Aluminum U83W211

ATEX/IECEx Certifications and Compliances

✓ Polyamide
- — Certification Type PCe
- — Gas: Zone 1 and 2
  - – T Rating: T6
- — Dust: Zone 21 and 22
  - — Surface Temperature: T167 °C to T75 °C (T333 °F to T167 °F)
  - — Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- — CE Declaration of Conformity: 50221
- — ATEX Certificate: LCIE 00 ATEX 6047
- — IEC Certificate: LCIE Ex 00.017
- — Impact Resistance (shock): IK09

✓ Fiberglass Reinforced Polyester (FRP)
- — Certification Type CSPe
- — Gas: Zone 1 and 2
  - – T Rating: T6
- — Dust: Zone 21 and 22
  - – Surface Temperature: T75 °C (T167 °F)
- — Ambient Temperature: -55 °C to +70 °C (-67 °F to +158 °F)
- — CE Declaration of Conformity: 52084
- — ATEX Certificate: LCIE 00 ATEX 3032X
- — IEC Certificate: IECEx LCI 09.0016X
- — Impact Resistance (shock): IK10

✓ Stainless Steel
- — Certification Type JBe
- — Gas: Zone 1 and 2
  - – T Rating: T5 to T6
- — Dust: Zone 21 and 22
  - – Surface Temperature: T80 °C to T95 °C (T176 °F to T203 °F)
- — Ambient Temperature: -50 °C to +70 °C (-58 °F to +158 °F)
- — CE Declaration of Conformity: 50232
- — ATEX Certificate: LCIE 02 ATEX 6118X
- — IECEx Certificate: LCI 11.0008X
- — Impact Resistance (shock): IK10

✓ Aluminum
- — Certification Type PCe
- — Gas: Zone 1 and 2
  - – T Rating: T6
- — Dust: Zone 21 and 22
  - – Surface Temperature: T75 °C (T167 °F)
- — CE Declaration of Conformity: 50221
- — ATEX Certificate: LCIE 02 ATEX 6047
- — IEC Certificate: LCIE Ex 00.017
- — Impact Resistance (shock): IK10

- Gas: Zone 1 and 2
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
  - — ATEX/IEC Protection: Ex de IIC/Ex demb IIC
- Dust: Zone 21 and 22
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
  - — ATEX/IEC Protection: Ex tD A21
- Other Certifications: GOST R
- Ingress Protection (solid and liquid): IP66

① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Pre–Drilled Control Stations

Increased Safety

Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

ATEX/IECEx:	NBR IEC (Polyamide):	NBR IEC (FRP):	NBR IEC (Stainless Steel):
Zone 1 and 2 – 21 and 22	*Zone 1 and 2 – 21 and 22*	*Zone 1 and 2*	*Zone 1 and 2*
Ⓔx II 2 GD	*Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb*	*Ex e II/Ex de IIC/Ex deia IIC/ Ex demb IIC Gb*	*Ex e II/Ex de II/Ex eia or eib IIC Gb*
Ex de IIC/Ex demb IIC/Ex tD A21 IP66 – IK09 (Polyamide), IK10 (FRP, Stainless Steel)	*IP66*	*IP66*	*IP66*

NBR IEC Brazilian Certifications and Compliances

✓ Polyamide
- — Certification Type PCe
- — Gas: Zones 1 and 2
  - – IEC Marking: Ex de IIC Gb/Ex demb IIC Gb
  - – T Rating: T5/T6
- — Dust, Zones 21 and 22
  - – IEC Marking: Ex tb IIIC Db
  - – Ambient Temperature: -55 °C to +60 °C (-67 °F to +140 °F)
- — INMETRO Certificate: BVC 11.0640-X
- — Ingress Protection: IP66
- — Impact Resistance (shock): IK09
- — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-31

✓ Fiberglass Reinforced Polyester (FRP)
- — Certification Type CSPe
- — Gas: Zones 1 and 2
  - – IEC Marking: Ex e II/Ex de IIC/Ex deia IIC/Ex demb IIC T6 Gb
  - – T Rating: T5/T6
- — Dust, Zones 21 and 22
  - – IEC Marking: Ex tb IIIC Db
- — Ambient temperature: -55 °C to +60°C (-67 °F to +140 °F)
- — INMETRO Certificate: BVC 11.0637-X
- — Ingress Protection: IP66
- — Impact Resistance (shock): IK10
- — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-31

✓ Stainless Steel
- — Certification Type JBe
- — Gas: Zones 1 and 2
  - – T Rating: T5/T6
  - – IEC Marking: Ex e II/Ex de II/Ex eia ou eib IIC Gb
- — Dust, Zones 21 and 22
  - – IEC Marking: Ex tb IIIC Db
- —Ambient Temperature: -55 °C to +60 °C (-67 °F to +140 °F)
- —INMETRO Certificate: BVC 11.0418-X
- —Ingress Protection: IP66
- —Impact Resistance (shock): IK10
- —Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-31

- INMETRO Ordinance: 179
- Other Standards: ABNT NBR IEC 60529 (IP)

① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.

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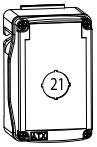
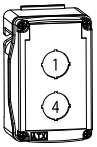
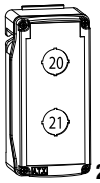
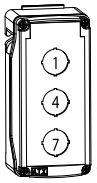
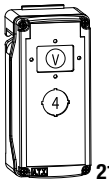
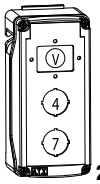
Unicode® 2 Series Pre–Drilled Polyamide Control Stations

Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

Polyamide Pre-drilled Boxes for Control Stations
Included: 1 white self-adhesive laminated plastic nameplate (black lettering), 2 clearance entries at bottom.

	Description/ Function	Entries	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number — 2 Bottom IECEx	Catalog Number — 2 Bottom NBR IEC
Size 1 Pre-Drilled Enclosures						
 01	For 1 actuator 1 vertical rail	M20	0.7 (1.54)	2.5 (152.56)	**U41W201**	**NU41W201**
Size 2 Pre-Drilled Enclosures						
 34	For 1 actuator 1 vertical rail	M20	0.9 (1.98)	2.5 (152.56)	**U42W234**	**NU42W234**
 04	For 2 actuators 1 vertical rail	M20	0.9 (1.98)	2.5 (152.56)	**U42W204**	**NU42W204**
Size 3 Pre-Drilled Enclosures						
 25	For 2 actuators 1 vertical rail	M20	1.0 (2.20)	2.5 (152.56)	**U43W225**	**NU43W225**
 11	For 3 actuators 1 vertical rail	M20	1.0 (2.20)	2.5 (152.56)	**U43W211**	**NU43W211**
 21	For 1 ammeter 48 x 48 + 1 actuator 1 vertical rail	M20	1.0 (2.20)	2.5 (152.56)	**U43W221**	**NU43W221**
 23	For 1 ammeter 48 x 48 + 2 actuators 1 vertical rail	M20	1.0 (2.20)	2.5 (152.56)	**U43W223**	**NU43W223**

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

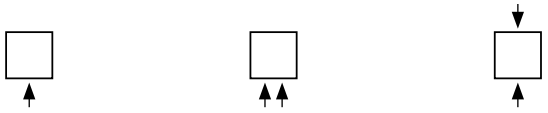
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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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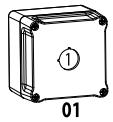
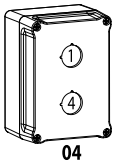
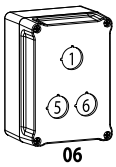
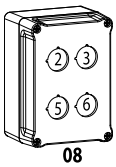
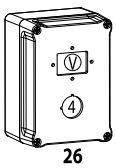
Unicode® 2 Series Pre–Drilled Polyester Control Stations
Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

Polyester Pre-Drilled Boxes for Control Stations
Included: 1 white self-adhesive laminated plastic nameplate (black lettering), 1 earth continuity brass plate, threaded entries.



	Description/ Function	Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number – 1 Bottom IECEx	Catalog Number – 1 Bottom NBR IEC	Catalog Number – 2 Bottom IECEx	Catalog Number – 2 Bottom NBR IEC	Catalog Number – Feed–Thru IECEx	Catalog Number – Feed–Thru NBR IEC
Size 1 Pre-Drilled Enclosures										
 01	For 1 actuator 1 horizontal rail	M20	0.8/ (1.76)	2.7 (164.76)	**U21W101**	**NU21W101**	**U21W201**	**NU21W201**	**U21U101**	**NU21U101**
		M25			**U21W301**	**NU21W301**	**U21W401**	**NU21W401**	**U21U301**	**NU21U301**
		3/4"			**U21Z301**	**NU21Z301**	**U21Z401**	**NU21Z401**	**U21X301**	**NU21X301**
 02	For 2 actuators 1 horizontal rail	M20	0.8/ (1.76)	2.7 (164.76)	**U21W102**	**NU21W102**	**U21W202**	**NU21W202**	**U21U102**	**NU21U102**
		M25			**U21W302**	**NU21W302**	**U21W402**	**NU21W402**	**U21U302**	**NU21U302**
		3/4"			**U21Z302**	**NU21Z302**	**U21Z402**	**NU21Z402**	**U21X302**	**NU21X302**
Size 2 Pre-Drilled Enclosures										
 04	For 2 actuators 1 vertical rail	M20	1.0 (2.20)	4.2 (256.30)	**U22W104**	**NU22W104**	**U22W204**	**NU22W204**	**U22U104**	**NU22U104**
		M25			**U22W304**	**NU22W304**	**U22W404**	**NU22W404**	**U22U304**	**NU22U304**
		3/4"			**U22Z304**	**NU22Z304**	**U22Z404**	**NU22Z404**	**U22X304**	**NU22X304**
 06	For 3 actuators 2 horizontal rails	M20	1.0 (2.20)	4.2 (256.30)	**U22W106**	**NU22W106**	**U22W206**	**NU22W206**	**U22U106**	**NU22U106**
		M25			**U22W306**	**NU22W306**	**U22W406**	**NU22W406**	**U22U306**	**NU22U306**
		3/4"			**U22Z306**	**NU22Z306**	**U22Z406**	**NU22Z406**	**U22X306**	**NU22X306**
 08	For 4 actuators 2 horizontal rails	M20	1.0 (2.20)	4.2 (256.30)	**U22W108**	**NU22W108**	**U22W208**	**NU22W208**	**U22U108**	**NU22U108**
		M25			**U22W308**	**NU22W308**	**U22W408**	**NU22W408**	**U22U308**	**NU22U308**
		3/4"			**U22Z308**	**NU22Z308**	**U22Z408**	**NU22Z408**	**U22X308**	**NU22X308**
 26	For 1 ammeter 48x48 +1 actuator 1 vertical rail	M20	1.0 (2.20)	4.2 (256.30)	**U22W126**	**NU22W126**	**U22W226**	**NU22W226**	**U22U126**	**NU22U126**
		M25			**U22W326**	**NU22W326**	**U22W426**	**NU22W426**	**U22U326**	**NU22U326**
		3/4"			**U22Z326**	**NU22Z326**	**U22Z426**	**NU22Z426**	**U22X326**	**NU22X326**

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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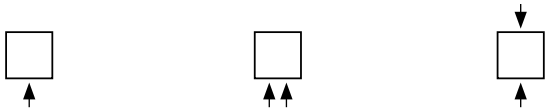
Unicode® 2 Series Pre–Drilled Polyester Control Stations

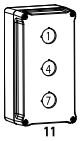
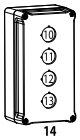
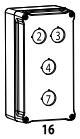
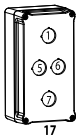
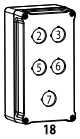
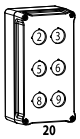
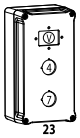
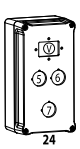
Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK09

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex e II/Ex de IIC/Ex deia IIC/
Ex demb IIC Gb
IP66

Polyester Pre-Drilled Boxes for Control Stations
Included: 1 white self-adhesive laminated plastic nameplate (black lettering), 1 earth continuity brass plate, threaded entries.



	Description/ Function	Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number – 1 Bottom IECEx	Catalog Number – 1 Bottom NBR IEC	Catalog Number – 2 Bottom IECEx	Catalog Number – 2 Bottom NBR IEC	Catalog Number – Feed–Thru IECEx	Catalog Number – Feed–Thru NBR IEC
Size 3 Pre-Drilled Enclosures — 230 mm x 120 mm x 91 mm (9.06" x 4.72" x 3.58")										
	For 3 actuators 1 vertical rail	M20	1.1 (2.43)	4.2 (256.30)	**U23W111**	**NU23W111**	**U23W211**	**NU23W211**	**U23U111**	**NU23U111**
		M25			**U23W311**	**NU23W311**	**U23W411**	**NU23W411**	**U23U311**	**NU23U311**
		3/4"			**U23Z311**	**NU23Z311**	**U23Z411**	**NU23Z411**	**U23X311**	**NU23X311**
	For 4 actuators 1 vertical rail	M20	1.1 (2.43)	4.2 (256.30)	**U23W114**	**NU23W114**	**U23W214**	**NU23W214**	**U23U114**	**NU23U114**
		M25			**U23W314**	**NU23W314**	**U23W414**	**NU23W414**	**U23U314**	**NU23U314**
		3/4"			**U23Z314**	**NU23Z314**	**U23Z414**	**NU23Z414**	**U23X314**	**NU23X314**
	For 4 actuators 3 horizontal rails	M20	1.1 (2.43)	4.2 (256.30)	**U23W116**	**NU23W116**	**U23W216**	**NU23W216**	**U23U116**	**NU23U116**
		M25			**U23W316**	**NU23W316**	**U23W416**	**NU23W416**	**U23U316**	**NU23U316**
		3/4"			**U23Z316**	**NU23Z316**	**U23Z416**	**NU23Z416**	**U23X316**	**NU23X316**
	For 4 actuators 3 horizontal rails	M20	1.1 (2.43)	4.2 (256.30)	**U23W117**	**NU23W117**	**U23W217**	**NU23W217**	**U23U117**	**NU23U117**
		M25			**U23W317**	**NU23W317**	**U23W417**	**NU23W417**	**U23U317**	**NU23U317**
		3/4"			**U23Z317**	**NU23Z317**	**U23Z417**	**NU23Z417**	**U23X317**	**NU23X317**
	For 5 actuators 3 horizontal rails	M20	1.1 (2.43)	4.2 (256.30)	**U23W118**	**NU23W118**	**U23W218**	**NU23W218**	**U23U118**	**NU23U118**
		M25			**U23W318**	**NU23W318**	**U23W418**	**NU23W418**	**U23U318**	**NU23U318**
		3/4"			**U23Z318**	**NU23Z318**	**U23Z418**	**NU23Z418**	**U23X318**	**NU23X318**
	For 6 actuators 3 horizontal rails	M20	1.1 (2.43)	4.2 (256.30)	**U23W120**	**NU23W120**	**U23W220**	**NU23W220**	**U23U120**	**NU23U120**
		M25			**U23W320**	**NU23W320**	**U23W420**	**NU23W420**	**U23U320**	**NU23U320**
		3/4"			**U23Z320**	**NU23Z320**	**U23Z420**	**NU23Z420**	**U23X320**	**NU23X320**
	For 1 ammeter 48x48 + 2 actuators 1 vertical rail	M20	1.1 (2.43)	4.2 (256.30)	**U23W123**	**NU23W123**	**U23W223**	**NU23W223**	**U23U123**	**NU23U123**
		M25			**U23W323**	**NU23W323**	**U23W423**	**NU23W423**	**U23U323**	**NU23U323**
		3/4"			**U23Z323**	**NU23Z323**	**U23Z423**	**NU23Z423**	**U23X323**	**NU23X323**
	For 1 ammeter 48x48 + 3 actuators 1 vertical rail (V) 2 horizontal rails (5-6-7)	M20	11.1 (2.43)1	4.2 (256.30)	**U23W124**	**NU23W124**	**U23W224**	**NU23W224**	**U23U124**	**NU23U124**
		M25			**U23W324**	**NU23W324**	**U23W424**	**NU23W424**	**U23U324**	**NU23U324**
		3/4"			**U23Z324**	**NU23Z324**	**U23Z424**	**NU23Z424**	**U23X324**	**NU23X324**

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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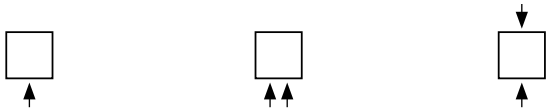
Unicode® 2 Series Pre–Drilled Stainless Steel Control Stations

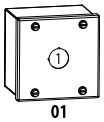
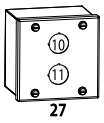
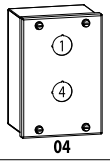
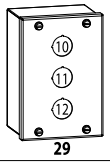
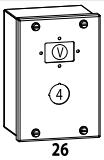
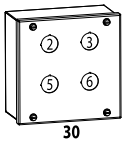
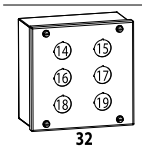
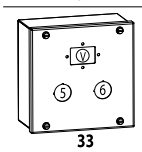
Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66 – IK10

NBR IEC:
Zone 1 and 2
Ex e II/Ex de II/Ex eia or eib IIC Gb
IP66

Stainless Steel Pre-drilled Boxes for Control Stations
Included: 1 white self-adhesive laminated plastic nameplate (black lettering), clearance entries.



	Description/ Function	Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number – 1 Bottom IECEx	Catalog Number – 1 Bottom NBR IEC	Catalog Number – 2 Bottom IECEx	Catalog Number – 2 Bottom NBR IEC	Catalog Number – Feed–Thru IECEx	Catalog Number – Feed–Thru NBR IEC
Size 1 Pre-Drilled Enclosures										
 01	For 1 actuator 1 vertical rail	M20	1.0 (2.20)	2.7 (164.76)	**U61W101**	**NU61W101**	**U61W201**	**NU61W201**	**U61U101**	**NU61U101**
		M25			**U61W301**	**NU61W301**	**U61W401**	**NU61W401**	**U61U301**	**NU61U301**
		3/4"			**U61Z301**	**NU61Z301**	**U61Z401**	**NU61Z401**	**U61X301**	**NU61X301**
 27	For 2 actuators 1 vertical rail	M20	1.0 (2.20)	2.7 (164.76)	**U61W127**	**NU61W127**	**U61W227**	**NU61W227**	**U61U127**	**NU61U127**
		M25			**U61W327**	**NU61W327**	**U61W427**	**NU61W427**	**U61U327**	**NU61U327**
		3/4"			**U61Z327**	**NU61Z327**	**U61Z427**	**NU61Z427**	**U61X327**	**NU61X327**
Size 2 Pre-Drilled Enclosures										
 04	For 2 actuators 1 vertical rail	M20	1.5 (3.31)	3.6 (219.69)	**U62W104**	**NU62W104**	**U62W204**	**NU62W204**	**U62U104**	**NU62U104**
		M25			**U62W304**	**NU62W304**	**U62W404**	**NU62W404**	**U62U304**	**NU62U304**
		3/4"			**U62Z304**	**NU62Z304**	**U62Z404**	**NU62Z404**	**U62X304**	**NU62X304**
 29	For 3 actuators 1 vertical rail	M20	1.5 (3.31)	3.6 (219.69)	**U62W129**	**NU62W129**	**U62W229**	**NU62W229**	**U62U129**	**NU62U129**
		M25			**U62W329**	**NU62W329**	**U62W429**	**NU62W429**	**U62U329**	**NU62U329**
		3/4"			**U62Z329**	**NU62Z329**	**U62Z429**	**NU62Z429**	**U62X329**	**NU62X329**
 26	For 1 ammeter 48x48 + 1 actuator 1 vertical rail	M20	1.5 (3.31)	3.6 (219.69)	**U62W126**	**NU62W126**	**U62W226**	**NU62W226**	**U62U126**	**NU62U126**
		M25			**U62W326**	**NU62W326**	**U62W426**	**NU62W426**	**U62U326**	**NU62U326**
		3/4"			**U62Z326**	**NU62Z326**	**U62Z426**	**NU62Z426**	**U62X326**	**NU62X326**
Size 3 Pre-Drilled Enclosures										
 30	For 4 actuators 2 vertical rails	M20	1.8 (3.97)	5.3 (323.43)	**U63W130**	**NU63W130**	**U63W230**	**NU63W230**	**U63U130**	**NU63U130**
		M25			**U63W330**	**NU63W330**	**U63W430**	**NU63W430**	**U63U330**	**NU63U330**
		3/4"			**U63Z330**	**NU63Z330**	**U63Z430**	**NU63Z430**	**U63X330**	**NU63X330**
 32	For 6 actuators 2 vertical rails	M20	1.8 (3.97)	5.3 (323.43)	**U63W132**	**NU63W132**	**U63W232**	**NU63W232**	**U63U132**	**NU63U132**
		M25			**U63W332**	**NU63W332**	**U63W432**	**NU63W432**	**U63U332**	**NU63U332**
		3/4"			**U63Z332**	**NU63Z332**	**U63Z432**	**NU63Z432**	**U63X332**	**NU63X332**
 33	For 1 ammeter 48 x 48 + 2 actuators 1 vertical rail (V) 1 horizontal rail (5-6)	M20	1.8 (3.97)	5.3 (323.43)	**U63W133**	**NU63W133**	**U63W233**	**NU63W233**	**U63U133**	**NU63U133**
		M25			**U63W333**	**NU63W333**	**U63W433**	**NU63W433**	**U63U333**	**NU63U333**
		3/4"			**U63Z333**	**NU63Z333**	**U63Z433**	**NU63Z433**	**U63X333**	**NU63X333**

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

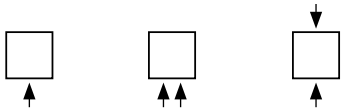
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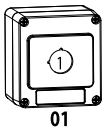
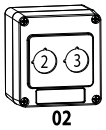
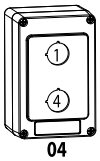
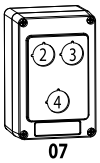
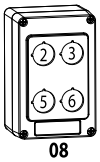
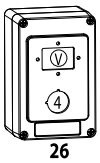
Unicode® 2 Series Pre–Drilled Aluminum ① Control Stations

Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66

Aluminum Pre-drilled boxes for Control Stations
Included: 1 white self-adhesive laminated plastic nameplate (black lettering), clearance entries.



	Description/Function	Entries	Weight kg (lb)	Volume dm³ (in³)	IECEx Catalog Number 1 Bottom	2 Bottom	Feed–Thru
Size 1 Pre-Drilled Enclosures							
 01	For 1 actuator 1 horizontal rail	M20	1.0 (2.20)	2.7 (164.76)	**U81W101**	**U81W201**	**U81U101**
		3/4"			**U81Z301**	**U81Z401**	**U81X301**
 02	For 2 actuators 1 horizontal rail	M20	1.0 (2.20)	2.7 (164.76)	**U81W102**	**U81W202**	**U81U102**
		3/4"			**U81Z302**	**U81Z402**	**U81X302**
Size 2 Pre-Drilled Enclosures							
 04	For 2 actuators 1 vertical rail	M20	1.5 (3.31)	2.7 (164.76)	**U82W104**	**U82W204**	**U82U104**
		3/4"			**U82Z304**	**U82Z404**	**U82X304**
 07	For 3 actuators 2 horizontal rails	M20	1.5 (3.31)	2.7 (164.76)	**U82W107**	**U82W207**	**U82U107**
		3/4"			**U82Z307**	**U82Z407**	**U82X307**
 08	For 4 actuators 2 horizontal rails	M20	1.5 (3.31)	2.7 (164.76)	**U82W108**	**U82W208**	**U82U108**
		3/4"			**U82Z308**	**U82Z408**	**U82X308**
 26	For 1 Ammeter 48x48 + 1 actuator 1 vertical rail	M20	1.5 (3.31)	2.7 (164.76)	**U82W126**	**U82W226**	**U82U126**
		3/4"			**U82Z326**	**U82Z426**	**U82x326**

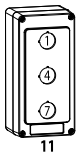
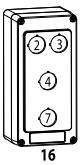
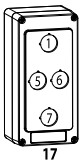
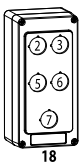
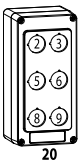
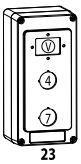
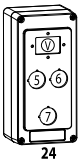
① Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Pre–Drilled Aluminum ① Control Stations
Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
Ex de IIC/Ex demb IIC/Ex tD A21
IP66

Aluminum Pre-drilled boxes for Control Stations
Included: 1 white self-adhesive laminated plastic nameplate (black lettering), clearance entries.

	Description/Function	Entries	Weight kg (lb)	Volume dm³ (in³)	IECEx Catalog Number 1 Bottom	2 Bottom	Feed–Thru
Size 3 Pre-Drilled Enclosures — 230 mm x 110 mm x 95 mm (9.06" x 4.33" x 3.74")							
 11	For 3 actuators 1 vertical rail	M20	1.8 (3.97)	4.2 (256.30)	**U83W111**	**U83W211**	**U83U111**
		M25			**U83W311**	**U83W411**	**U83U311**
		3/4"			**U83Z311**	**U83Z411**	**U83X311**
 16	For 4 actuators 3 horizontal rails	M20	1.8 (3.97)	4.2 (256.30)	**U83W116**	**U83W216**	**U83U116**
		M25			**U83W316**	**U83W416**	**U83U316**
		3/4"			**U83Z316**	**U83Z416**	**U83X316**
 17	For 4 actuators 3 horizontal rails	M20	1.8 (3.97)	4.2 (256.30)	**U83W117**	**U83W217**	**U83U117**
		M25			**U83W317**	**U83W417**	**U83U317**
		3/4"			**U83Z317**	**U83Z417**	**U83X317**
 18	For 5 actuators 3 horizontal rails	M20	1.8 (3.97)	4.2 (256.30)	**U83W118**	**U83W218**	**U83U118**
		M25			**U83W318**	**U83W418**	**U83U318**
		3/4"			**U83Z318**	**U83Z418**	**U83X318**
 20	For 6 actuators 3 horizontal rails	M20	1.8 (3.97)	4.2 (256.30)	**U83W120**	**U83W220**	**U83U120**
		M25			**U83W320**	**U83W420**	**U83U320**
		3/4"			**U83Z320**	**U83Z420**	**U83X320**
 23	For 1 ammeter 48x48 + 2 actuators 1 vertical rail	M20	1.8 (3.97)	4.2 (256.30)	**U83W123**	**U83W223**	**U83U123**
		M25			**U83W323**	**U83W423**	**U83U323**
		3/4"			**U83Z323**	**U83Z423**	**U83X323**
 24	For 1 ammeter 48x48 + 3 actuators 1 vertical rail (V) 2 horizontal rails (5-6-7)	M20	1.8 (3.97)	4.2 (256.30)	**U83W124**	**U83W224**	**U83U124**
		M25			**U83W324**	**U83W424**	**U83U324**
		3/4"			**U83Z324**	**U83Z424**	**U83X324**

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

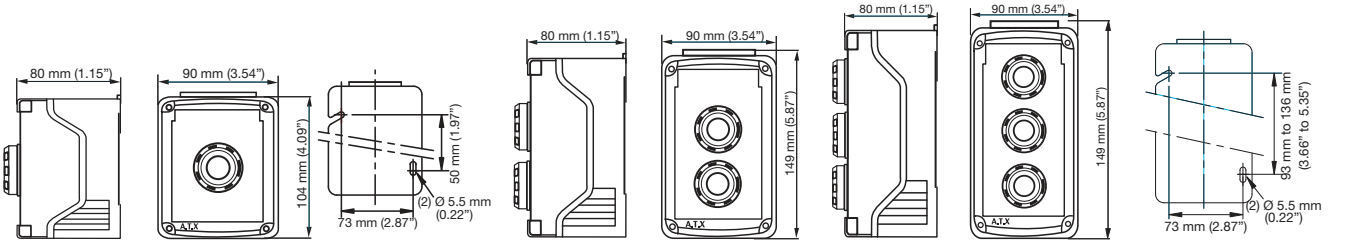
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Unicode® 2 Series Pre–Drilled Control Station Dimensions

Increased Safety

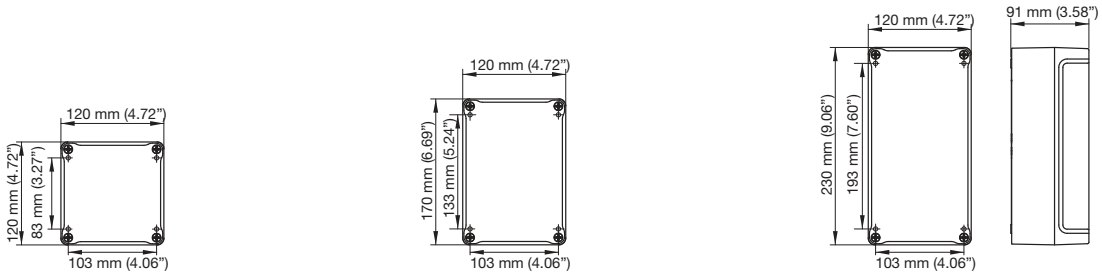
Polyamide, Fiberglass Reinforced Polyester, 316L Stainless Steel, Aluminum ①

Polyamide



Size 1 | **Size 1 Mounting/ Fixing Details** | **Size 2** | **Size 3** | **Size 2 and 3 Mounting/Fixing Details**

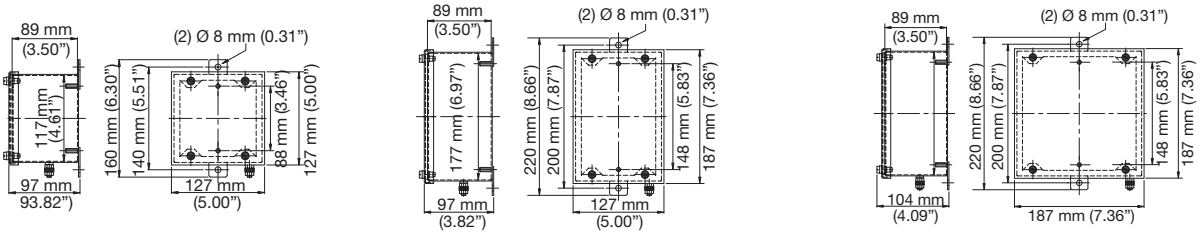
Fiberglass Reinforced Polyester



Size 1 | **Size 2** | **Size 3**

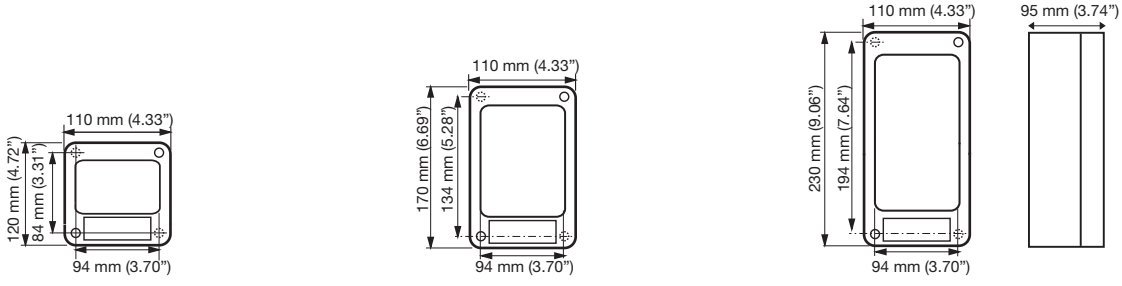
Mounting/Fixing Details for Above Boxes: Four Holes Ø 5 mm (0.20")

316L Stainless Steel



Size 1 | **Size 2** | **Size 3**

Aluminum



Size 1 | **Size 2** | **Size 3**

Mounting/Fixing Details for above Boxes: Two Holes Ø 5 mm (0.20")

① *Aluminum Unicode® 2 Series Control Stations and Switches are not recognized for use in any NBR IEC Brazilian governed areas.*

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Unicode® 2 Series Push Buttons

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 – IK10

NBR IEC:
Zone 1 and 2
Ex e II Gb/Ex tb IIIC Db
IP66

Features

- Can be equipped with up to 3 Unicode 2 Contact Blocks (UCB) Series contact blocks.
- ATEX and IECEx certified.
- TS35 rail mounted.
- Panel mounted.

Standard Materials

- Body: polyamide
- Seal: ethylene propylene diene Monomer (M-class) rubber (EPDM)

ATEX/IECEx Certifications and Compliances

- Certification Type TCe
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e II
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — CE Declaration of Conformity: 5C242
  - — ATEX Certificate: LCIE 09 ATEX 3010U
  - — IEC Certificate: IECEx LCI 09.0011U
  - — Other Certifications: GOST
  - — Ingress Protection (solid and liquid): IP66
  - — Impact Resistance (shock): IK10
- Ex standards :EN/IEC 60079-0; 60079-7; 61241-0; 61241-1
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type TCe
  - — Gas: Zones 1 and 2
    - – IEC Marking: Ex e II Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
  - — Ambient temperature: -40 °C to +55 °C (-40 °F to +131 °F)
  - — INMETRO Certificate: BVC 10.0044-U
  - — Ingress Protection: IP66
  - — Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-7, 60079-31
- INMETRO Ordinance: 179
- Other Standards: ABNT NBR IEC 60529 (IP)



UA0GR (rail mounted contacts)



UA0GP (panel mounted contacts)



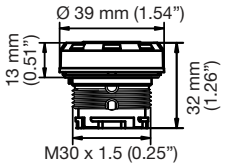
Contact Block



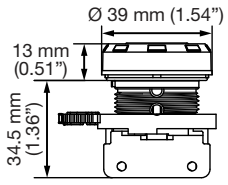
UIA08

Dimensions in Millimeters (Inches)

Rail Mounted Contacts



Panel Mounted Contacts



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Unicode® 2 Series Push Buttons

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
IP66 – IK10

NBR IEC:
Zone 1 and 2
Ex e II Gb/Ex tb IIIC Db
IP66

	Weight in Kilograms (Pounds)		Volume dm³ (in³)			Catalog Number			
						IECEx	NBR IEC	IECEx	NBR IEC
	Rail Mounted	Panel Mounted	Rail Mounted	Panel Mounted	Pack	Rail Mounted		Panel Mounted	
Spring Return - Push Button (contact block to be ordered separately) *Legend plates, guards, blanking plugs (see Accessories page).*									
Red + Green	0.03 (0.06)	0.05 (0.11)	0.06 (3.66)	0.17 (10.37)	1	**UA0RGR**	**NUA0RGR**	**UA0RGP**	**NUA0RGP**
Green	0.03 (0.06)	0.05 (0.11)	0.06 (3.66)	0.17 (10.37)	1	**UA0GR**	**NUA0GR**	**UA0GP**	**NUA0GP**
Red	0.03 (0.06)	0.05 (0.11)	0.06 (3.66)	0.17 (10.37)	1	**UA0RR**	**NUA0RR**	**UA0RP**	**NUA0RP**
White	0.03 (0.06)	0.05 (0.11)	0.06 (3.66)	0.17 (10.37)	1	**UA0WR**	**NUA0WR**	**UA0WP**	**NUA0WP**
Blue	0.03 (0.06)	0.05 (0.11)	0.06 (3.66)	0.17 (10.37)	1	**UA0BR**	**NUA0BR**	**UA0BP**	**NUA0BP**
Yellow	0.03 (0.06)	0.05 (0.11)	0.06 (3.66)	0.17 (10.37)	1	**UA0YR**	**NUA0YR**	**UA0YP**	**NUA0YP**
1-Pole Contact Blocks									
1 x NO						**UCB5R**	**NUCB5R**	**UCB5P**	**NUCB5P**
1 x NC	0.032 (0.071)		0.06 (3.66)		1	**UCB9R**	**NUCB9R**	**UCB9P**	**NUCB9P**
Spare Parts									
Rail to panel mounted conversion adaptor	0.02 (0.04)		0.08 (4.88)		1			**UPMA**	**NUPMA**

Marking	Color	Weight kg (lb)	Volume dm³ (in³)	Pack	Catalog Number IECEx	Catalog Number NBR IEC
Set of Five Spare Inserts						
(unmarked)	Green	0.01 (0.02)	0.01 (0.61)	1	**UIAG**	**NUIAG**
(unmarked)	Red	0.01 (0.02)	0.01 (0.61)	1	**UIAR**	**NUIAR**
(unmarked)	Yellow	0.01 (0.02)	0.01 (0.61)	1	**UIAY**	**NUIAY**
(unmarked)	White	0.01 (0.02)	0.01 (0.61)	1	**UIAW**	**NUIAW**
(unmarked)	Blue	0.01 (0.02)	0.01 (0.61)	1	**UIAB**	**NUIAB**
(unmarked)	Black	0.01 (0.02)	0.01 (0.61)	1	**UIAN**	**NUIAN**
ON	Green	0.01 (0.02)	0.01 (0.61)	1	**UIA01**	**NUIA01**
OFF	Red	0.01 (0.02)	0.01 (0.61)	1	**UIA02**	**NUIA02**
START	Green	0.01 (0.02)	0.01 (0.61)	1	**UIA03**	**NUIA03**
STOP	Red	0.01 (0.02)	0.01 (0.61)	1	**UIA04**	**NUIA04**
MARCHE	Green	0.01 (0.02)	0.01 (0.61)	1	**UIA05**	**NUIA05**
ARRET	Red	0.01 (0.02)	0.01 (0.61)	1	**UIA06**	**NUIA06**
I	Green	0.01 (0.02)	0.01 (0.61)	1	**UIA07**	**NUIA07**
O	Red	0.01 (0.02)	0.01 (0.61)	1	**UIA08**	**NUIA08**

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Unicode® 2 Series Mushroom Push Buttons

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 – IK10

NBR IEC:
Zone 1 and 2
Ex e II Gb/Ex tb IIIC Db
IP66

Features

- Can be equipped with up to 3 UCB Series Contact Blocks contact blocks.
- ATEX and IECEx certified.
- TS35 rail mounted.
- Panel mounted.

Standard Materials

- Body: polyamide
- Seal: ethylene propylene diene Monomer (M-class) rubber (EPDM)

ATEX/IECEx Certifications and Compliances

- Certification Type TCe
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e II
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — CE Declaration of Conformity: 5C242
  - — ATEX Certificate: LCIE 09 ATEX 3010U
  - — IEC Certificate: IECEx LCI 09.0011U
  - — Other Certifications: GOST R
  - — Ingress Protection (solid and liquid): IP66
  - — Impact Resistance (shock): IK10
- Ex standards :EN/IEC 60079-0; 60079-7; 61241-0; 61241-1
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type TCe
  - — Gas: Zones 1 and 2
    - – IEC Marking: Ex e II Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
  - — Ambient Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — INMETRO Certificate: BVC 10.0044-U
  - — Ingress Protection: IP66
  - — Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-7, 60079-31
- INMETRO Ordinance: 179
- Other Standards: ABNT NBR IEC 60529 (IP)



UR0R
(rail mounted contacts)



UR0P
(panel mounted contacts)



Contact Block



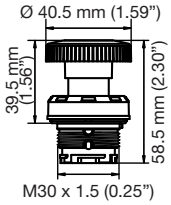
UD0R
(rail mounted contacts)



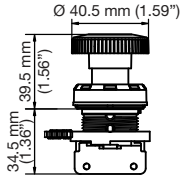
UD0P
(panel mounted contacts)

Dimensions in Millimeters (Inches)

Rail Mounted Contacts



Panel Mounted Contacts



	Weight kg (lb)		Volume dm³ (in³)			Catalog Number			
						Rail Mounted		Panel Mounted	
	Rail Mounted	Panel Mounted	Rail Mounted	Panel Mounted	Pack	IECEx	NBR IEC	IECEx	NBR IEC
Spring Return Mushroom Head Push Button (contact block to be ordered separately) *Legend plates, guards, blanking plugs (see Accessories page).*									
Red	0.045 (0.99)	0.06 (0.13)	0.26 (15.87)	0.12 (7.32)	1	**UR0R**	**NUR0R**	**UR0P**	**NUR0P**
Black	0.045 (0.99)	0.06 (0.13)	0.26 (15.87)	0.12 (7.32)	1	**UB0R**	**NUB0R**	**UB0P**	**NUB0P**
Push-Pull Mushroom Head Push Button (contact block to be ordered separately) *Legend plates, guards, blanking plugs (see Accessories page).*									
Red Emergency Stop	0.045 (0.99)	0.06 (0.13)	0.12 (7.32)	0.26 (15.87)	1	**UD0R**	**NUD0R**	**UD0P**	**NUD0P**
1-Pole Contact Blocks									
1 x NO	0.032 (0.071)		0.06 (3.66)		1	**UCB5R**	**NUCB5R**	**UCB5P**	**NUCB5P**
1 x NC						**UCB9R**	**NUCB9R**	**UCB9P**	**NUCB9P**
Spare Parts									
Rail to panel mounted conversion adaptor	0.02 (0.04)		0.08 (4.88)		1			**UPMA**	**NUPMA**

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Unicode® 2 Series Key Release Mushroom Push Buttons

Components for Increased Safety Enclosures

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66

NBR IEC:
Zone 1 and 2
Ex de IIC/Ex e II Gb/Ex tb IIIC Db
IP66

Features

- Can be equipped with up to 2 Unicode 2 Contact Blocks (UCB) Series contact blocks.
- ATEX and IECEx certified.
- TS35 rail mounted.
- Panel mounted.

Standard Materials

- Body: thermosetting plastic
- Seal: ethylene propylene diene Monomer (M-class) rubber (EPDM)

ATEX/IEC Certifications and Compliances

- Certification Type AUX
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e II
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -20 °C to +70 °C (-4 °F to +158 °F)
  - — CE Declaration of Conformity: 5C206
  - — ATEX Certificate: LCIE 00 ATEX 0002U
  - — IEC Certificate: LCIE Ex 00.012U
  - — Other Certifications: GOST r
  - — Ingress Protection (solid and liquid): IP66
  - — Impact Resistance (shock): 7 Joules
- Ex standards :EN/IEC 60079-0; 60079-7; 61241-0; 61241-1
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type AUX
  - — Gas: Zone 1 and 2
    - – IEC Marking: Ex de IIC/Ex e IIC Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
  - — Ambient Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — INMETRO Ordinance: 179
  - — INMETRO Certificate: BVC 11.0644-U
  - — Ingress Protection: IP66
  - — Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-31



UC0R
(rail mounted contacts)



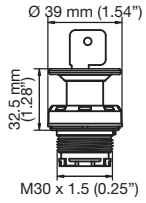
UC0P
(panel mounted contacts)



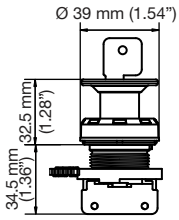
Contact Block

Dimensions in Millimeters (Inches)

Rail Mounted Contacts



Panel Mounted Contacts



	Weight kg (lb)		Volume dm³ (in³)			Catalog Number			
						Rail Mounted		Panel Mounted	
	Rail Mounted	Panel Mounted	Rail Mounted	Panel Mounted	Pack	IECEx	NBR IEC	IECEx	NBR IEC
Key Release Mushroom Head Push Button (contact block to be ordered separately) *Legend plates, guards, blanking plugs (see Accessories page).*									
Red	0.085 (0.183)	0.096 (0.212)	0.09 (5.49)	0.25 (15.26)	1	**UC0R**	**NUC0R**	**UC0P**	**NUC0P**
1-Pole Contact Blocks									
1 x NO	0.032 (0.071)		0.06 (3.66)		1	**UCB5R**	**NUCB5R**	**UCB5P**	**NUCB5P**
1 x NC						**UCB9R**	**NUCB9R**	**UCB9P**	**NUCB9P**
Spare Parts									
Spare key (type 4A 185)	—		—			**SK4A185**	**NSK4A185**	**SK4A185**	**NSK4A185**
Rail to panel mounted conversion adaptor	0.02 (0.04)		0.08 (4.88)		1			**UPMA**	**NUPMA**

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Unicode® 2 Series Key Momentary Push Buttons

Components for Increased Safety Enclosures

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
IP66

NBR IEC:
Zone 1 and 2
Ex de IIC/Ex e II Gb/Ex tb IIIC Db
IP66

Features

- Can be equipped with up to 2 Unicode 2 Contact Blocks (UCB) Series contact blocks.
- ATEX and IECEx certified.
- TS35 rail mounted.
- Panel mounted.

Standard Materials

- Body: thermosetting plastic
- Seal: ethylene propylene diene Monomer (M-class) rubber (EPDM)

ATEX/IEC Certifications and Compliances

- Certification Type AUX
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ex II 2 G
    - – ATEX/IEC Protection: Ex e II
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ex II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -20 °C to +70 °C (-4 °F to +158 °F)
  - — CE Declaration of Conformity: 5C206
  - — ATEX Certificate: LCIE 00 ATEX 0002U
  - — IEC Certificate: LCIE Ex 00.012U
  - — Other Certifications: GOST R
  - — Ingress Protection (solid and liquid): IP66
  - — Impact Resistance (shock): 7 Joules
- Ex standards :EN/IEC 60079-0; 60079-7; 61241-0; 61241-1
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type AUX
  - — Gas: Zone 1 and 2
    - – IEC Marking: Ex de IIC/Ex e IIC Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db



UE0R
(rail mounted contacts)



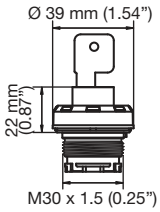
UE0P
(panel mounted contacts)



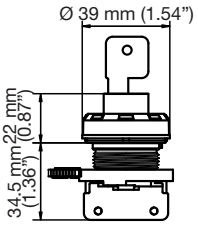
Contact Block

Dimensions in Millimeters (Inches)

Rail Mounted Contacts



Panel Mounted Contacts



- — Ambient Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
- — INMETRO Ordinance: 179
- — INMETRO Certificate: BVC 11.0644-U
- — Ingress Protection: IP66
- — Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

	Weight kg (lb)		Volume dm³ (in³)			Catalog Number			
						Rail Mounted		Panel Mounted	
	Rail Mounted	Panel Mounted	Rail Mounted	Panel Mounted	Pack	IECEx	NBR IEC	IECEx	NBR IEC
Key Momentary Push Button (contact block to be ordered separately) *Legend plates, guards, blanking plugs (see Accessories page).*									
Key removable in both positions	0.080 (0.176)	0.093 (0.205)	0.08 (4.88)	0.20 (12.20)	1	**UE0R**	**NUE0R**	**UE0P**	**NUE0P**
Key removable in ON positions	0.080 (0.176)	0.093 (0.205)	0.08 (4.88)	0.20 (12.20)	1	**UF0R**	**NUF0R**	**UF0P**	**NUF0P**
Key removable in OFF positions	0.080 (0.176)	0.093 (0.205)	0.08 (4.88)	0.20 (12.20)	1	**UG0R**	**NUG0R**	**UG0P**	**NUG0P**
1-Pole Contact Blocks									
1 x NO	0.032 (0.071)		0.06 (3.66)		1	**UCB5R**	**NUCB5R**	**UCB5P**	**NUCB5P**
1 x NC						**UCB9R**	**NUCB9R**	**UCB9P**	**NUCB9P**
Spare Parts									
Spare key (type 4A 185)	—		—			**SK4A185**	**NSK4A185**	**SK4A185**	**NSK4A185**
Rail to panel mounted conversion adaptor	0.02 (0.04)		0.08 (4.88)		1			**UPMA**	**NUPMA**

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Unicode® 2 Series Rotary Actuators

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66

NBR IEC:
Zone 1 and 2
Ex e II Gb/Ex tb IIIC Db
IP66

Features

- Can be equipped with up to 2 Unicode 3 Contact Blocks (UCB) Series contact blocks.
- ATEX and IECEx certified.
- TS35 rail mounted.
- Panel mounted.

Standard Materials

- Body: thermosetting plastic
- Seal: ethylene propylene diene Monomer (M-class) rubber (EPDM)

ATEX/IECEx Certifications and Compliances

- Certification Type TCe
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e II
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — CE Declaration of Conformity: 5C242
  - — ATEX Certificate: LCIE 09 ATEX 3010U
  - — IEC Certificate: IECEx LCI 09.0011U
  - — Other Certifications: GOST R
  - — Ingress Protection (solid and liquid): IP66
  - — Impact Resistance (shock): IK10
- Ex standards :EN/IEC 60079-0; 60079-7; 61241-0; 61241-1
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type TCe
  - — Gas: Zones 1 and 2
    - – IEC Marking: Ex e II Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
  - — Ambient Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — INMETRO Certificate: BVC 11.0644-U
  - — Ingress Protection: IP66
  - — Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-7, 60079-31
- INMETRO Ordinance: 179
- Other Standards: ABNT NBR IEC 60529 (IP)



UH0R
(rail mounted contacts)



UH0P
(panel mounted contacts)



Contact Block



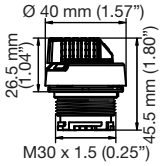
UJ0R
(rail mounted contacts)



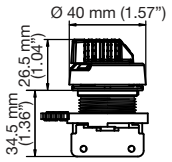
UJ0P
(panel mounted contacts)

Dimensions in Millimeters (Inches)

Rail Mounted Contacts



Panel Mounted Contacts



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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Unicode® 2 Series Rotary Actuators

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66

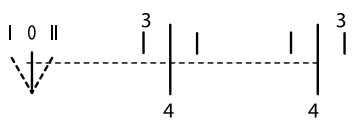
NBR IEC:
Zone 1 and 2
Ex e II Gb/Ex tb IIIC Db
IP66

	Weight kg (lb)		Volume dm³ (in³)			Catalog Number			
						Rail Mounted		Panel Mounted	
	Rail Mounted	Panel Mounted	Rail Mounted	Panel Mounted	Pack	IECEx	NBR IEC	IECEx	NBR IEC
2-Position Rotary Actuator (contact block to be ordered separately) *Legend plates, guards, blanking plugs (see Accessories page).*									
2-Positions Selector Switch (O-I), 2 maintained positions	0.038 (0.084)	0.051 (0.112)	0.09 (5.49)	0.22 (13.43)	1	**UH0R**	**NUH0R**	**UH0P**	**NUH0P**
3-Position Rotary Actuator (contact block to be ordered separately) *Legend plates, guards, blanking plugs (see Accessories page).*									
3-Position Selector Switch, I and II position maintained (I-O-II)	0.038 (0.084)	0.051 (0.112)	0.09 (5.49)	0.22 (13.43)	1	**UJ0R**	**NUJ0R**	**UJ0P**	**NUJ0P**
3-Position Selector Switch, I and II spring return to O (I->O<-II)	0.038 (0.084)	0.051 (0.112)	0.09 (5.49)	0.22 (13.43)	1	**UK0R**	**NUK0R**	**UK0P**	**NUK0P**
3-Position Selector Switch, I maintained, II spring return to O (I-O<-II)	0.038 (0.084)	0.051 (0.112)	0.09 (5.49)	0.22 (13.43)	1	**UM0R**	**NUM0R**	**UM0P**	**NUM0P**
3-Position Selector Switch, I spring return to O, II maintained (I->O-II)	0.038 (0.084)	0.051 (0.112)	0.09 (5.49)	0.22 (13.43)	1	**UN0R**	**NUN0R**	**UN0P**	**NUN0P**
1-Pole Contact Blocks									
1 x NO	0.032 (0.071)		0.06 (3.66)		1	**UCB5R**	**NUCB5R**	**UCB5P**	**NUCB5P**
1 x NC						**UCB9R**	**NUCB9R**	**UCB9P**	**NUCB9P**
Spare Parts									
Rail to panel mounted conversion adaptor	0.02 (0.04)		0.08 (4.88)		1	—	—	**UPMA**	**NUPMA**

Wiring Diagrams

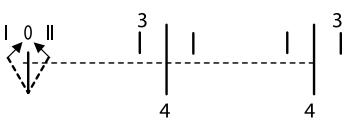
UJ0

UJ0	3-4	3-4
I	X	
0		
II		X
	"NO"	"NO"



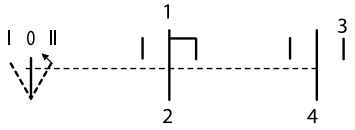
UK0

UK0	3-4	3-4
I	X	
0		
II		X
	"NO"	"NO"



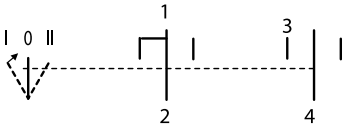
UM0

UM0	1-2	3-4
I		
0	X	
II	X	X
	"NC"	"NO"



UN0

UN0	1-2	3-4
I	X	X
0	X	
II		
	"NC"	"NO"



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Unicode® 2 Series Illuminated Push Buttons

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2
Ex e II Gb/Ex tb IIIC Db
IP66

Features

- Can be equipped with up to 2 Unicode 2 Contact Blocks (UCB) Series contact blocks — not supplied.
- ATEX and IECEx certified.
- TS35 rail mounted.
- High intensity single LED light.
- Long lifetime over 100,000 hours.
- Panel mounted.
- Rated operating voltage (Ue): 12 Vac to 254 Vac, 50/60 Hz and 12 Vdc to 60 Vdc.
- Terminal connection: 2.5 mm^2 (0.004 in^2)
- Operational life: 100,000 hours.

Standard Materials

- Body: polyamide
- Lens: polycarbonate
- Seal: ethylene propylene diene Monomer (M-class) rubber (EPDM)

ATEX/IECEx Certifications and Compliances

- Actuator and Lens: Certification Type TCe
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e II
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — CE Declaration of Conformity: 5C242
  - — ATEX Certificate: LCIE 09 ATEX 3010U
  - — IEC Certificate: IECEx LCI 09.0011U
  - —Ingress Protection (solid and liquid): IP66
  - — Impact Resistance (shock): IK10
- Contact Block and Pilot Light: Certification Type CVe
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e IIC
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -40 °C to +75 °C (-40 °F to +167 °F)
  - — CE Declaration of Conformity: 5C243
  - — ATEX Certificate: LCIE 09 ATEX 3001U
  - — IEC Certificate: IECEx LCI 09.0002U
- Other Certifications: GOST R
- Ex standards :EN/IEC 60079-0; 60079-7; 61241-0; 61241-1
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type TCe
  - — Gas: Zones 1 and 2
    - – IEC Marking: Ex e II Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
  - — Ambient Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — INMETRO Certificate: BVC 10.0044-U
  - — Ingress Protection: IP66
  - — Impact Resistance (shock): IK10
  - — Ex Standards: ABNT NBR IEC 60079-0, 60079-7, 60079-31



ULG0H
(rail mounted contacts)



ULG0P
(panel mounted contacts)



Contact Block



UIL08

- Certification Type CVe
  - — Gas: Zones 1 and 2
    - – IEC Marking: Ex de IIC Gb
  - — Ambient Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — INMETRO Certificate: BVC 10.0047-U
  - — Impact Resistance (shock): IK10
  - — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7
- INMETRO Ordinance: 179
- Other Standards: ABNT NBR IEC 60529 (IP)

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Unicode® 2 Series Illuminated Push Buttons

Components for Increased Safety Enclosures

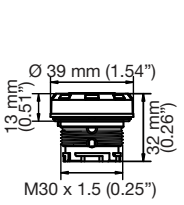
ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 - IK10

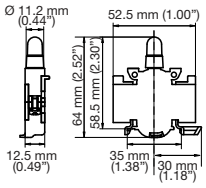
NBR IEC:
Zone 1 and 2
Ex e II Gb/Ex tb IIIC Db
IP66

	Weight kg (lb)		Volume dm³ (in³)			Catalog Number			
						Rail Mounted		Panel Mounted	
	Rail Mounted	Panel Mounted	Rail Mounted	Panel Mounted	Pack	IECEx	NBR IEC	IECEx	NBR IEC
Spring Return Illuminated Push Button (contact block to be ordered separately) *Legend plates, guards, blanking plugs (see Accessories page).*									
Green	0.062 (0.137)	0.075 (0.165)	0.26 (15.87)	0.28 (17.09)	1	**ULG0R**	**NULG0R**	**ULG0P**	**NULG0P**
Red	0.062 (0.137)	0.075 (0.165)	0.26 (15.87)	0.28 (17.09)	1	**ULR0R**	**NULR0R**	**ULR0P**	**NULR0P**
White	0.062 (0.137)	0.075 (0.165)	0.26 (15.87)	0.28 (17.09)	1	**ULW0R**	**NULW0R**	**ULW0P**	**NULW0P**
Blue	0.062 (0.137)	0.075 (0.165)	0.26 (15.87)	0.28 (17.09)	1	**ULB0R**	**NULB0R**	**ULB0P**	**NULB0P**
Yellow	0.062 (0.137)	0.075 (0.165)	0.26 (15.87)	0.28 (17.09)	1	**ULY0R**	**NULY0R**	**ULY0P**	**NULY0P**
1-Pole Contact Blocks									
1 x NO	0.032 (0.071)		0.06 (3.66)		1	**UCB5R**	**NUCB5R**	**UCB5P**	**NUCB5P**
1 x NC						**UCB9R**	**NUCB9R**	**UCB9P**	**NUCB9P**
Spare Parts									
Rail to panel mounted conversion adaptor	0.02 (0.04)		0.08 (4.88)		1	—	—	**UPMA**	**NUPMA**

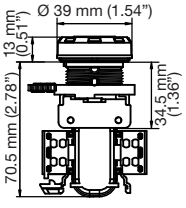
Marking	Color	Weight kg (lb)	Volume dm³ (in³)	Pack	Catalog Number IECEx	Catalog Number NBR IEC
Set of Five Spare Inserts						
(unmarked)	Green	0.01 (0.02)	0.01 (0.61)	1	**UIAG**	**NUIAG**
(unmarked)	Red	0.01 (0.02)	0.01 (0.61)	1	**UIAR**	**NUIAR**
(unmarked)	Yellow	0.01 (0.02)	0.01 (0.61)	1	**UIAY**	**NUIAY**
(unmarked)	White	0.01 (0.02)	0.01 (0.61)	1	**UIAW**	**NUIAW**
(unmarked)	Blue	0.01 (0.02)	0.01 (0.61)	1	**UIAB**	**NUIAB**
(unmarked)	Black	0.01 (0.02)	0.01 (0.61)	1	**UIAN**	**NUIAN**
ON	Green	0.01 (0.02)	0.01 (0.61)	1	**UIA01**	**NUIA01**
OFF	Red	0.01 (0.02)	0.01 (0.61)	1	**UIA02**	**NUIA02**
START	Green	0.01 (0.02)	0.01 (0.61)	1	**UIA03**	**NUIA03**
STOP	Red	0.01 (0.02)	0.01 (0.61)	1	**UIA04**	**NUIA04**
MARCHE	Green	0.01 (0.02)	0.01 (0.61)	1	**UIA05**	**NUIA05**
ARRET	Red	0.01 (0.02)	0.01 (0.61)	1	**UIA06**	**NUIA06**
I	Green	0.01 (0.02)	0.01 (0.61)	1	**UIA07**	**NUIA07**
O	Red	0.01 (0.02)	0.01 (0.61)	1	**UIA08**	**NUIA08**

Dimensions in Millimeters (Inches)





Rail Mounted Contacts



Panel Mounted Contacts

Wiring Diagram



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Unicode® 2 Series Pilot Lights

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 DG
IP66 - IK10

NBR IEC:
Zone 1 and 2
Ex e II Gb/Ex tb IIIC Db
IP66

Features

- ATEX and IEC certified.
- TS35 rail mounted.
- High intensity single LED light.
- Long lifetime over 100,000 hours.
- Rated operating voltage (Ue): 12 Vac to 254 Vac, 50/60 Hz and 12 Vdc to 60 Vdc.
- Terminal connection: 2.5 mm^2 (0.004 in^2)
- Operational life: 100,000 hours.

Standard Materials

- Body: polyamide
- Lens: polycarbonate
- Seal: ethylene propylene diene Monomer (M-class) rubber (EPDM)

ATEX/IECEx Certifications and Compliances

- Actuator and Lens: Certification Type TCe
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e II
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — CE Declaration of Conformity: 5C242
  - — ATEX Certificate: LCIE 09 ATEX 3010U
  - — IEC Certificate: IECEx LCI 09.0011U
  - —Ingress Protection (solid and liquid): IP66
  - — Impact Resistance (shock): IK10
- Contact Block and Pilot Light: Certification Type CVe
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e IIC
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -40 °C to +75 °C (-40 °F to +167 °F)
  - — CE Declaration of Conformity: 5C243
  - — ATEX Certificate: LCIE 09 ATEX 3001U
  - — IEC Certificate: IECEx LCI 09.0002U
- Other Certifications: GOST R
- Ex standards :EN/IEC 60079-0; 60079-7; 61241-0; 61241-1
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type TCe
  - — Gas: Zones 1 and 2
    - – IEC Marking: Ex e II Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
  - — Ambient Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — INMETRO Certificate: BVC 10.0044-U
  - — Ingress Protection: IP66
  - — Impact Resistance (shock): IK10
  - —Ex Standards: ABNT NBR IEC 60079-0, 60079-7, 60079-31



UPG0R
(rail mounted contacts)



UPG0P
(panel mounted contacts)

- Certification Type CVe
  - — Gas: Zones 1 and 2
    - – IEC Marking: Ex de IIC Gb
  - — Ambient Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — INMETRO Certificate: BVC 10.0047-U
  - — Impact Resistance (shock): IK10
  - — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7
- INMETRO Ordinance: 179
- Other Standards: ABNT NBR IEC 60529 (IP)

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Unicode® 2 Series Pilot Lights

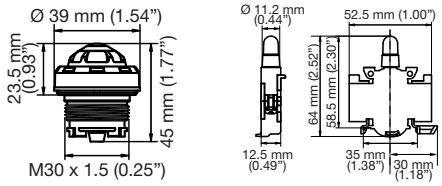
Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 DG
IP66 - IK10

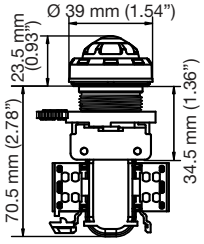
NBR IEC:
Zone 1 and 2
Ex e II Gb/Ex tb IIIC Db
IP66

	Weight kg (lb)		Volume dm³ (in³)			Catalog Number			
						Rail Mounted		Panel Mounted	
	Rail Mounted	Panel Mounted	Rail Mounted	Panel Mounted	Pack	IECEx	NBR IEC	IECEx	NBR IEC
Pilot Light: 12 Vac to 254, Vac 50/60 Hz, 12 Vdc to 60 Vdc *Legend plates, guards, blanking plugs (see Accessories page).*									
Green	0.056 (0.123)	0.069 (0.152)	0.29 (17.70)	0.31 (18.92)	1	**UPG0R**	**NUPG0R**	**UPG0P**	**NUPG0P**
Red	0.056 (0.123)	0.069 (0.152)	0.29 (17.70)	0.31 (18.92)	1	**UPR0R**	**NUPR0R**	**UPR0P**	**NUPR0P**
White	0.056 (0.123)	0.069 (0.152)	0.29 (17.70)	0.31 (18.92)	1	**UPW0R**	**NUPW0R**	**UPW0P**	**NUPW0P**
Blue	0.056 (0.123)	0.069 (0.152)	0.29 (17.70)	0.31 (18.92)	1	**UPB0R**	**NUPB0R**	**UPB0P**	**NUPB0P**
Yellow	0.056 (0.123)	0.069 (0.152)	0.29 (17.70)	0.31 (18.92)	1	**UPY0R**	**NUPY0R**	**UPY0P**	**NUPY0P**
Spare Parts									
Rail to panel mounted conversion adaptor	0.02 (0.04)		0.08 (4.88)		1			**UPMA**	**NUPMA**
Spare Lenses									
Green	0.03 (0.06)		0.06 (3.66)		1	**UPGL**	**NUPGL**	**UPGL**	**NUPGL**
Red	0.03 (0.06)		0.06 (3.66)		1	**UPRL**	**NUPRL**	**UPRL**	**NUPRL**
White	0.03 (0.06)		0.06 (3.66)		1	**UPWL**	**NUPWL**	**UPWL**	**NUPWL**
Blue	0.03 (0.06)		0.06 (3.66)		1	**UPBL**	**NUPBL**	**UPBL**	**NUPBL**
Yellow	0.03 (0.06)		0.06 (3.66)		1	**UPYL**	**NUPYL**	**UPYL**	**NUPYL**

Dimensions in Millimeters (Inches)



Rail Mounted Contacts



Panel Mounted Contacts

Wiring Diagram



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Unicode® 2 Series 1–Pole Contact Block

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 DG

NBR IEC:
Zone 1 and 2
Ex de IIC Gb
IP66

Features

- ATEX and IECEx certified.
- TS35 rail mounted.
- Panel mounted.
- High performance contact block suitable for low intensity (less than 5mA).
- Rated operating voltage (Ue): 500 Vac — 110 Vdc
- Switching capacity:
  - — AC12: 16 Amp/400 Vac
  - — AC14: 10 Amp/400 Vac
  - — AC15: 6 Amp/500 Vac
  - — DC13: 2 Amp/24 Vdc and 1 Amp/110 Vdc
- Terminal connection: 2.5 mm^2 (0.004 in^2)
- Operational life: 100,000 hours.

Standard Materials

- Body: polyamide
- Contact: silver alloy

ATEX/IECEx Certifications and Compliances

- Certification Type CVe
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e IIC
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: -40 °C to +75 °C (-40 °F to +167 °F)
  - — CE Declaration of Conformity: 5C243
  - — ATEX Certificate: LCIE 09 ATEX 3001U
  - — IEC Certificate: IECEx LCI 09.0002U
- Other Certifications: GOST R
- Ex standards :EN/IEC 60079-0; 60079-7; 61241-0; 61241-1
- Product Standards: EN/IEC 60947-1; 60947-5
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type CVe
  - — Gas: Zones 1 and 2
    - – IEC Marking: Ex de IIC Gb
  - — Ambient Temperature: -40 °C to +60 °C (-40 °F to +140 °F)
  - — INMETRO Certificate: BVC 10.0047-U
  - — Impact Resistance (shock): IK10
- INMETRO Ordinance: 179
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7

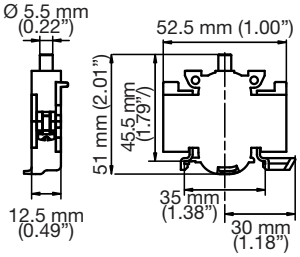


UCB5R
Rail Mounted Contacts
Top Access



UCB5P
Panel Mounted Contacts
Bottom Access

Dimensions in Millimeters (Inches)



Wiring Diagram



	Weight kg (lb)		Volume dm^3 (in^3)			Catalog Number			
						Rail Mounted		Panel Mounted	
	Rail Mounted	Panel Mounted	Rail Mounted	Panel Mounted	Pack	IECEx	NBR IEC	IECEx	NBR IEC
1-Pole Contact Blocks									
1 x NO	0.032 (0.071)		0.06 (3.66)		1	**UCB5R**	**NUCB5R**	**UCB5P**	**NUCB5P**
1 x NC						**UCB9R**	**NUCB9R**	**UCB9P**	**NUCB9P**

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Unicode® 2 Series 16 Amp Switches

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD

Features

- 2, 3, 4, 6 or 8-pole switches
  - — TS35 rail mounted.
  - — Panel mounted.
  - — Padlockable.
  - — Can be equipped with switch and changeover switch contact blocks.
- Switching capacity:
  - — AC 1, 16 Amp, 690 Vac
  - — AC 3, 8 Amp, 500 Vac
  - — AC 3, 4 Amp, 690 Vac
  - — AC 15, 16 Amp, 415 Vac
  - — DC 1, 10 Amp, 24 Vdc
  - — DC 1, 6 Amp, 60 Vdc
  - — DC 1: 6 Amp/110 Vdc (2 contacts wired in series)
  - — DC 1: 6 Amp/220 Vdc (3 contacts in series)
- Terminal connection: 1.5 mm^2 - 2.5 mm^2 (stranded), 1.5 mm^2 - 4 mm^2 (solid)
- Operational life: 10,000 cycles.

Standard Materials

- Body: polyamide
- Contact: silver

ATEX/IECEx Certifications and Compliances ①

- Switches: Certification Type SW16
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ex II 2 G
    - – ATEX/IEC Protection: Ex db eb IIC
  - — Dust: Zone 21 and 22
    - – Must be used in an approved dustproof enclosure
  - — Operating Temperature: -55 °C to +80 °C (-67 ºF to +176 ºF)
  - — CE Declaration of Conformity: 5C249
  - — ATEX Certificate: LCIE 12 ATEX 3068U
  - — IEC Certificate: IECEx LCIE 12.0021U
- Handles: Certification Type USH
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: 0081 Ex II 2 G
    - – ATEX/IEC Protection: Ex e II
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: 0081 Ex II2 D
    - – ATEX/IEC Protection: Ex tD A21
  - — IP66 IK10
  - — Operating Temperature: -20 °C to +75 °C (-4 °F to +167 °F)
  - — CE Declaration of Conformity: 5C221
  - — ATEX Certificate: LCIE 03 ATEX 0012U
  - — IEC Certificate: LCIE Ex 03.011U
- Other Certifications: GOST R
- Ex standards :EN/IEC 60079-0; 60079-1; 60079-7
- Product Standards: EN/IEC 60947-1; 60947-4; 60947-5
- Other standards: EN/IEC 60529 (IP); 62262 (IK)



US30R
(rail mounted switch)



US30P
(panel mounted switch)



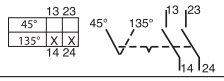
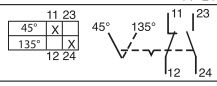
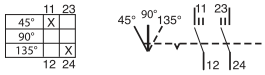
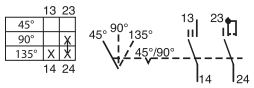
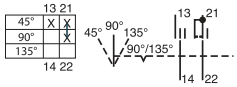
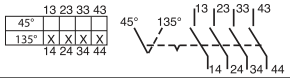
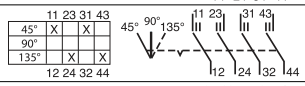
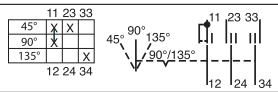
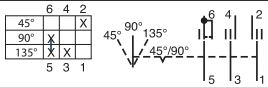
USH ②
(switch handle)

① These products are certified only when used as components in factory assembled panels.
② USH handle is IEC Certified, it is not for use in IECEx explosive atmospheres.

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Unicode® 2 Series 16 Amp Switches
Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD

	Diagram Number	Wiring Diagram	Catalog Number	
			Rail Mounted	Panel Mounted
Two Pole Selector Switches (handle to be ordered separately)				
2 position 2-pole selector switch	002		**US32R**	**US32P**
2 position 2-pole selector switch	016		**US30R**	**US30P**
3 position 2-pole selector switch	027		**US31R**	**US31P**
3 position 2-pole selector switch with spring return from 135° to 90°	038		**US33R**	**US33P**
3 position 2-pole selector switch with spring return from 45° to 90°	048		**US34R**	**US34P**
Three or Four Pole Selector Switches (handle to be ordered separately)				
2 position 4-pole selector switch	102		**US35R**	**US35P**
3 position 4-pole selector switch	119		**US36R**	**US36P**
2 position 4-pole selector switch	106		**US37R**	**US37P**
3 position 3-pole — Late break, early make selector switch with spring return from 45° to 90°	138		**US38R**	**US38P**
3 position 3-pole — Late break, early make selector switch with spring return from 135° to 90°	197		**US39R**	**US39P**
Padlockable lever handle for all selector switches				**USH** ①

① *USH handle is IEC Certified, it is not for use in IECEx explosive atmospheres.*

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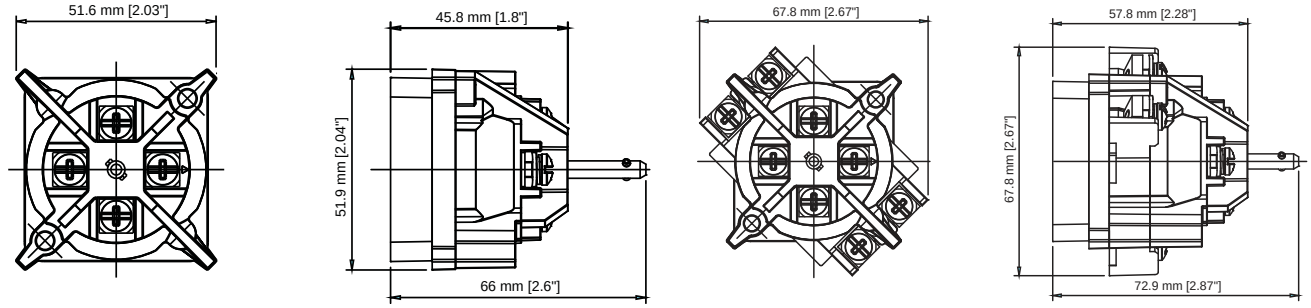
Unicode® 2 Series 16 Amp Switches

Components for Increased Safety Enclosures

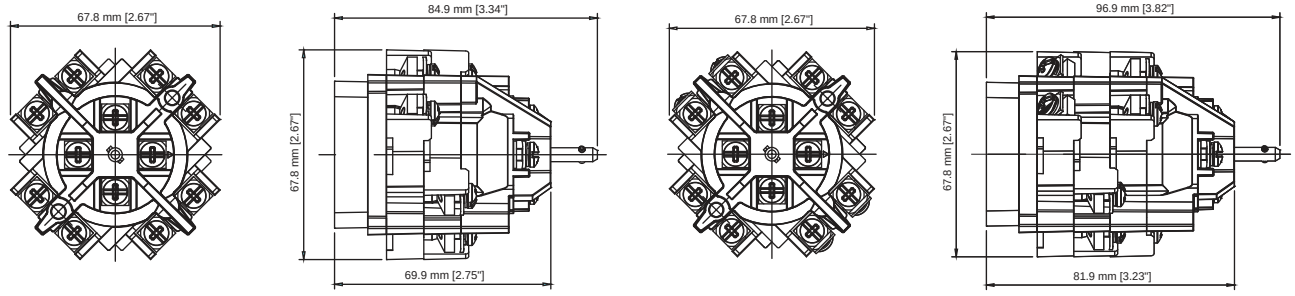
ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD

Dimensions in Millimeters (Inches)

16 Amp Switches

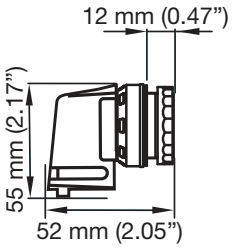


2–pole **3– and 4–pole**



6–pole **8–pole**

USH Handle ①



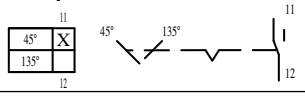
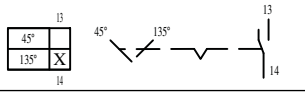
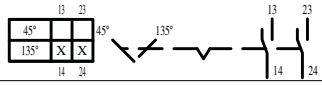
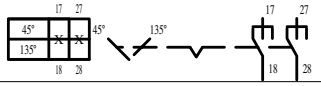
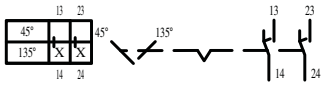
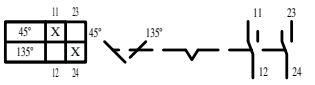
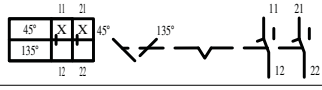
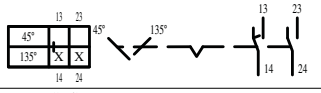
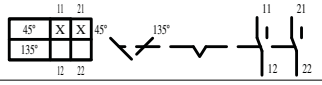
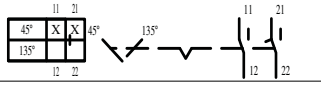
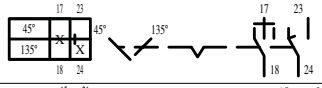
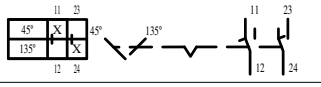
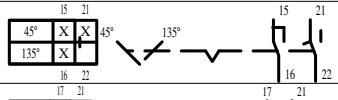
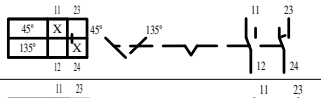
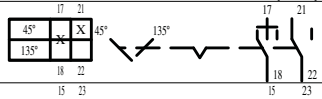
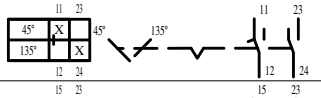
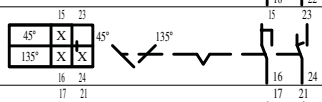
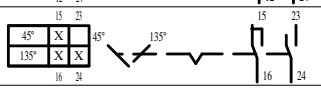
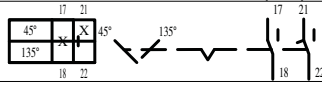
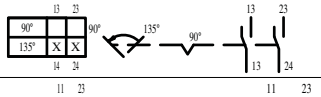
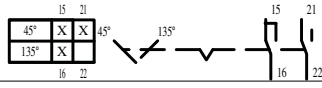
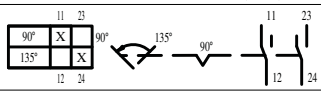
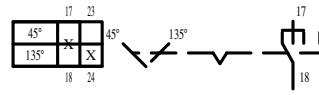
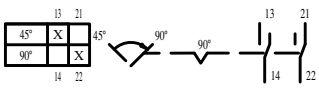
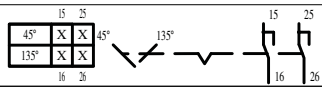
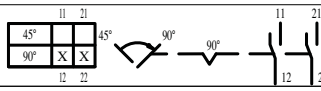
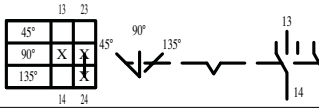
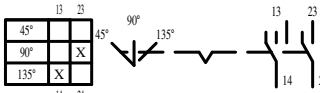
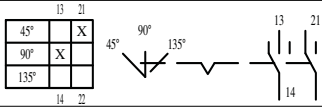
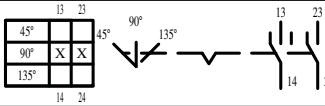
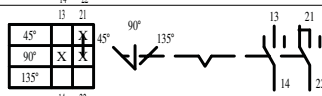
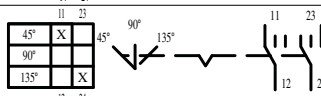
① *USH handle is IEC Certified, it is not for use in IECEx explosive atmospheres.*

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Unicode® 2 Series 16 Amp Switches

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD

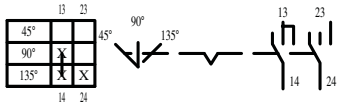
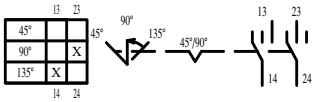
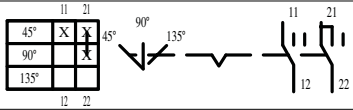
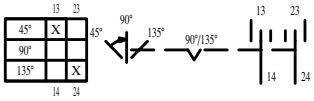
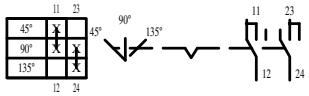
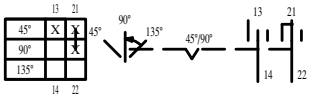
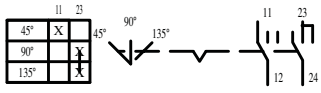
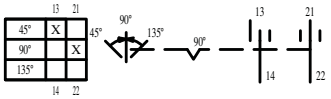
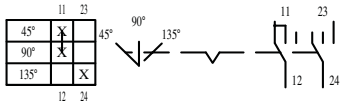
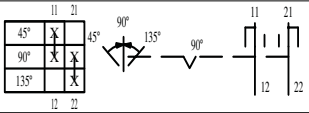
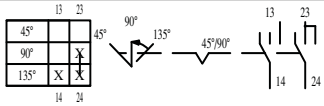
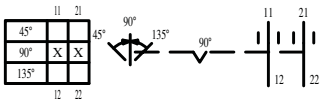
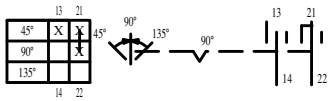
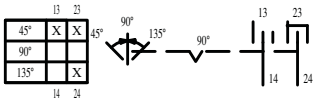
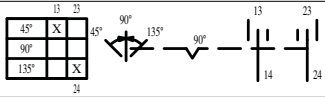
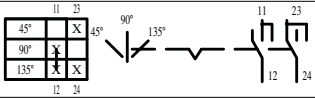
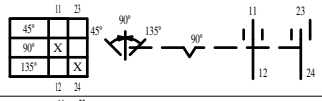
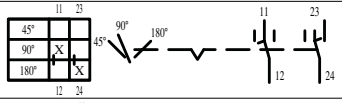
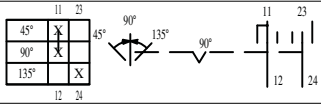
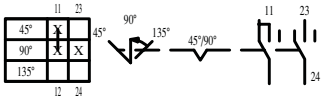
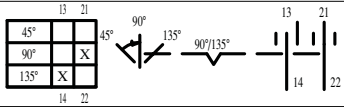
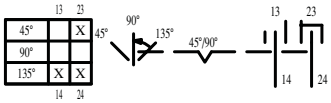
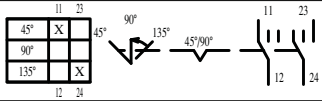
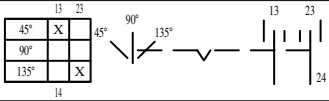
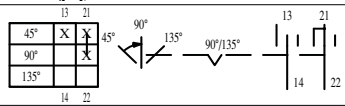
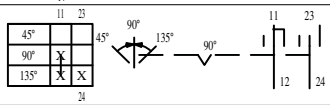
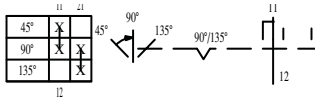
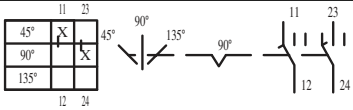
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	**US1612-0056**		**US1612-0061**
2-pole 2 position			
	**US1622-0002**		**US1622-0015**
	**US1622-0003**		**US1622-0016**
	**US1622-0004**		**US1622-0017**
	**US1622-0005**		**US1622-0018**
	**US1622-0007**		**US1622-0019**
	**US1622-0008**		**US1622-0020**
	**US1622-0009**		**US1622-0021**
	**US1622-0010**		**US1622-0043**
	**US1622-0011**		**US1622-0045**
	**US1622-0012**		**US1622-0053**
	**US1622-0013**		**US1622-0073**
	**US1622-0014**		**US1622-0074**
2-pole 3 position			
	**US1623-0022**		**US1623-0025**
	**US1623-0023**		**US1623-0026**
	**US1623-0024**		**US1623-0027**

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Unicode® 2 Series 16 Amp Switches

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
II 2 GD

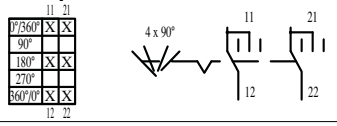
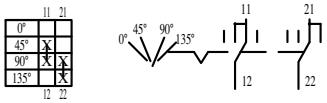
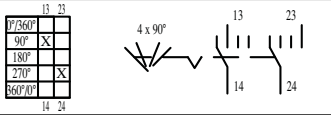
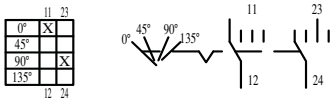
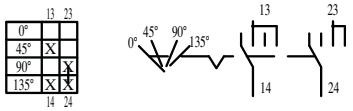
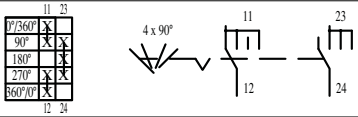
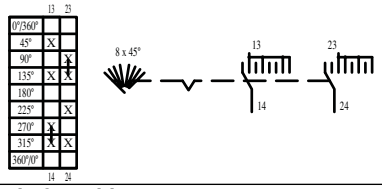
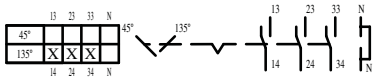
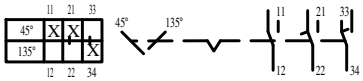
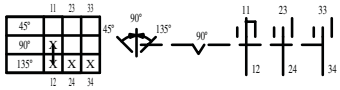
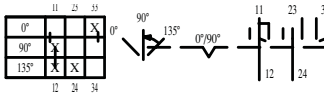
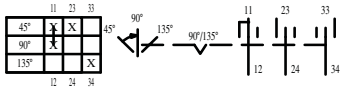
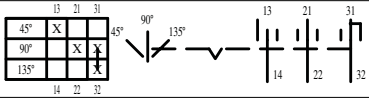
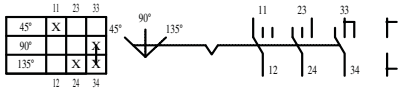
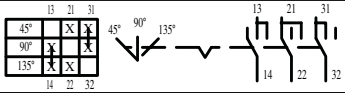
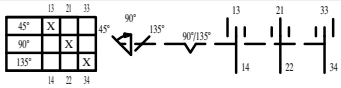
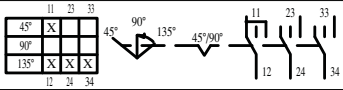
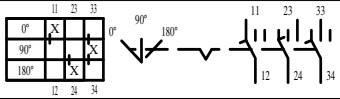
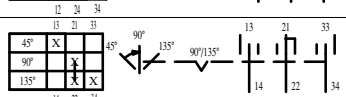
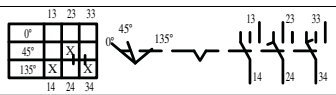
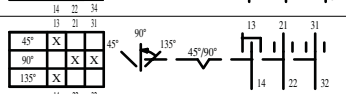
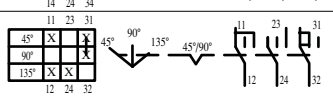
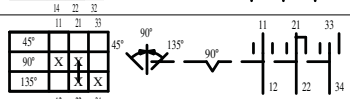
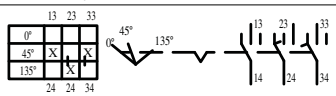
Wiring Diagram	Catalog Number	Wiring Diagram	Catalog Number
2-pole 3 position			
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	**US1623-0030**		**US1623-0052**
	**US1623-0031**		**US1623-0054**
	**US1623-0032**		**US1623-0055**
	**US1623-0038**		**US1623-0059**
	**US1623-0039**		**US1623-0068**
	**US1623-0040**		**US1623-0070**
	**US1623-0041**		**US1623-0071**
	**US1623-0042**		**US1623-0072**
	**US1623-0046**		**US1623-0075**
	**US1623-0047**		**US1623-0076**
	**US1623-0048**		**US1623-0087**
	**US1623-0049**		**US1623-9002**

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Unicode® 2 Series 16 Amp Switches

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD

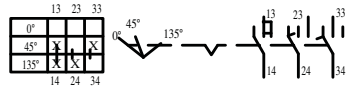
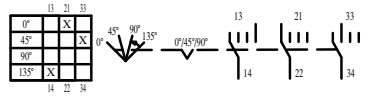
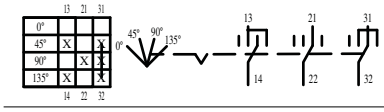
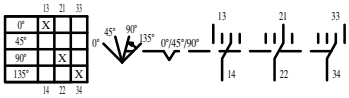
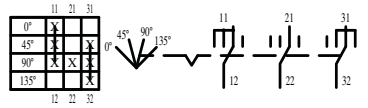
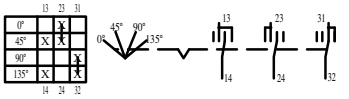
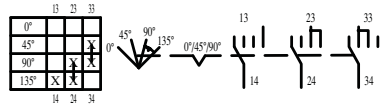
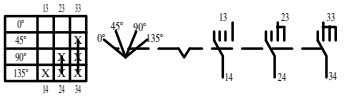
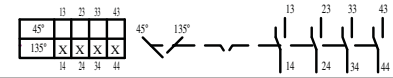
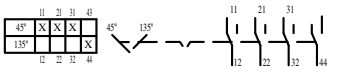
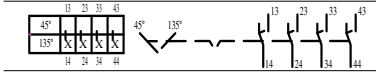
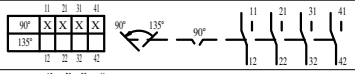
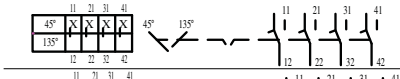
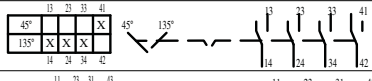
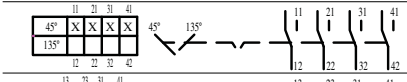
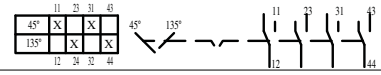
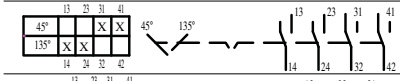
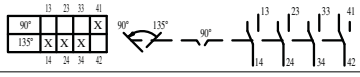
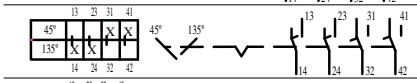
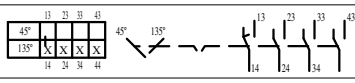
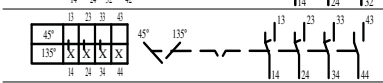
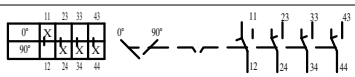
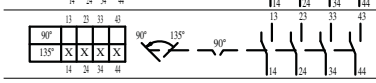
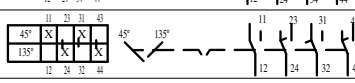
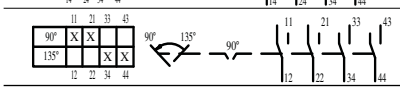
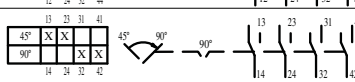
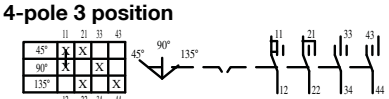
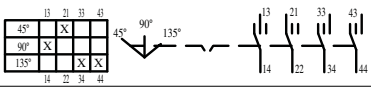
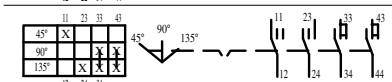
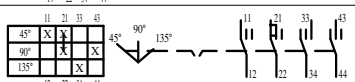
Wiring Diagram	Catalog Number	Wiring Diagram	Catalog Number
2-pole 4 position			
	**US1624-0044**		**US1624-0062**
	**US1624-0057**		**US1624-0065**
	**US1624-0058**		**US1624-0084**
2-pole 8 position			
	**US1628-0036**	—	—
3-pole 2 position			
	**US1632-0122**		**US1632-1153**
3-pole 3 position			
	**US1633-0136**		**US1633-1112**
	**US1633-0138**		**US1633-1120**
	**US1633-0144**		**US1633-1142**
	**US1633-0145**		**US1633-1155**
	**US1633-0161**		**US1633-1171**
	**US1633-0167**		**US1633-1202**
	**US1633-0199**		**US1633-1209**
	**US1633-1109**		**US1633-1210**

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Unicode® 2 Series 16 Amp Switches

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD

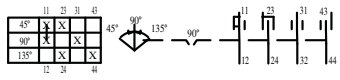
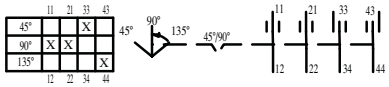
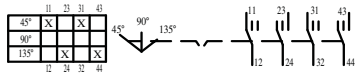
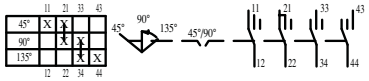
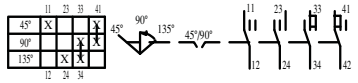
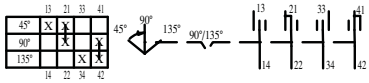
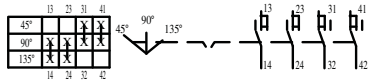
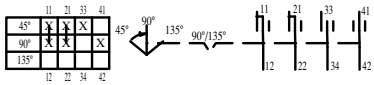
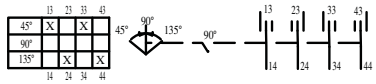
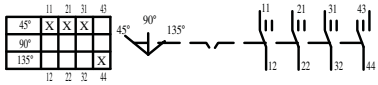
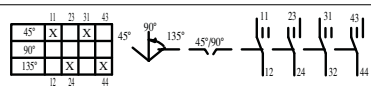
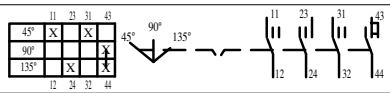
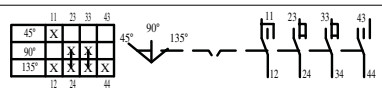
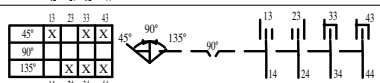
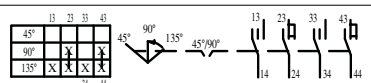
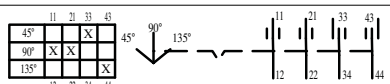
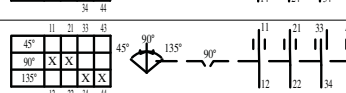
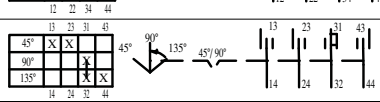
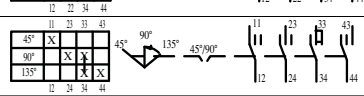
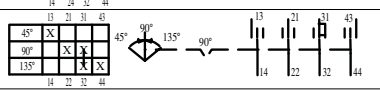
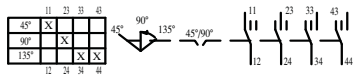
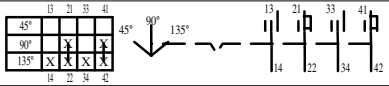
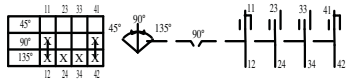
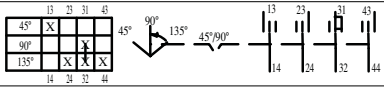
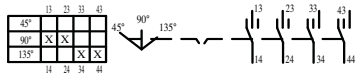
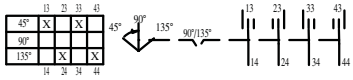
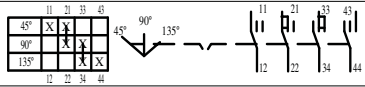
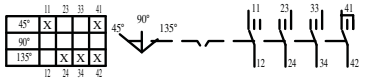
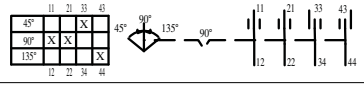
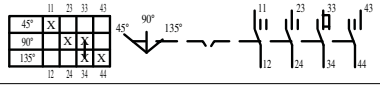
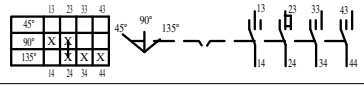
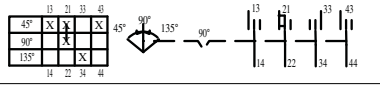
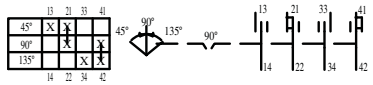
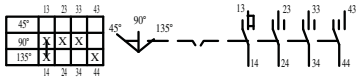
Wiring Diagram	Catalog Number	Wiring Diagram	Catalog Number
3-pole 3 position			
	**US1633-1230**	—	—
3-pole 4 position			
	**US1634-0146**		**US1634-0183**
	**US1634-0168**		**US1634-1119**
	**US1634-0178**		**US1634-1145**
	**US1634-0181**		**US1634-1151**
4-pole 2 position			
	**US1642-0102**		**US1642-0137**
	**US1642-0103**		**US1642-0152**
	**US1642-0104**		**US1642-0154**
	**US1642-0105**		**US1642-0173**
	**US1642-0106**		**US1642-1105**
	**US1642-0107**		**US1642-1122**
	**US1642-0116**		**US1642-1147**
	**US1642-0134**		**US1642-1162**
	**US1642-0135**		**US1642-1234**
4-pole 3 position			
	**US1643-0111**		**US1643-0113**
	**US1643-0112**		**US1643-0114**

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Unicode® 2 Series 16 Amp Switches

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD

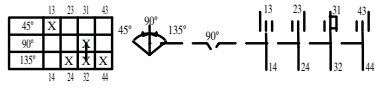
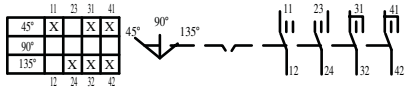
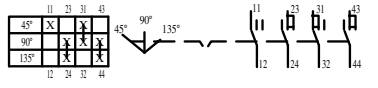
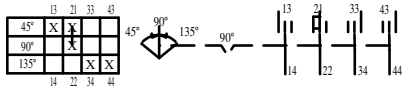
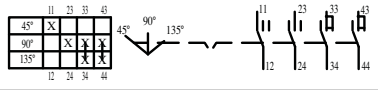
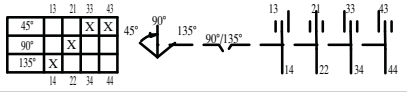
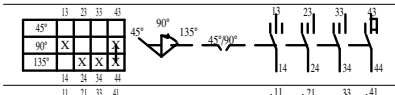
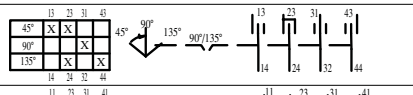
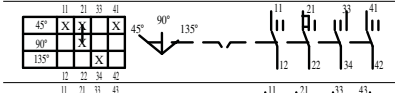
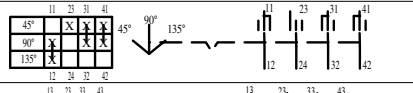
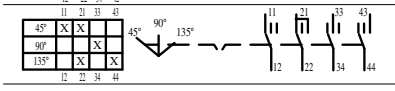
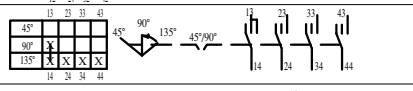
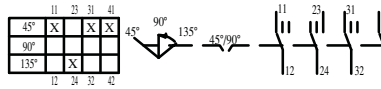
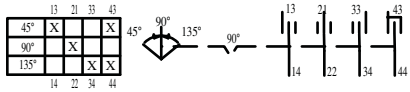
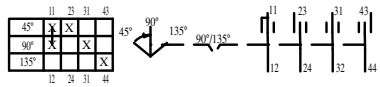
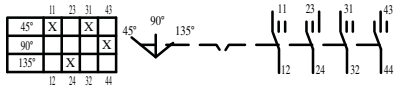
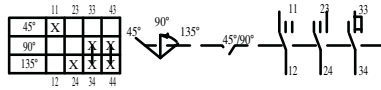
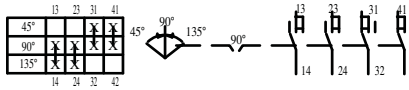
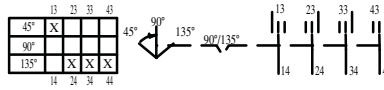
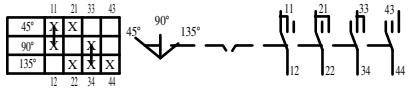
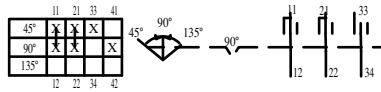
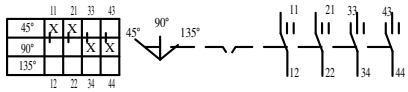
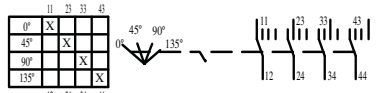
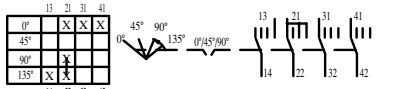
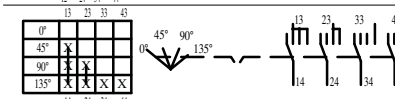
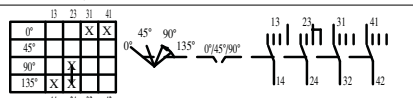
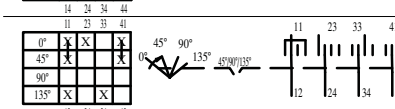
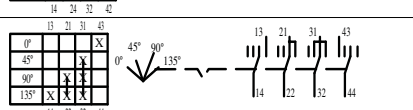
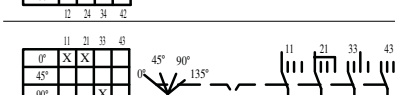
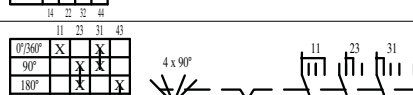
Wiring Diagram	Catalog Number	Wiring Diagram	Catalog Number
4-pole 3 position			
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	**US1643-0119**		**US1643-0170**
	**US1643-0120**		**US1643-0175**
	**US1643-0121**		**US1643-0176**
	**US1643-0127**		**US1643-0180**
	**US1643-0129**		**US1643-1103**
	**US1643-0131**		**US1643-1104**
	**US1643-0132**		**US1643-1106**
	**US1643-0133**		**US1643-1108**
	**US1643-0139**		**US1643-1111**
	**US1643-0140**		**US1643-1113**
	**US1643-0153**		**US1643-1116**
	**US1643-0157**		**US1643-1125**
	**US1643-0158**		**US1643-1129**
	**US1643-0159**		**US1643-1134**
	**US1643-0160**		**US1643-1138**
	**US1643-0162**		**US1643-1159**

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Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD

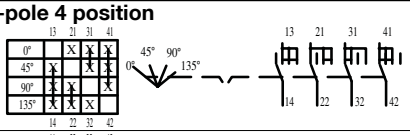
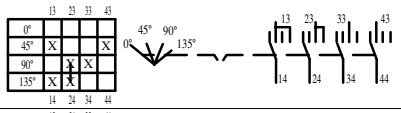
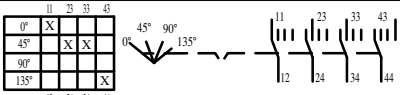
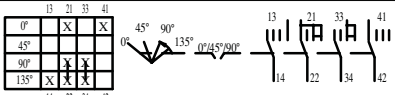
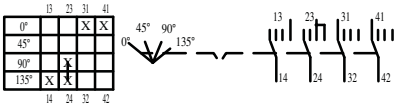
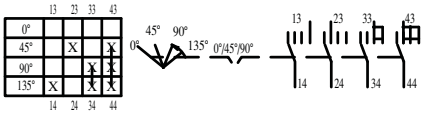
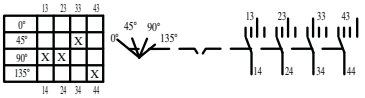
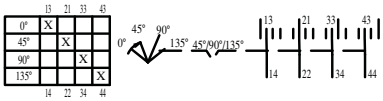
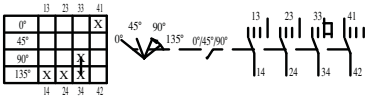
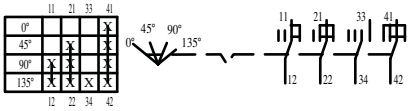
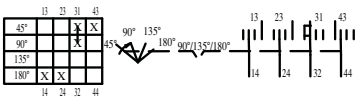
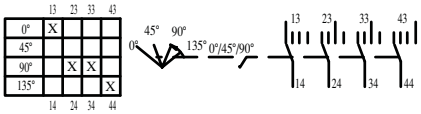
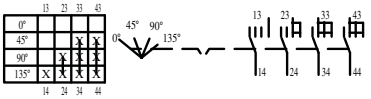
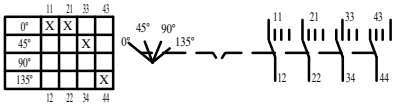
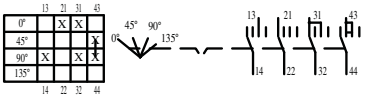
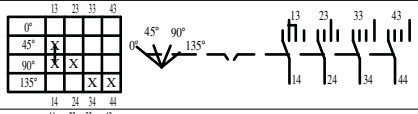
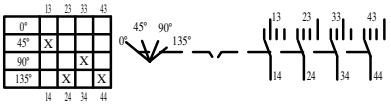
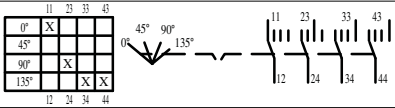
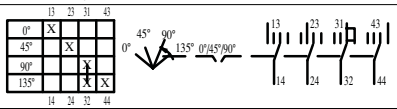
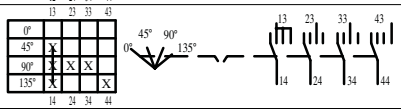
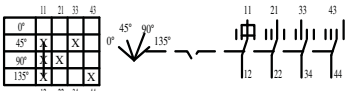
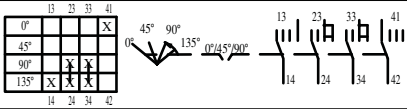
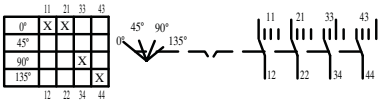
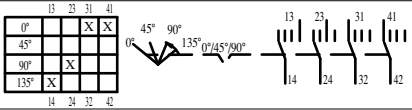
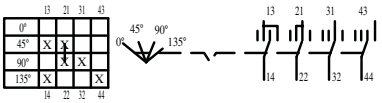
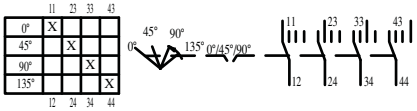
Wiring Diagram	Catalog Number	Wiring Diagram	Catalog Number
4-pole 3 position			
	**US1643-1165**		**US1643-1206**
	**US1643-1166**		**US1643-1208**
	**US1643-1167**		**US1643-1213**
	**US1643-1172**		**US1643-1215**
	**US1643-1173**		**US1643-1217**
	**US1643-1174**		**US1643-1220**
	**US1643-1176**		**US1643-1222**
	**US1643-1178**		**US1643-1225**
	**US1643-1179**		**US1643-1226**
	**US1643-1201**		**US1643-1232**
	**US1643-1203**		**US1643-9001**
4-pole 4 position			
	**US1644-0110**		**US1644-0147**
	**US1644-0123**		**US1644-0148**
	**US1644-0130**		**US1644-0150**
	**US1644-0143**		**US1644-0151**

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Components for Increased Safety Enclosures

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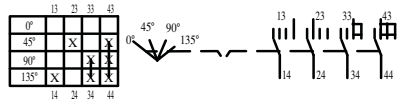
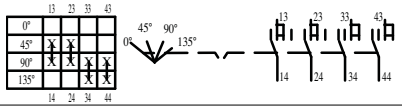
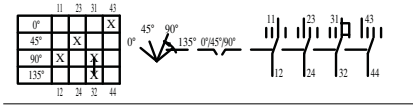
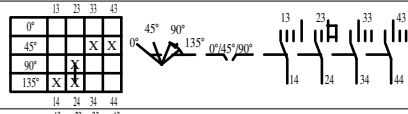
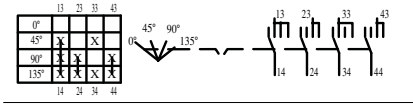
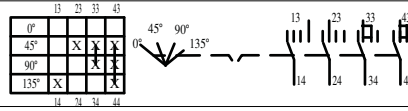
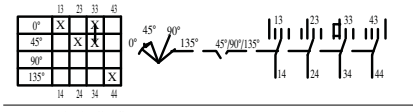
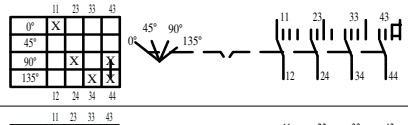
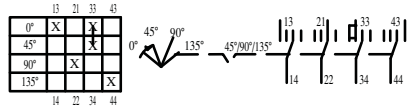
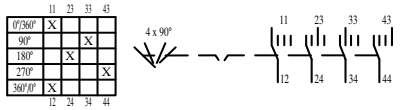
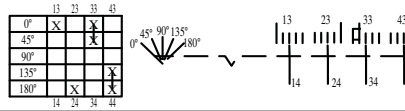
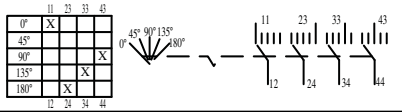
Wiring Diagram	Catalog Number	Wiring Diagram	Catalog Number
4-pole 4 position			
	**US1644-0155**		**US1644-1128**
	**US1644-0156**		**US1644-1132**
	**US1644-0164**		**US1644-1133**
	**US1644-0171**		**US1644-1136**
	**US1644-0198**		**US1644-1139**
	**US1644-0608**		**US1644-1143**
	**US1644-0611**		**US1644-1144**
	**US1644-0614**		**US1644-1146**
	**US1644-1102**		**US1644-1154**
	**US1644-1114**		**US1644-1156**
	**US1644-1115**		**US1644-1163**
	**US1644-1124**		**US1644-1164**
	**US1644-1127**		**US1644-1168**

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Wiring Diagram	Catalog Number	Wiring Diagram	Catalog Number
4-pole 4 position			
	**US1644-1169**		**US1644-1211**
	**US1644-1180**		**US1644-1212**
	**US1644-1204**		**US1644-1219**
	**US1644-1205**		**US1644-1224**
	**US1644-1207**		**US1644-1229**
4-pole 5 position			
	**US1645-1110**		**US1645-1235**

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Unicode® 2 Series Accessories

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 - IK10

Nameplates — Set of 10

Blank self-adhesive, laminated plastic 58 mm x 18 mm (2.28" x 0.71").

Color	Catalog Number
White (black letters)	**UNPW**
Yellow (black letters)	**UNPY**
Red (white letters)	**UNPR**
Blue (white letters)	**UNPB**
Black (white letters)	**UNPN**
Green (white letters)	**UNPG**

Inserts for Push Button — Set of 5

Marking	Color	Catalog Number
(unmarked)	Green	**UIAG**
(unmarked)	Red	**UIAR**
(unmarked)	Yellow	**UIAY**
(unmarked)	White	**UIAW**
(unmarked)	Blue	**UIAB**
(unmarked)	Black	**UIAN**
ON	Green	**UIA01**
OFF	Red	**UIA02**
START	Green	**UIA03**
STOP	Red	**UIA04**
MARCHE	Green	**UIA05**
ARRET	Red	**UIA06**
I	Green	**UIA07**
O	Red	**UIA08**

Inserts for Illuminated Push Button — Set of 5

Marking	Color	Catalog Number
(unmarked)	Green	**UILG**
(unmarked)	Red	**UILR**
(unmarked)	Yellow	**UILY**
(unmarked)	White	**UILW**
(unmarked)	Blue	**UILB**
ON	Green	**UIL01**
OFF	Red	**UIL02**
START	Green	**UIL03**
STOP	Red	**UIL04**
MARCHE	Green	**UIL05**
ARRET	Red	**UIL06**
I	Green	**UIL07**
O	Red	**UIL08**

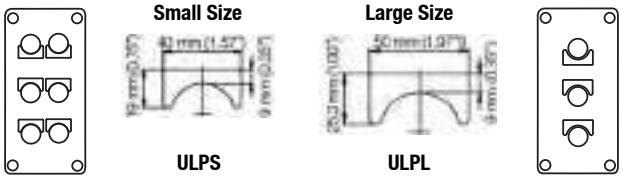
Spare Key

For all key-operated buttons.

Description	Catalog Number
Spare key type 4 A 185	**SK4A185**

Standard Legend Plates

Two sizes available. Self-adhesive yellow laminated plastic (black lettering).



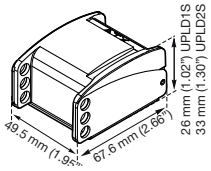
Text	Catalog Number Small	Large
Blank (set of 10)	**ULPS**	**ULPL**
ON	**ULPSA01**	**ULPLA01**
OFF	**ULPSA02**	**ULPLA02**
FORWARD	**ULPSA03**	**ULPLA03**
REVERSE	**ULPSA04**	**ULPLA04**
JOG	**ULPSA05**	**ULPLA05**
RUN	**ULPSA06**	**ULPLA06**
START	**ULPSA07**	**ULPLA07**
STOP	**ULPSA08**	**ULPLA08**
UP	**ULPSA09**	**ULPLA09**
DOWN	**ULPSA10**	**ULPLA10**
FAST	**ULPSA11**	**ULPLA11**
SLOW	**ULPSA12**	**ULPLA12**
RAISE	**ULPSA13**	**ULPLA13**
LOWER	**ULPSA14**	**ULPLA14**
OPEN	**ULPSA15**	**ULPLA15**
CLOSE	**ULPSA16**	**ULPLA16**
LOW	**ULPSA17**	**ULPLA17**
HIGH	**ULPSA18**	**ULPLA18**
TEST	**ULPSA19**	**ULPLA19**
RESET	**ULPSA20**	**ULPLA20**
EMERGENCY STOP	**ULPSA21**	**ULPLA21**
MARCHE	**ULPSA22**	**ULPLA22**
ARRET	**ULPSA23**	**ULPLA23**
ARRET D'URGENCE	**ULPSA24**	**ULPLA24**
HAUT	**ULPSA25**	**ULPLA25**
BAS	**ULPSA26**	**ULPLA26**
O—I	**ULPSH01**	**ULPLH01**
ON—OFF	**ULPSH02**	**ULPLH02**
START—STOP	**ULPSH03**	**ULPLH03**
STOP—START	**ULPSH04**	**ULPLH04**
HAND—AUTO	**ULPSH05**	**ULPLH05**
MANU—AUTO	**ULPSH06**	**ULPLH06**
FORWARD—REVERSE	**ULPSH07**	**ULPLH07**
REMOTE—LOCAL	**ULPSH08**	**ULPLH08**
MARCHE—ARRET	**ULPSH09**	**ULPLH09**
I—O—II	**ULPSJ01**	**ULPLJ01**
OFF—O—ON	**ULPSJ02**	**ULPLJ02**
START—NORMAL—STOP	**ULPSJ03**	**ULPLJ03**
HAND—OFF—AUTO	**ULPSJ04**	**ULPLJ04**
MANU—O—AUTO	**ULPSJ05**	**ULPLJ05**
FORWARD—OFF—REVERSE	**ULPSJ06**	**ULPLJ06**
LOCAL—REMOTE—AUTO	**ULPSJ07**	**ULPLJ07**
LOCAL—O—REMOTE	**ULPSJ08**	**ULPLJ08**
MARCHE—NORMAL—ARRET	**ULPSJ09**	**ULPLJ09**

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Unicode® 2 Series Accessories

Components for Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
IP66 - IK10

	Description	Catalog Number
	**Yellow Guard** Mushroom head protection for emergency stop	**098657**
	**Padlockable Guard** Stainless steel and plastic cover, capacity: 3 padlocks, 6 mm (0.24") maximum diameter (not supplied) For push button and rotary actuator   For mushroom head actuator 	**UPLD1S** **UPLD2S**
	**Cover Blanking Plug** For cover drilling — 30.5 mm (1.2”) diameter	**UBP**
	**Device Adaptor** Rail to panel mounted conversion adaptor	**UPMA**

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A.T.X.® FU40 Series Fuse Carrier

Components for Increased Safety Enclosures

ATEX/IEC:
Zone 1 and 2
Ⓔx II 2 G

NBR IEC:
Zone 1 and 2
Ex de IIC Gb

Applications

- Useful as back-up fuse protection or as main fuse protection for hazardous locations.
- Can be fitted inside increased safety Ex e enclosures.



Features

- For 14 mm x 51 mm (0.55" x 2.01") cylindrical cartridge fuse 16A gG Max. and 40 A aM Max.
- Adaptor which clips onto EN 50 022 and EN 50 035 rail.
- Connection via 2 mm^2 x 10 mm^2 (0.0031 in^2 x 0.0155 in^2) terminals.

Standard Material

- Polyamide

ATEX/IEC Certifications and Compliances

- Certification Type FU40
- Gas, Zones 1 and 2
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
  - — ATEX/IEC Protection: Ex de IIC
  - — Service Temperature: -40 °C to +120 °C (-40 °F to + 248 °F)
  - — CE Declaration of Conformity: 5C207
  - — ATEX Certificate: LCIE 02 ATEX 0003U
  - — IEC Certificate: LCIE Ex 02.021U
- Ex Standards: EN/IEC 60079-0; 60079-1; 60079-7
- Product Standards: EN/IEC 60947-1; 60947-3
- Other Standards: EN/IEC 60529 (IP)

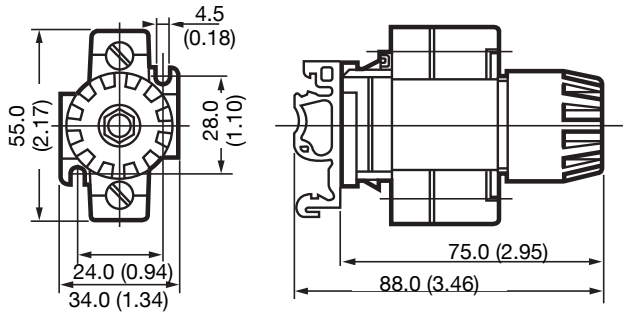
NBR IEC Brazilian Certifications and Compliances

- Certification Type FU40
  - — Gas: Zones 1 and 2
  - — IEC Marking: Ex de IIC Gb
  - — Ambient Temperature: -40 °C to +120 °C (-40 °F to + 248 °F)
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 11.0593-U

Weight kg (lb)	Volume dm^3 (in^3)	Fuse Size mm (in)	Catalog Number	
			IECEx	NBR IEC
0.1 (0.22)	0.4 (24.4)	14 x 51 (0.55 x 2.01)	**FU40**	**NFU40**

Dimensions in Millimeters (Inches)

Fuse Carrier



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A.T.X.® D Series Aluminum Control Stations

Flameproof

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 – IK10

NBR IEC ①:
Zone 1 and 2
Ex d IIC T6/T5 Gb/Ex tb IIIC Db
IP66

Applications

- Local control stations for use in hazardous areas.
- Control of electrical equipment at power plants, chemical and petrochemical plants, petroleum- refineries, pulp and paper processing plants and various industrial applications.

Features

- 1 and 2 Function Ex d IIC:
  - — Supplied with actuators, contact blocks and pilot lights.
  - — TS35 rail mounted contact blocks.
  - — Threaded flameproof joint.
  - — Connection: 2 x 2.5 mm^2 (0.004 in^2) maximum.
  - — Internal earth: 2 x 4 mm^2 (0.006 in^2).
  - — External ground: M5
  - — 1 x M20 or M25 threaded entry at bottom.
  - — Cable glands and plugs to be ordered separately.
- 2 and 3 Function Exd IIB:
  - — Supplied with actuators and rail mounting pilot lights and contact blocks.
  - — Flanged flameproof joint.
  - — Yellow laminated plastic legend plate with black lettering.
  - — Connection : 2 x 2.5 mm^2 (0.004 in^2) maximum.
  - — Internal earth: 2 x 4 mm^2 (0.006 in^2).
  - — External earth: M6 screw.
  - — 2 x M20 threaded entries at the bottom.
  - — Cable glands and plugs to be ordered separately.

Standard Materials

- Box: gray painted marine grade aluminum alloy

Options

- For other configurations, see pre-drilled control stations or consult factory.

ATEX/IEC Certifications and Compliances

- Certification Type BR1d
  - — Gas, Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex d IIC
    - – T Rating: T6 for Ta = +40 °C (+104 °F), T5 for Ta = +55 °C (+131 °F)
  - — Dust, Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T95 °C (T203 °F)
  - — Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
  - — CE Declaration of Conformity: 20530
  - — ATEX Certificate: LCIE 02 ATEX 6056
  - — IEC Certificate: LCIE Ex 02.005
- Certification Type CF2D
  - — Gas, Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex d IIB
    - – T Rating: T6 for Ta ≤ +40 °C (+104 °F), T5 for +40 °C < Ta ≤ +55 °C (+104 °F < to +131 °F)
  - — Dust, Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T95 °C (T203 °F)
  - — Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
  - — CE Declaration of Conformity: 50254
  - — ATEX Certificate: LCIE 03 ATEX 6061X
  - — IEC Certificate: LCIE Ex 03.006X
- Other Certifications: GOST R
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Internal Volume: ≤ 2 dm^3 (2 liters)
- Ex Standards: EN/IEC 60079-0; 60079-1; 61241-0; 61241-1
- Product Standards: EN/IEC 60947-1; 60947-5
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances ①

- Ex d IIC Limit Switch
  - — Certification Type BR1d
    - – Gas: Zones 1 and 2
      - – IEC Marking: Ex d IIC Gb
      - – Ambient temperature: -40 °C to +55 °C (-40 °F to +131 °F) T5/T6
    - – Dust: Zone 21 and 22
      - – IEC Marking: Ex tb IIIC Db
  - — INMETRO Ordinance: 179
  - — INMETRO Certificate: BVC 11.0482
  - — Ingress Protection: IP66
  - — Impact Resistance (shock): IK10
  - — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
  - — Other Standards: ABNT NBR IEC 60529 (IP)


1 Function


2 Function


2 Function


3 Function

① Only the Ex d IIC Limit Switch is available with NBR IEC Brazilian Certifications and Compliances.

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A.T.X.® D Series Aluminum Control Stations

Flameproof

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 – IK10

	Type	Description/Function	Bottom Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR IEC
1 Function Ex d IIC Control Stations							
	Spring Return Push Button						
	BR1d	1x black spring return push button with 1NO + 1NC momentary contacts	1 x M20	1.0 (2.20)	3.75 (24.41)	**DA1W1T101**	—
	BR1d	1x black spring return push button with 1NO + 1NC momentary contacts	1 x M25	1.0 (2.20)	3.75 (24.41)	**DA1W3T101**	—
	Mushroom Head Push Button						
	BR1d	1x red mushroom head push-pull with 1NO + 1NC maintained contacts Padlockable in both positions	1 x M20	1.2 (2.65)	3.75 (24.41)	**DA1W1T102**	—
	BR1d	1x red mushroom head push-pull with 1NO + 1NC maintained contacts Padlockable in both positions	1 x M25	1.2 (2.65)	3.75 (24.41)	**DA1W3T102**	—
	BR1d	Red mushroom head key release with 1NO + 1NC maintained contact Unlocked with key (MS1)	1 x M20	1.2 (2.65)	3.75 (24.41)	**DA1W1T104**	—
	BR1d	Red mushroom head key release with 1NO + 1NC maintained contact Unlocked with key (MS1)	1 x M25	1.2 (2.65)	3.75 (24.41)	**DA1W3T104**	—
	Time Delayed Push Button 230 V 50/60 Hz						
	BR1d	1x time delayed black impulse push button adjustable from 25s to 15mn For 1000 W incandescent or 400 W fluorescent max.	1 x M20	1.2 (2.65)	3.75 (24.41)	**DA1W1T103**	—
	BR1d	1x time delayed black impulse push button adjustable from 25 s to 15 mn For 1000 W incandescent or 400 W fluorescent max.	1 x M25	1.2 (2.65)	3.75 (24.41)	**DA1W3T103**	—
	Twin Push Buttons						
	BR1d	1x green spring return 'I' push button with 1NO momentary contact 1x red spring return '0' push button with 1NC momentary contact	1 x M20	1.2 (2.65)	3.75 (24.41)	**DA1W1T201**	—
	BR1d	1x green spring return 'I' push button with 1NO momentary contact 1x red spring return '0' push button with 1NC momentary contact	1 x M25	1.2 (2.65)	3.75 (24.41)	**DA1W3T201**	—
2 Function Ex d IIB Control Stations							
	Twin Push Buttons						
	CF2D	1x green spring return 'I' push button with 1NO momentary contact 1x red spring return '0' push button with 1NC momentary contact	2 x M20	2.5 (5.51)	7.00 (427.17)	**DA2W2T201**	—
	CF2D	1x green spring return 'I' push button with 1NO momentary contact 1x red mushroom head push-pull with 1NO+1NC maintained contacts	2 x M20	2.5 (5.51)	7.00 (427.17)	**DA2W2T202**	—

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A.T.X.® D Series Aluminum Control Stations

Flameproof

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 – IK10

NBR IEC ①:
Zone 1 and 2
Ex d IIC T6/T5 Gb
IP66

	Type	Description/Function	Bottom Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR IEC
3 Function Ex d IIB Control Stations							
	Pilot Light and Twin Push Buttons						
	CF2D	1x red/green LED light 85 to 264 Vac 1x green spring return 'I' push button with 1NO momentary contact 1x red spring return '0' push button with 1NC momentary contact	2 x M20	3.3 (7.28)	9.00 (549.21)	**DA5W2T301**	—
	Ammeter and Twin Push Buttons						
	CF2D	1x ammeter 48 x 48 CT1A 3 x FLC 0-1-3A 1x green spring return 'I' push button with 1NO momentary contact 1x red spring return '0' push button with 1NC momentary contact	2 x M20	3.3 (7.28)	9.00 (549.21)	**DA5W2T302**	—
Ex d IIC Limit Switch ①							
	Limit Switch *Stainless steel roller control perpendicular for surface fixing. 1/4 turn fixing (may be modified by end user).*						
	BR1d	1x roller plunger - travel 7 mm max. - Force 22 newtons with 1NO+1NC momentary contacts	1 x M20	1.0 (2.20)	4.60 (280.71)	**DA1W1L001**	**NDA1W1L001**
	BR1d	1x roller plunger - travel 7 mm max. - Force 22 newtons with 1NO+1NC momentary contacts	1 x M25	1.0 (2.20)	4.60 (280.71)	**DA1W3L001**	**NDA1W3L001**

Technical Data

Contact Block	
Insulation Voltage (Ui)	500 V
Switching Capacity	
AC 15	4 A/115 V, 4 A/230 V, 2 A/500 V
DC 13	3 A/24 V, 1.7 A/42 V, 1.2 A/60 V, 0.8 A/110 V, 0.3 A/220 V
Terminal connections	0.75 to 2.5 mm² (0.001 to 0.004 in²)
Operation life	>5,000,000 Operations

Light Switch	
Insulation Voltage (Ui)	500 V
Switching Capacity	
AC 15	450 W/48 V, 900 W/110 V, 1900 W/230 V
DC 13	100 W/48 V, 100 W/110 V, 95 W/230 V
Terminal connections	0.75 to 2.5 mm² (0.001 to 0.004 in²)
Operation life	> 1,000,000 Operations

LED Pilot Light	
Rated Voltage	85 Vac to 264 Vac, 50/60 Hz
Rating	5-15 mA
Max. Power	0.33 W
Operation life	Average 100,000 Hours at +25 °C (+77 °F)

① *The Ex d IIC Limit Switch is available with NBR IEC Brazilian Certifications and Compliances.*

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A.T.X.® D Series Aluminum Control Stations

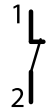
Flameproof

Electrical Diagrams

NO Contact Block



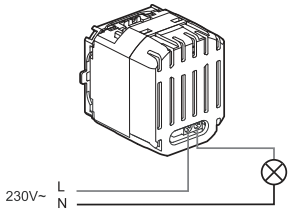
NC Contact Block



LED Pilot Light

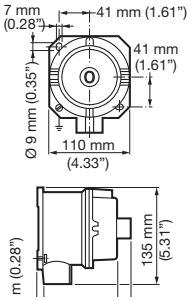


Time Delayed Push Button

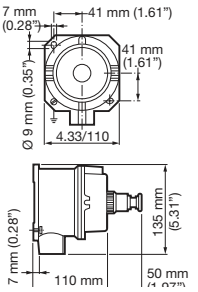


Dimensions in Millimeters (Inches)

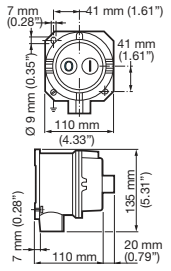
1 Function



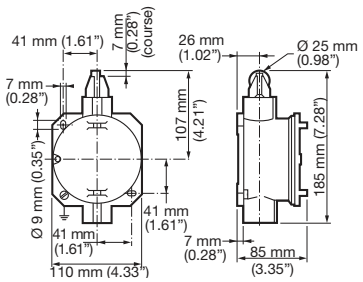
1 Function Emergency Stop



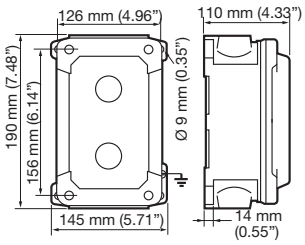
2 Functions



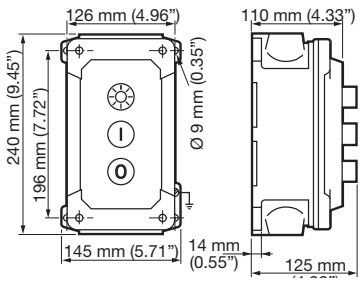
Limit Switch



2 Functions



3 Functions



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Nutsteel® NECCS Series Pre–Drilled Aluminum Control Stations

Explosionproof

NBR IEC:
Zones 1 and 2, 21 and 22
Ex d IIB Gb
Ex tb IIIB Db
IP65



Applications

- Suitable for use in environments where there is risk of explosion, such as:
  - — Chemical manufacturing
  - — Petrochemicals manufacturing
  - — Paint and varnish manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing facilities

Features

- Cover fixed to the body by screws, flat and lock washers.
- Ex d protection: enclosure is designed to prevent an internal explosion from propagating into the external environment.
- To assure the appropriate level of safety, preventing the propagation of the explosion through the gap, we recommend securing the cover with all of the screws and the torque specified.
- Standard version comes with two NPT threaded hubs.

Standard Material

- Enclosure body and cover: aluminum alloy
- Screws and washers: AISI 304 stainless steel
- Blanking plugs: aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NECCS003**B**C.
- For Metric threads, replace the letter **N** with the letter **M** in the 9th position; example: NECCS003**M**C.

NBR IEC Brazilian Certifications and Compliances

- Temperature Class: T6
- Ingress Protection: IP65
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- Certificate of Compliance: TUV 12.0431
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

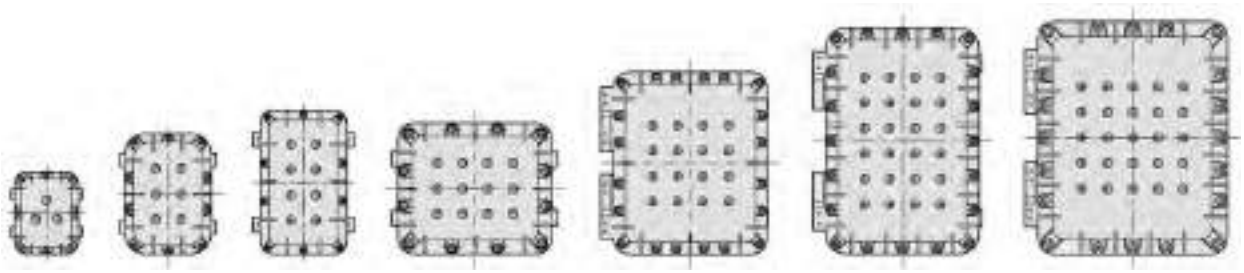
- For control operators see *Controls: Nutsteel NECS Series Ex d Control Operators.*

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Nutsteel® NECCS Series Pre–Drilled Aluminum Control Stations

Explosionproof

NBR IEC:
Zones 1 and 2, 21 and 22
Ex d IIB Gb
Ex tb IIIB Db
IP65

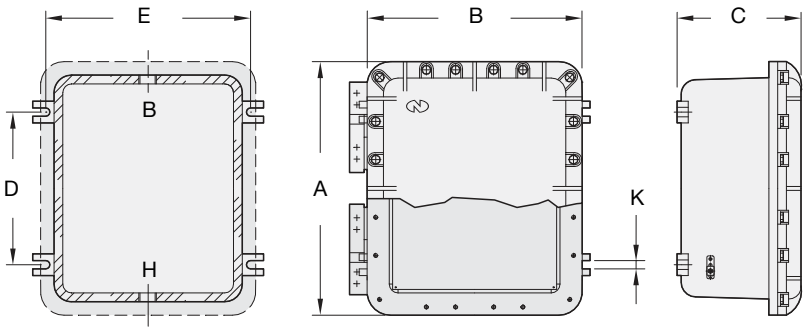


Ø Threads B – H	Holes on Cover M22 x 1.5	Terminal Blocks 2.5 mm² (0.004 in²) ②③	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
3/4”	3	6 SAK+1 EK	3.20 (7.05)	4.00 (244.10)	**NECCS003NC**
3/4”	6	12 SAK+1 EK	6.50 (14.33)	10.00 (610.24)	**NECCS006NC**
1”	8	16 SAK+1 EK	8.00 (17.64)	12.00 (732.29)	**NECCS008NC**
1-1/2”	12	24 SAK+1 EK	15.80 (34.83)	25.60 (1562.21)	**NECCS012NC**
1-1/2”	16	32 SAK+1 EK	23.00 (50.71)	36.00 (2196.86)	**NECCS016NC**
2”	24	48 SAK+1 EK	28.70 (63.27)	44.30 (2703.35)	**NECCS024NC**
2”	25	50 SAK+1 EK	46.40 (102.29)	75.30 (4595.09)	**NECCS025NC**
3/4”	3	-	3.20 (7.05)	4.00 (244.10)	**NECCS003NS**
3/4”	6	-	6.50 (14.33)	10.00 (610.24)	**NECCS006NS**
1”	8	-	8.00 (17.64)	12.00 (732.29)	**NECCS008NS**
1-1/2”	12	-	15.80 (34.83)	25.60 (1562.21)	**NECCS012NS**
1-1/2”	16	-	23.00 (50.71)	36.00 (2196.86)	**NECCS016NS**
2”	24	-	28.70 (63.27)	44.30 (2703.35)	**NECCS024NS**
2”	25	-	46.40 (102.29)	75.30 (4595.09)	**NECCS025NS**

① Only (Ex) NECS control operators should be used with NECS Series Control Stations.
② SAK = Terminal unipolar wire 0.5 to 2.5 mm² (0.0007 in² to 0.004 in²).
③ EK = Terminal unipolar grounding wire from 0.5 to 4 mm² (0.0007 in² to 0.006 in²).

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Dimensions



	Dimensions in Millimeters (Inches)						Screws	
Catalog Number	A	B/H ①	C	D	E	K	Torque kgf.m (lbf.in)	Hex Head
NECCS003NC	195 (7.68)	150 (5.91)	135 (5.31)	100 (3.94)	205 (8.07)	11 (0.43)	0.50 (43.40)	7/16”
NECCS006NC	285 (11.22)	205 (8.07)	170 (6.69)	160 (6.30)	205 (8.07)	11 (0.43)	0.50 (43.40)	7/16”
NECCS008NC	340 (13.39)	205 (8.07)	170 (6.69)	200 (7.87)	205 (8.07)	11 (0.43)	0.50 (43.40)	7/16”
NECCS012NC	310 (12.20)	365 (14.37)	210 (8.27)	140 (5.51)	240 (9.45)	11 (0.43)	1.50 (130.19)	9/16”
NECCS016NC	430 (16.93)	365 (14.37)	210 (8.27)	260 (10.24)	340 (13.39)	11 (0.43)	1.50 (130.19)	9/16”
NECCS024NC	535 (21.06)	365 (14.37)	210 (8.27)	365 (14.37)	340 (13.39)	13 (0.51)	1.50 (130.19)	9/16”
NECCS025NC	550 (21.65)	450 (17.72)	285 (11.22)	320 (12.60)	420 (16.54)	16 (0.63)	1.50 (130.19)	9/16”
NECCS003NS	195 (7.68)	150 (5.91)	135 (5.31)	100 (3.94)	205 (8.07)	11 (0.43)	0.50 (43.40)	7/16”
NECCS006NS	285 (11.22)	205 (8.07)	170 (6.69)	160 (6.30)	205 (8.07)	11 (0.43)	0.50 (43.40)	7/16”
NECCS008NS	340 (13.39)	205 (8.07)	170 (6.69)	200 (7.87)	205 (8.07)	11 (0.43)	0.50 (43.40)	7/16”
NECCS012NS	310 (12.20)	365 (14.37)	210 (8.27)	140 (5.51)	240 (9.45)	11 (0.43)	1.50 (130.19)	9/16”
NECCS016NS	430 (16.93)	365 (14.37)	210 (8.27)	260 (10.24)	340 (13.39)	11 (0.43)	1.50 (130.19)	9/16”
NECCS024NS	535 (21.06)	365 (14.37)	210 (8.27)	365 (14.37)	340 (13.39)	13 (0.51)	1.50 (130.19)	9/16”
NECCS025NS	550 (21.65)	450 (17.72)	285 (11.22)	320 (12.60)	420 (16.54)	16 (0.63)	1.50 (130.19)	9/16”

① *NPT threads standard in BH position, as shown. For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NECCS003**B**C. For Metric threads, replace the letter **N** with the letter **M** in the 9th position; example: NECCS003**M**C.*

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Nutsteel® NECCS Series Pre–Drilled Aluminum Control Stations

Explosionproof

NBR IEC:
Zones 1 and 2, 21 and 22
Ex d IIB Gb
Ex tb IIIB Db
IP65

Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NECCS025NS-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 1		Step 2		Step 3
NECCS025NS	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

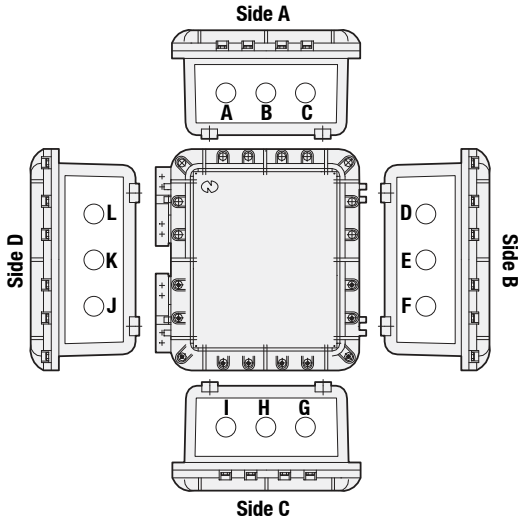
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50
07M	M63
08M	M75
09M	M90
10M	M100

Hole and Enclosure Side Locations



Thread Equivalence

NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

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Nutsteel® NEBC Push Button Emergency Stop Control Station

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex de IIC Gb
Ex tb IIIC Db
IP66

Applications

- Used in areas where there is a risk of explosion; in industries such as:
  — Chemical manufacturing
  — Petrochemicals manufacturing
  — Paint and varnish manufacturing
  — Pharmaceutical manufacturing
  — Food processing facilities

Features

- Supplied complete with box, cover, O-Ring and components.
- Comes standard with two Ø 3/4" NPT threaded hubs, top and bottom.
- Control buttons and switches 10 Amp, 500 Vac.
- Standard indicator light: 220 V or 130 V, depending on the model.
- Supplied with external ground terminal for cables up to 25 mm^2 (0.039 in^2).
- Indicator light supplied complete with BA9s-type LED, 20 mA-130 V.
- Rotary switch and alarm control stations utilize a high cover. All other control stations utilize a smooth, flat cover.
- Drilling covers M22 x 1.5 mm (0.059").
- Button with key component supplied with two keys.
- Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.
- "Ex d" protection: equipment designed and built so that even if an explosion occurs within the device, it does not propagate to the outside environment.
- "Ex e" protection (increased safety): equipment designed and built so that none of its components will cause sparks or hot surfaces, avoiding the risk of explosion when installed in areas classified as Zones 1 and 2.

Standard Material

- Housing: copperfree, die cast aluminum
- Screws and washers: AISI 304 stainless steel
- O-Rings: silicon

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NEBCA101**B**.
- For Metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NEBCA101**M**.
- When assembling with an increased safety NACAJ junction box, replace the letter **N** with the letters **SA**, in the 9th position; example: NEBCC207**SA**.

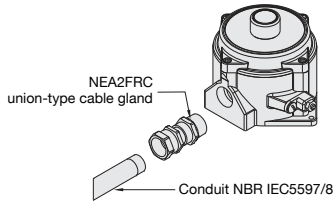
NBR IEC Brazilian Certifications and Compliances

- T Rating: T6
- Ingress Protection: IP66
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-7; 60079-31
- INMETRO Ordinance: 179
- INMETRO Certificate: TUV 11.0083; TUV 11.0084
- Other Standards: ABNT NBR IEC 60529 (IP)

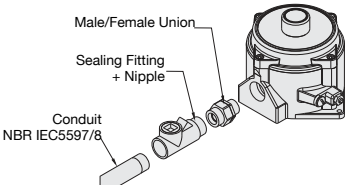


Installation and Assembly (components sold separately)

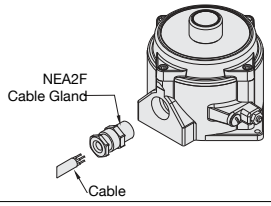
With Conduit + Union–type cable glands — Ex d



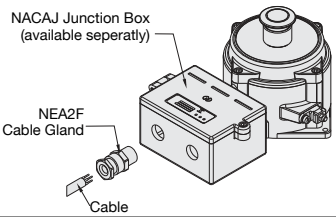
With Conduit and Sealing Fittings — Ex d



With NEA2F Cable Glands — Without Conduit — Ex d



With Increased–Safety Box — Ex de



Related Products

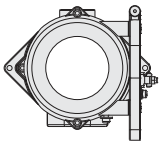
- NEBC control stations can be used in conjunction with NACAJ increased safety junction boxes. For more information on the NACAJ Series, see *Enclosures and Junction Boxes*.

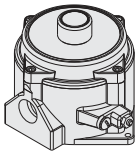
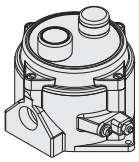
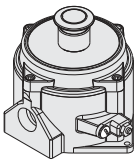
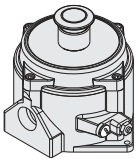
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Nutsteel® NEBC Push Button Emergency Stop Control Station

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex de IIC Gb
Ex tb IIIC
IP66

	Ø Threads	Type	Button	Symbol	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Alarm Button —10 A, 500 Vca							
	3/4”	Automatic Device ②	Push Button VM/1NF		160 (3.53)	2.65 (161.71)	**NEBCA101N**
	3/4”	Automatic Device ②	Push Button VM/1NA+1NF		160 (3.53)	2.65 (161.71)	**NEBCA102N**
	3/4”	Manual Device ③	Push Button VM/1NA		1.70 (3.75)	2.65 (161.71)	**NEBCA103N**
	3/4”	Manual Device ③	Push Button VM/1NA+1NF		1.70 (3.75)	2.65 (161.71)	**NEBCA104N**
	3/4”	Manual Device ③	Emergency with Lock VM/1NA		1.70 (3.75)	2.65 (161.71)	**NEBCA105N**
	3/4”	Manual Device ③	Emergency Button with Lock M/1NA+1NF		1.70 (3.75)	2.65 (161.71)	**NEBCA106N**

	Ø Threads	Type	Color	Voltage (V)	Contact	Symbol	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Push Button Control —10 A, 500 Vca									
	3/4”	Push Button	Green	500	1NA		1.10 (2.43)	2.28 (139.13)	**NEBCC201N**
	3/4”	Push Button	Green	500	1NA+1NF		1.10 (2.43)	2.28 (139.13)	**NEBCC202N**
	3/4”	Push Button	Red	500	1NF		1.10 (2.43)	2.28 (139.13)	**NEBCC203N**
	3/4”	Push Button	Red	500	1NA+1NF		1.10 (2.43)	2.28 (139.13)	**NEBCC204N**
	3/4”	Push Button	Green (1) Red (1)	500	1NA 1NF		1.25 (2.76)	2.28 (139.13)	**NEBCC205N**
	3/4”	Push Button	Green (1) Red (1)	500	1NA+1NF 1NA+1NF		1.25 (2.76)	2.28 (139.13)	**NEBCC206N**
Emergency Button with Lock —10 A, 500 Vca									
	3/4”	Emergency Button	Red	500	1NF		1.25 (2.76)	2.61 (159.27)	**NEBCC207N**
	3/4”	Emergency Button	Red	500	1NA+1NF		1.25 (2.76)	2.61 (159.27)	**NEBCC208N**
Emergency Button with Lock and Push Button —10 A, 500 Vca									
	3/4”	Emergency Button (1) Push Button (1)	Green Red	500	1NA 1NF		1.25 (2.76)	2.61 (159.27)	**NEBCC209N**
	3/4”	Emergency Button (1) Push Button (1)	Green Red	500	1NA+1NF 1NA+1NF		1.25 (2.76)	2.61 (159.27)	**NEBCC210N**

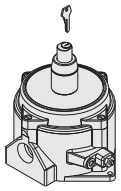
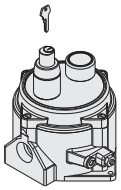
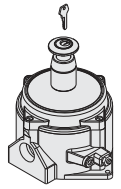
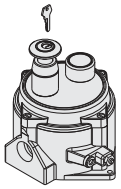
*① For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NEBCA101**B**.*
*For Metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NEBCA101**M**.*
② Breaking glass activates the button — in case of emergency, the operator breaks the glass with the hammer and the button is activated automatically.
③ Breaking glass does not activate the button — in case of emergency, the operator breaks the glass with the hammer and pushes the button.

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Nutsteel® NEBC Push Button Emergency Stop Control Station

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex de IIC Gb
Ex tb IIIC
IP66

	Ø Threads	Type	Color	Voltage (V)	Contact	Symbol	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Control Button with Key —10 A, 500 Vca									
	3/4”	Button with Key	—	500	1NF		1.25 (2.76)	3.18 (194.06)	**NEBCC211N**
	3/4”	Button with Key	—	500	1NA+1NF		1.25 (2.76)	3.18 (194.06)	**NEBCC212N**
Control Button with Key+ Push Button —10 A, 500 Vca									
	3/4”	Push Button (1) Button with Key (1)	Green —	500	1NA 1NF		1.25 (2.76)	3.18 (194.06)	**NEBCC213N**
	3/4”	Push Button (1) Button with Key (1)	Green —	500	1NA+1NF		1.25 (2.76)	3.18 (194.06)	**NEBCC214N**
Emergency Button with Key —10 A, 500 Vca									
	3/4”	Emergency Button with Key	Red	500	1NF		1.25 (2.76)	3.18 (194.06)	**NEBCC215N**
	3/4”	Emergency Button with Key	Red	500	1NA+1NF		1.25 (2.76)	3.18 (194.06)	**NEBCC216N**
Emergency Button with Key and Push Button —10 A, 500 Vca									
	3/4”	Push Button (1) Emergency Button with Key (1)	Green Red	500	1NA 1NF		1.25 (2.76)	3.18 (194.06)	**NEBCC217N**
	3/4”	Push Button (1) Emergency Button with Key (1)	Green Red	500	1NA+1NF 1NA+1NF		1.25 (2.76)	3.18 (194.06)	**NEBCC218N**

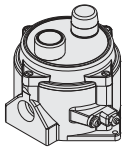
① *For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NEBCA101**B**.*
*For Metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NEBCA101**M**.*

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Nutsteel® NEBC Push Button Emergency Stop Control Station

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex de IIC Gb
Ex tb IIIC
IP66

	Ø Threads	Type	Color	Voltage (V)	Contact	Symbol	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Push Button Control and Indicator Light —10 A, 500 Vca									
	3/4”	Indicator Light (1) Push Button (1)	Green Red	130 500	— 1NF		1.25 (2.76)	2.28 (139.13)	**NEBCC219N**
	3/4”	Indicator Light (1) Push Button (1)	Green Red	130 500	— 1NA		1.25 (2.76)	2.28 (139.13)	**NEBCC220N**
	3/4”	Indicator Light (1) Push Button (1)	Green Red	130 500	— 1NA+1NF		1.25 (2.76)	2.28 (139.13)	**NEBCC221N**
	3/4”	Indicator Light (1) Push Button (1)	Green Red	130 500	— 1NA+1NF		1.25 (2.76)	2.28 (139.13)	**NEBCC222N**
	3/4”	Indicator Light (1) Push Button (1)	Green Red	220 500	— 1NF		1.25 (2.76)	2.28 (139.13)	**NEBCC223N**
	3/4”	Indicator Light (1) Push Button (1)	Green Red	220 500	— 1NA		1.25 (2.76)	2.28 (139.13)	**NEBCC224N**
	3/4”	Indicator Light (1) Push Button (1)	Green Red	220 500	— 1NA+1NF		1.25 (2.76)	2.28 (139.13)	**NEBCC225N**
	3/4”	Indicator Light (1) Push Button (1)	Green Red	220 500	— 1NA+1NF		1.25 (2.76)	2.28 (139.13)	**NEBCC226N**

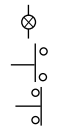
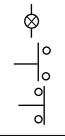
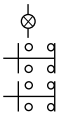
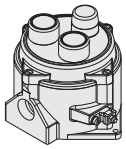
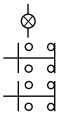
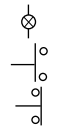
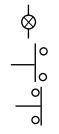
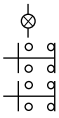
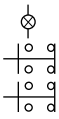
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*For Metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NEBCA101**M**.*

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Nutsteel® NEBC Push Button Emergency Stop Control Station

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex de IIC Gb
Ex tb IIIC
IP66

	Ø Threads	Type	Color	Voltage (V)	Contact	Symbol	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Push Button Control and Indicator Light —10 A, 500 Vca									
	3/4”	Indicator Light (1) Push Buttons (2)	Green Red Red	130 500 500	— 1NA 1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC227N**
	3/4”	Indicator Light (1) Push Buttons (2)	Red Green Red	130 500 500	— 1NA 1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC228N**
	3/4”	Indicator Light (1) Push Buttons (2)	Green Green Red	130 500 500	— 1NA+1NF 1NA+1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC229N**
	3/4”	Indicator Light (1) Push Buttons (2)	Red Green Red	130 500 500	— 1NA+1NF 1NA+1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC230N**
	3/4”	Indicator Light (1) Push Buttons (2)	Green Red Red	220 500 500	— 1NA 1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC231N**
	3/4”	Indicator Light (1) Push Buttons (2)	Red Green Red	220 500 500	— 1NA 1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC232N**
	3/4”	Indicator Light (1) Push Buttons (2)	Green Green Red	220 500 500	— 1NA+1NF 1NA+1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC233N**
	3/4”	Indicator Light (1) Push Buttons (2)	Green Red Red	220 500 500	— 1NA+1NF 1NA+1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC234N**

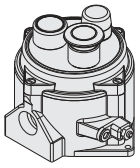
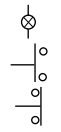
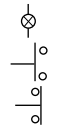
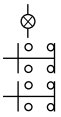
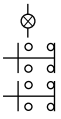
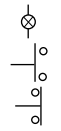
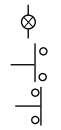
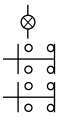
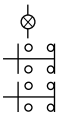
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*For Metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NEBCA101**M**.*

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Nutsteel® NEBC Push Button Emergency Stop Control Station

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex de IIC Gb
Ex tb IIIC
IP66

	Ø Threads	Type	Color	Voltage (V)	Contact	Symbol	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Emergency Button with Lock and Push Button and Indicator Light —10 A, 500 Vca									
	3/4”	Indicator Light (1) Push Button (1) Emergency Button (1)	Green Green Red	130 500 500	— 1NA 1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC235N**
	3/4”	Indicator Light (1) Push Button (1) Emergency Button (1)	Red Green Red	130 500 500	— 1NA 1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC236N**
	3/4”	Indicator Light (1) Push Button (1) Emergency Button (1)	Green Green Red	130 500 500	— 1NA+1NF 1NA+1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC237N**
	3/4”	Indicator Light (1) Push Button (1) Emergency Button (1)	Red Green Red	130 500 500	— 1NA+1NF 1NA+1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC238N**
	3/4”	Indicator Light (1) Push Button (1) Emergency Button (1)	Green Green Red	220 500 500	— 1NA 1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC239N**
	3/4”	Indicator Light (1) Push Button (1) Emergency Button (1)	Red Green Red	220 500 500	— 1NA 1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC240N**
	3/4”	Indicator Light (1) Push Button (1) Emergency Button (1)	Green Green Red	220 500 500	— 1NA+1NF 1NA+1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC241N**
	3/4”	Indicator Light (1) Push Button (1) Emergency Button (1)	Red Green Red	220 500 500	— 1NA+1NF 1NA+1NF		1.30 (2.87)	2.28 (139.13)	**NEBCC242N**

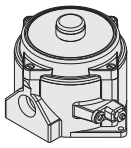
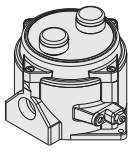
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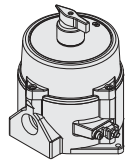
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Nutsteel® NEBC Push Button Emergency Stop Control Station

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex de IIC Gb
Ex tb IIIC
IP66

	Ø Threads	Type	Color	Voltage (V)	Symbol	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Pilot Light								
	3/4”	Pilot Light	Green	130		1.10 (2.43)	2.22 (135.47)	**NEBCS301N**
	3/4”	Pilot Light	Red	130		1.10 (2.43)	2.22 (135.47)	**NEBCS302N**
	3/4”	Pilot Light	Green	220		1.10 (2.43)	2.22 (135.47)	**NEBCS303N**
	3/4”	Pilot Light	Red	220		1.10 (2.43)	2.22 (135.47)	**NEBCS304N**
	3/4”	Pilot Light (2)	Green Red	130		1.10 (2.43)	2.22 (135.47)	**NEBCS305N**
	3/4”	Pilot Light (2)	Green Red	220		1.10 (2.43)	2.22 (135.47)	**NEBCS306N**

	Ø Threads	Type	Poles	Positions	Current	Nominal Voltage (Vac)	Symbol	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Rotary Switch — High Cover										
	3/4”	Interrupter	1	0-1	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI401N**
	3/4”	Interrupter	2	0-1	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI402N**
	3/4”	Interrupter	3	0-1	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI403N**
	3/4”	Interrupter	4	0-1	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI404N**
	3/4”	Reverser	1	1-0-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI405N**
	3/4”	Reverser	2	1-0-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI406N**
	3/4”	Reverser	3	1-0-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI407N**
	3/4”	Switch	1	1-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI408N**
	3/4”	Switch	2	1-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI409N**
	3/4”	Switch	3	1-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI410N**

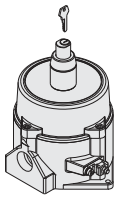
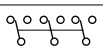
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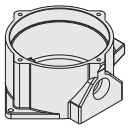
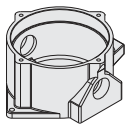
Nutsteel® NEBC Push Button Emergency Stop Control Station

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex de IIC Gb
Ex tb IIIC
IP66

	Ø Threads	Type	Poles	Positions	Current	Nominal Voltage (Vac)	Symbol	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Rotary Switch with Yale Key— High Cover										
	3/4”	Interrupter	1	0-1	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI411N**
	3/4”	Interrupter	2	0-1	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI412N**
	3/4”	Interrupter	3	0-1	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI413N**
	3/4”	Interrupter	4	0-1	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI414N**
	3/4”	Reverser	1	1-0-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI415N**
	3/4”	Reverser	2	1-0-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI416N**
	3/4”	Reverser	3	1-0-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI417N**
	3/4”	Switch	1	1-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI418N**
	3/4”	Switch	2	1-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI419N**
	3/4”	Switch	3	1-2	20	690		1.30 (2.87)	3.24 (197.72)	**NEBCI420N**

Accessories — Replacement Parts

	Ø Threads	Hub Configuration	Catalog Number ②
Box without Cover			
	1/2” NPT	Type E — Dead End	**NECRSE01NK**
	3/4” NPT	Type E — Dead End	**NECRSE02NK**
	1/2” BSP	Type E — Dead End	**NECRSE01BK**
	3/4” BSP	Type E — Dead End	**NECRSE02BK**
	1/2” NPT	Type C — Feed Thru	**NECRSC01NK**
	3/4” NPT	Type C — Feed Thru	**NECRSC02NK**
	1/2” BSP	Type C — Feed Thru	**NECRSC01BK**
	3/4” BSP	Type C — Feed Thru	**NECRSC02BK**

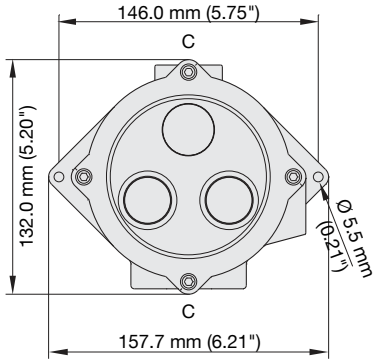
	Number of Holes	Cover Depth	Catalog Number ②
Cover			
	1	Flat Cover	**NETRP0100**
	2	Flat Cover	**NETRP0200**
	3	Flat Cover	**NETRP0300**
	4	High Cover	**NETRA0100**

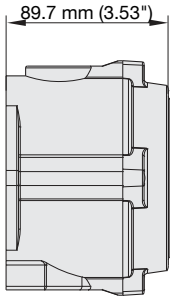
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*For Metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NEBCA101**M**.*
② Box without cover supplied with screws, washers and grounding terminals.

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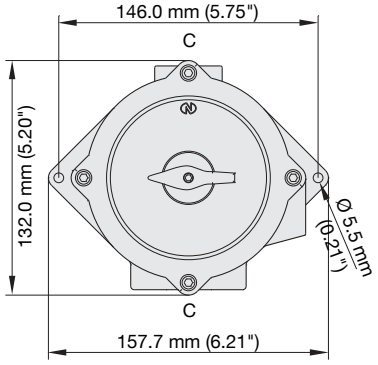
Dimensions in Millimeters (Inches)

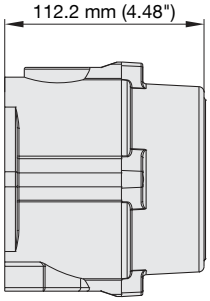
Flat Cover



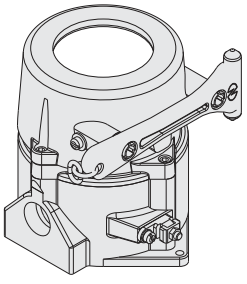


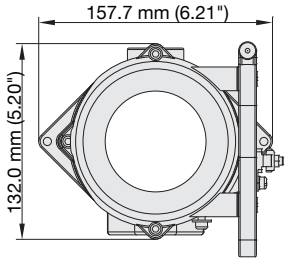
High Cover

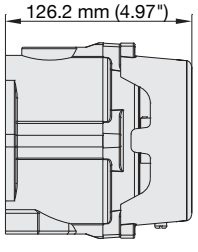




Alarm Button







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Nutsteel® NETPE, NETPL, NECM Modular Control Stations

Explosionproof

NBR IEC:
Zones 1 and 2
Ex d IIB Gb
IP65

Applications

- Used in areas where there is a risk of explosion; in industries such as:
  - — Chemical manufacturing
  - — Petrochemicals manufacturing
  - — Paint and varnish manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing facilities

Features

- The NECM line of control station bodies is comprised of single, double and triple gang boxes for use with NETPL blank covers and NETPE covers with installed components.
  - — Comes standard with two NPT threaded hubs, top and bottom. Available in Ø 3/4" to 2" threads.
  - — The threaded side entries are supplied with a sealing plug.
  - — Control stations are supplied with screws and washers. Covers are sold separately; i.e. if choosing a double gang box, also select two covers as needed.
  - — Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.
- The NETPL line of control station blank covers are available in both flat and high versions.
- The NETPE line of control station covers are available with a variety of equipment installed on the cover;
  - — Switches
  - — Rotary switches
  - — Circuit breakers
  - — Push buttons
  - — Indicator lights (supplied with lamp)
- Compliance certification is based on units with original electrical components. Product should be ordered as complete units.

Standard Material

- Body and cover: copperfree, die cast aluminum
- Screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NECMS02**B**.

NBR IEC Brazilian Certifications and Compliances

- T Rating: T6
- Ingress Protection: IP65
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-7
- INMETRO Certificate: TUV Rheinland TUV 12.0815
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- NETPE, NETPL and NECM control stations can be used in conjunction with NACAJ increased safety junction boxes. For more information on the NACAJ Series, see *Enclosures and Junction Boxes*.



Single **Double** **Triple**

Appleton®

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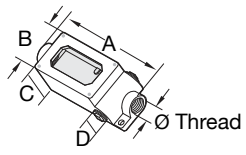
Explosionproof

NBR IEC:
Zones 1 and 2
Ex d IIB Gb
IP65

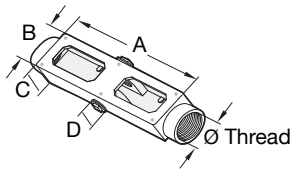
	Dimensions in Millimeters (Inches)				Screws					
	Ø NPT Thread	A	B	C	Ø Diameter	Torque kgf.m (lbf.in)	Hex Head Screw	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Control Station Body — Without Cover										
Single	3/4”	195 (7.68)	90 (3.54)	77 (3.03)	1”	0.50 (43.40)	7/16”	1.12 (2.47)	1.35 (82.38)	**NECMS02NK**
Double	1”	315 (12.40)	90 (3.54)	88 (3.46)	1-1/4”	0.50 (43.40)	7/16”	2.03 (4.48)	2.49 (151.95)	**NECMD03NK**
Double	2”	325 (12.80)	90 (3.54)	88 (3.46)	1-1/4”	0.50 (43.40)	7/16”	1.99 (4.39)	2.49 (151.95)	**NECMD06NK**
Triple	1”	455 (17.91)	90 (3.54)	88 (3.46)	1-1/4”	0.50 (43.40)	7/16”	2.63 (5.80)	3.57 (217.85)	**NECMT03NK**
Triple	2”	455 (17.91)	90 (3.54)	88 (3.46)	1-1/4”	0.50 (43.40)	7/16”	2.73 (6.02)	3.57 (217.85)	**NECMT06NK**
Blank Cover — Without Drilling, Without Equipment										
Flat		135 (5.31)	90 (3.54)	20 (0.79)	—	—	—	0.58 (1.28)	0.24 (14.65)	**NETPL0001**
High		135 (5.31)	90 (3.54)	45 (1.77)	—	—	—	0.45 (0.99)	0.54 (32.95)	**NETPL0002**
Pedal Cover										
Pedal		135 (5.31)	90 (3.54)	57 (2.24)	—	—	—	0.58 (1.28)	0.69 (42.11)	**NETPL0003**

Control Station Body Dimensions without Cover

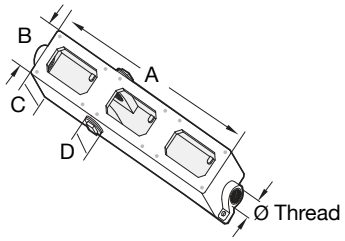
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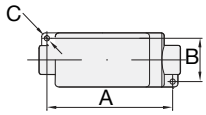


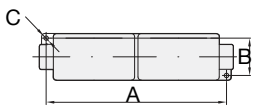
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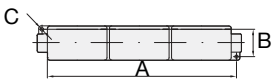


Triple









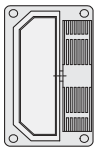
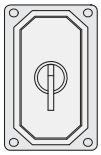
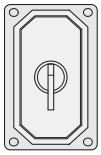
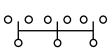
① *For BSP threads, replace the letter **N** with the letter **B**, in the 8th position; example: NECMS02**B**.*

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Nutsteel® NETPE, NETPL, NECM Modular Control Stations

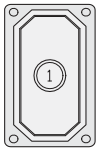
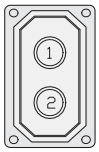
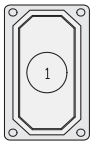
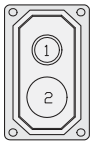
Explosionproof

NBR IEC:
Zones 1 and 2
Ex d IIB Gb
IP65

	Type	Current (Amp)	Number of Poles	Positions	Nominal Voltage (V)	Symbol	Screws: Torque kgf.m (lbf.in)	Screws: Hex Head Screw	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number
Ex d Switch — Assembled in Cover											
	Switch	15	2	—	120		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0903**
	Switch	30	2	—	120		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0902**
Ex d 1-Pole Circuit Breaker — Assembled in Cover											
	Circuit Breaker	10	1	—	220		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0801**
	Circuit Breaker	15	1	—	220		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0802**
	Circuit Breaker	20	1	—	220		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0803**
	Circuit Breaker	25	1	—	220		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0804**
	Circuit Breaker	30	1	—	220		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0805**
	Circuit Breaker	35	1	—	220		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0806**
	Circuit Breaker	40	1	—	220		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0807**
	Circuit Breaker	50	1	—	220		0.50 (43.40)	7/16”	0.58 (1.28)	0.69 (42.10)	**NETPE0808**
Ex d Rotary Switch — Assembled in Cover											
	Interrupter	20	1	0-1	500		0.50 (43.40)	7/16”	0.51 (44.27)	0.63 (38.4)	**NETPE0401**
	Interrupter	20	2	0-1	500		0.50 (43.40)	7/16”	0.51 (44.27)	0.63 (38.4)	**NETPE0402**
	Interrupter	20	3	0-1	500		0.50 (43.40)	7/16”	0.53 (46.00)	0.63 (38.4)	**NETPE0403**
	Interrupter	20	4	0-1	500		0.50 (43.40)	7/16”	0.53 (46.00)	0.63 (38.4)	**NETPE0404**
	Reverser	20	1	1-0-2	500		0.50 (43.40)	7/16”	0.51 (44.27)	0.63 (38.4)	**NETPE0501**
	Reverser	20	2	1-0-2	500		0.50 (43.40)	7/16”	0.53 (46.00)	0.63 (38.4)	**NETPE0502**
	Reverser	20	3	1-0-2	500		0.50 (43.40)	7/16”	0.55 (47.74)	0.63 (38.4)	**NETPE0503**
	Switch	20	1	1-2	500		0.50 (43.40)	7/16”	0.51 (44.27)	0.63 (38.4)	**NETPE0701**
	Switch	20	2	1-2	500		0.50 (43.40)	7/16”	0.53 (46.00)	0.63 (38.4)	**NETPE0702**
	Switch	20	3	1-2	500		0.50 (43.40)	7/16”	0.55 (47.74)	0.63 (38.4)	**NETPE0703**

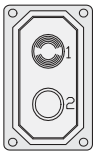
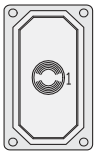
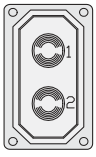
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NBR IEC:
Zones 1 and 2
Ex d IIB Gb
IP65

	Type	Button 1 Contact	Button 1 Symbol	Button 2 Contact	Button 2 Symbol	Screws Torque kgf.m (lbf.in)	Screws Hex Head Screw	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number
Ex d Push Button Control — Assembled in Cover										
	Push Button	VD/1 NA		—	—	0.50 (43.40)	7/16”	0.68 (1.50)	0.46 (28.07)	**NETPE0103**
	Push Button	VD/1 NA + 1 NF		—	—	0.50 (43.40)	7/16”	0.68 (1.50)	0.46 (28.07)	**NETPE0102**
	Push Button	VM/1 NF		—	—	0.50 (43.40)	7/16”	0.68 (1.50)	0.46 (28.07)	**NETPE0101**
	Push Button	VM/1 NA + 1 NF		—	—	0.50 (43.40)	7/16”	0.68 (1.50)	0.46 (28.07)	**NETPE0106**
	Push Button	VD/1NA		VM/1 NF		0.50 (43.40)	7/16”	0.78 (1.72)	0.46 (28.07)	**NETPE0104**
	Push Button	VD/1NA + 1NF		VM/1 NA + 1NF		0.50 (43.40)	7/16”	0.78 (1.72)	0.46 (28.07)	**NETPE0105**
Ex d Emergency Button with Lock — Assembled in Cover										
	Emergency Button	VM/1NF		—	—	0.50 (43.40)	7/16”	0.68 (1.50)	0.67 (44.89)	**NETPE1101**
	Emergency Button	VM/1NA+1NF		—	—	0.50 (43.40)	7/16”	0.68 (1.50)	0.67 (44.89)	**NETPE1102**
Ex d Emergency Button with Lock and Push Button — Assembled in Cover										
	Push Button + Emergency Button	VD/1NA		VM/1NF		0.50 (43.40)	7/16”	0.78 (1.72)	0.67 (44.89)	**NETPE1101**
	Push Button + Emergency Button	VD/1NA+1NF		VM/1NA+1NF		0.50 (43.40)	7/16”	0.78 (1.72)	0.67 (44.89)	**NETPE1102**

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NBR IEC:
Zones 1 and 2
Ex d IIB Gb
IP65

	Type	Button 1 Contact	Button 1 Symbol	Button 2 Contact	Button 2 Symbol	Screws Torque kgf.m (lbf.in)	Screws Hex Head Screw	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number
Ex d Push Button Control and Indicator Light — Assembled in Cover										
	Push Button + Indicator Light	VD/130V		VM/1NF		0.50 (43.40)	7/16”	0.74 (1.63)	0.56 (34.17)	**NETPE0301**
	Push Button + Indicator Light	VM/130V		VD/1NA		0.50 (43.40)	7/16”	0.74 (1.63)	0.56 (34.17)	**NETPE0305**
	Push Button + Indicator Light	VD/130V		VM/1NA+1NF		0.50 (43.40)	7/16”	0.74 (1.63)	0.56 (34.17)	**NETPE0307**
	Push Button + Indicator Light	VM/130V		VD/1NA+1NF		0.50 (43.40)	7/16”	0.74 (1.63)	0.56 (34.17)	**NETPE0304**
	Push Button + Indicator Light	VD/240V		VM/1NF		0.50 (43.40)	7/16”	0.74 (1.63)	0.56 (34.17)	**NETPE0302**
	Push Button + Indicator Light	VM/240V		VD/1NA		0.50 (43.40)	7/16”	0.74 (1.63)	0.56 (34.17)	**NETPE0306**
	Push Button + Indicator Light	VD/240V		VM/1NA+1NF		0.50 (43.40)	7/16”	0.74 (1.63)	0.56 (34.17)	**NETPE0308**
	Push Button + Indicator Light	VM/240V		VD/1NA+1NF		0.50 (43.40)	7/16”	0.74 (1.63)	0.56 (34.17)	**NETPE0303**
Ex d Indicator Light — Assembled in Cover										
	Indicator Light	VD/130V		—	—	0.50 (43.40)	7/16”	0.65 (1.43)	0.56 (34.17)	**NETPE0201**
	Indicator Light	VM/130V		—	—	0.50 (43.40)	7/16”	0.65 (1.43)	0.56 (34.17)	**NETPE0203**
	Indicator Light	VD/240V		—	—	0.50 (43.40)	7/16”	0.65 (1.43)	0.56 (34.17)	**NETPE0202**
	Indicator Light	VM/240V		—	—	0.50 (43.40)	7/16”	0.65 (1.43)	0.56 (34.17)	**NETPE0204**
	Indicator Light	VD/130V		VM/130V		0.50 (43.40)	7/16”	0.65 (1.43)	0.56 (34.17)	**NETPE0205**
	Indicator Light	VD/240V		VM/240V		0.50 (43.40)	7/16”	0.65 (1.43)	0.56 (34.17)	**NETPE0206**

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Nutsteel® NECS Series Ex d Control Operators

Flameproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
IP66



Applications

- Specific components to assemble in Ex d enclosures with threaded entries M22 x 1.5 mm (0.059").

Features

- Push buttons supplied complete with contact block 10 Amp 500 Vac.
- Switches supplied complete with contact block 20 Amp 690 Vac.
- Pilot light with BA9s 20 mA - 220 or 130 V LED.
- Terminal capacity 2 x 2.5 mm^2 (0.004 in^2).

Standard Materials

- Aluminum alloy
- Pilot light lens: polycarbonate

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection: IP66
- Temperature Class: T6
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1
- Certificate of Compliance: TÜV 11.0086-U
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

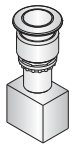
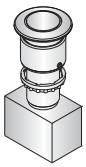
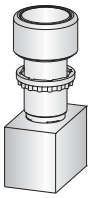
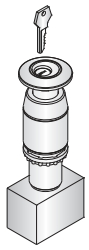
- For control stations see *Controls:*
  - — *Nutsteel NECCS Series Pre-Drilled Control Stations*
  - — *Nutsteel NEBC Push Button Emergency Stop Control Station*
  - — *Nutsteel NETPE, NETPL, NECM Modular Control Stations*

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Nutsteel® NECS Series Ex d Control Operators

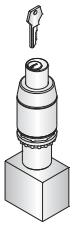
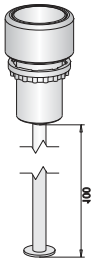
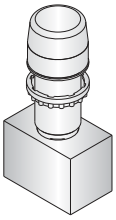
Flameproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
IP66

	Type	Color	Wiring Diagram	Contact	Catalog Number
Mushroom Push Buttons					
	Spring return mushroom head push button	Red		1NC 10A — 500V	**NECSA101**
Push-Pull Mushroom Head Push Button					
	Push-pull mushroom head push button	Red		1NC 10A — 500V	**NECSA102**
				1NO+1NC 10A — 500V	**NECSA103**
				1NO 10A — 500V	**NECSA104**
Push Button					
	Push button	Green		1NO 10A — 500V	**NECSC201**
		Red		1NC 10A — 500V	**NECSC202**
		Green		1NO+1NC 10A — 500V	**NECSC203**
		Red		1NO+1NC 10A — 500V	**NECSC204**
		Red		1NO 10A — 500V	**NECSC205**
Emergency Button with Key					
	Key push-pull mushroom head push button (2 keys supplied)	Red		1NC 10A — 500V	**NECSC206**
				1NO+1NC 10A — 500V	**NECSC207**
				1NO 10A — 500V	**NECSC208**

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NBR IEC:
Zone 1 and 2
Ex d IIC Gb
IP66

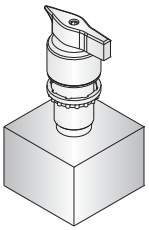
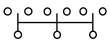
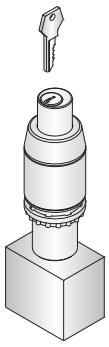
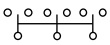
	Type	Color	Wiring Diagram	Contact	Catalog Number
Control Button with Key					
	Key selector switch (2 keys supplied)	—		1NC 10A — 500 V	**NECSC209**
				1NO+1NC 10A — 500 V	**NECSC210**
				1NO 10A — 500 V	**NECSC211**
Reset Button					
	Reset Button	Black	Reset button without contact block, supplied with 100 mm (3.94") length axis. Can be supplied with other lengths.		**NECSC212**
Pilot lights					
	Pilot light 130 V	Green		130 V	**NECSS301**
	Pilot light 130 V	Red		130 V	**NECSS302**
	Pilot light 220 V	Green		220 V	**NECSS303**
	Pilot light 220 V	Red		220 V	**NECSS304**

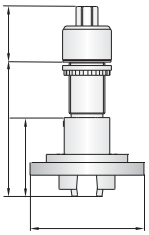
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Nutsteel® NECS Series Ex d Control Operators

Flameproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
IP66

	Type	Positions	Current (A)	Voltage (V)	Wiring Diagram	Contact	Catalog Number
Switches							
	Switch	0-1	20	690		1NO	**NECSI401**
	Switch	0-1	20	690		2NO	**NECSI402**
	Switch	0-1	20	690		3NO	**NECSI403**
	Switch	0-1	20	690		4NO	**NECSI404**
	Selector Switch	1-0-2	20	690		1NO+1NC	**NECSI405**
	Selector Switch	1-0-2	20	690		2NO+2NC	**NECSI406**
	Selector Switch	1-0-2	20	690		3NO+3NC	**NECSI407**
	Selector Switch	1-2	20	690		1NO+1NC	**NECSI408**
	Selector Switch	1-2	20	690		2NO+2NC	**NECSI409**
	Selector Switch	1-2	20	690		3NO+3NC	**NECSI410**
Keyed Selector Switch (supplied with 2 keys)							
	Switch	0-1	20	690		1NO	**NECSI411**
	Switch	0-1	20	690		2NO	**NECSI412**
	Switch	0-1	20	690		3NO	**NECSI413**
	Switch	0-1	20	690		4NO	**NECSI414**
	Selector Switch	1-0-2	20	690		1NO+1NC	**NECSI415**
	Selector Switch	1-0-2	20	690		2NO+2NC	**NECSI416**
	Selector Switch	1-0-2	20	690		3NO+3NC	**NECSI417**
	Switch	1-2	20	690		1NO+1NC	**NECSI418**
	Switch	1-2	20	690		2NO+2NC	**NECSI419**
	Switch	1-2	20	690		3NO+3NC	**NECSI420**

	Description	Course	
Circuit breaker actuator — IP66			
	Ideal for use in explosionproof switchboards. Used to drive circuit breakers externally.	26 mm (1.02")	**NECSD001**

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Nutsteel® NEBVO Voltmeter and NEBAM Ammeter

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex de IIC Gb
Ex tb IIIC Db
IP66

Applications

- Suitable for use with enclosures for controlling equipment in industrial processes.
- Used in areas where there is a risk of explosion; in industries such as:
  - — Chemical manufacturing
  - — Petrochemicals manufacturing
  - — Paint and varnish manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Flammable product storage facilities

Features

- Ammeter or voltmeter devices with electromagnetic coil compatible with alternating (AC) or continuous (DC) current.
- Temperated glass lens is resistant to thermal shock and impact.
- Ex d protection: enclosure is designed to prevent an internal explosion from propagating into the external environment.
- "Ex e" protection (increased safety): equipment designed and built so that none of its components will cause sparks or hot surfaces, avoiding the risk of explosion when installed in areas classified as Zones 1 and 2.
- Comes standard with Ø 3/4" NPT threaded hubs, top and bottom.
- Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.
- Voltmeter
  - Rated voltage: 0-600V
  - Frequency: 15-400 Hz
  - Consumption: 2,5 VA
  - Permanent overload: 20%
  - Instantaneous overload: not applicable
  - Terminal connections: screw type

Ammeter

- Rated voltage: 0-200A
- Frequency: 15-400 Hz
- Consumption: 2,5 VA
- Permanent overload: not applicable
- Instantaneous overload: 2 x In
- Terminal connections: screw type

Standard Material

- Enclosure: copperfree, die cast aluminum
- Lens: polycarbonate
- Screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 12th position; example: NEBAM010T01**B**.
- For Metric threads, replace the letter **N** with the letter **M**, in the 12th position; example: NEBAM010T01**M**.
- When assembling with an increased safety NACAJ junction box, replace the letter **N** with the letters **SA**, in the 12th position; example: NEBVO030T01**SA**. The NACAJ001 is supplied with two M20 x 1.5 threaded entries on the bottom (total weight: 4.63 lb/2.10 kg; total volume: 192.22 in³/3.15 dm³.



Voltmeter



Ammeter

NBR IEC Brazilian Certifications and Compliances

- T Rating: T6
- Ingress Protection: IP66
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-7
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0087-X
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- NEBVO voltmeters and NEBAM ammeters can be used in conjunction with NACAJ increased safety junction boxes. For more information on the NACAJ Series, see *Enclosures and Junction Boxes*.

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Nutsteel® NEBVO Voltmeter and NEBAM Ammeter

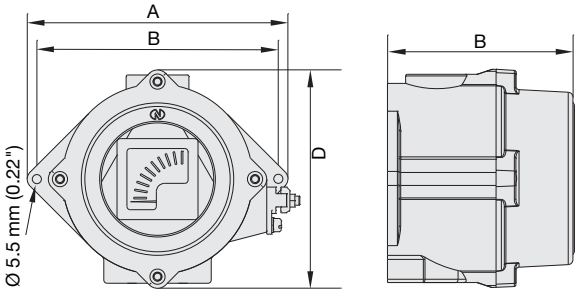
Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC
Ex de IIC
Ex tb IIIC Db
IP66

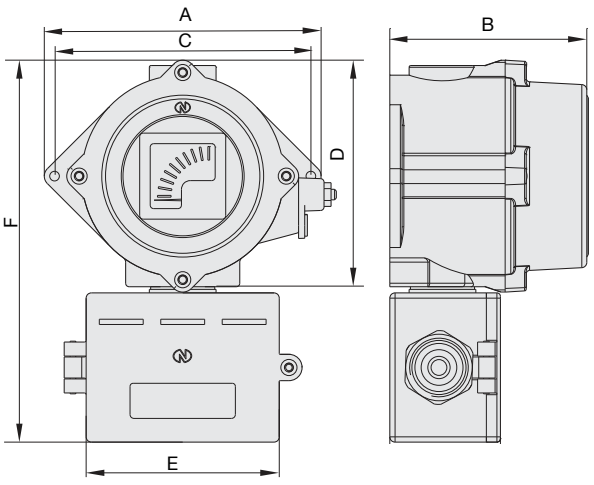
Scale	Ø NPT Thread	Dimensions in Millimeters (Inches) A	B	C	D	E	F	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①②
Voltmeter										
0-30	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBVO030T01N**
0-50	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBVO050T01N**
0-100	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBVO100T01N**
0-150	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBVO150T01N**
0-250	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBVO250T01N**
0-300	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBVO300T01N**
0-500	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBVO500T01N**
0-600	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBVO600T01N**
Ammeter										
0-10	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBAM010T01N**
0-20	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBAM020T01N**
0-30	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBAM030T01N**
0-50/5	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBAM050T01N**
0-80/5	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBAM080T01N**
0-100/5	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBAM100T01N**
0-150/5	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBAM150T01N**
0-200/5	3/4”	158 (6.22)	112 (4.41)	146 (5.75)	132 (5.20)	110 (4.33)	218 (8.58)	1.35 (2.98)	2.28 (139.13)	**NEBAM200T01N**

Dimensions

Voltmeter/Ammeter



Optional Assembly with NACAJ001 Increased Safety Junction Box — Ex de



*① For BSP threads, replace the letter **N** with the letter **B**, in the 12th position; example: NEBAM010T01**B**.*
*For Metric threads, replace the letter **N** with the letter **M**, in the 12th position; example: NEBAM010T01**M**.*
*② When assembling with an increased safety NACAJ junction box, replace the letter **N** with the letters **SA**, in the 12th position; example: NEBVO030T01**SA**.*
The NACAJ001 is supplied with two M20 x 1.5 threaded entries on the bottom — total weight: 2.10 kg (4.63 lb); total volume: 3.15 dm³ (192.22 in³).

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Nutsteel® NEFC Electric Photocontrol

Explosionproof

For use with Nutsteel Luminaires.

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66



Applications

- Used to control the lighting in facilities where there is a risk of explosion due to the formation of explosive atmospheres.

Features

- Internal micro-controlled smart electronic circuit and fail-off system (lamp off in case of failure).
- Highly sensitive in recognizing light level.
- Low power consumption.
- Input voltage: 105 to 305 Vac.
- Power: 1000 W or 1800 VA.
- Ex d protection: enclosure is designed to prevent an internal explosion from propagating into the external environment.
- "tD" Protection (against ignition of dust): this equipment meets all relevant measures against penetration of dust and limitation of surface temperature, applicable to electrical equipment protected by an enclosure. Prevents the ignition of a layer or cloud of dust.

Standard Material

- Enclosure: aluminum alloy
- Lens: polycarbonate

Standard Finishes

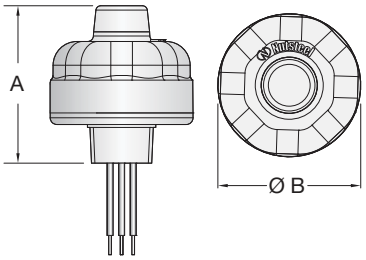
- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection: IP66
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 09.9879-X

Related Products

- Can be used with Nutsteel Explosionproof luminaires. See *Lighting* Section.

	Ø Thread	Dimensions mm (in) A	ØB	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number
	1" NPT	80.00 (3.15)	74.00 (2.91)	0.35 (0.77)	0.11 (6.7)	**NEFC03N**
	1" BSP	80.00 (3.15)	74.00 (2.91)	0.35 (0.77)	0.11 (6.7)	**NEFC03B**
	M32 x 1.5	80.00 (3.15)	74.00 (2.91)	0.35 (0.77)	0.11 (6.7)	**NEFCM32**

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Nutsteel® NTCCS Enclosure for Controls and Indicator Lights

Weatherproof

NBR IEC:
IP54

Applications

- Suitable for housing various types of controls and indicator lights.

Features

- Supplied with housing and cover.
- Cover is provided with up to 16 holes for attaching various types of components.
- Housing and components must be specified at the time of order.
- Unused holes located on the cover can be closed with an optional close-up plug.
- Supplied with removable chassis/mounting plate attached to the bottom of the enclosure for installing components.
- Supplied with contact block.
- NPT, BSP and Metric M16 to M50.
- Available components are:
  - — Push buttons
  - — Emergency mushroom buttons
  - — Keyed buttons
  - — Indicator lights, supplied with lamp
  - — Switches
- Components with Ø 30.5 mm (1.20 in).

Standard Material

- Housing and cover: copperfree, die cast aluminum
- Blanking plugs: aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NTCCS001**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NTCCS001**M**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection: IP54
- Other Standards: ABNT NBR IEC 60529 (IP)



Enclosure Only



Custom Enclosure

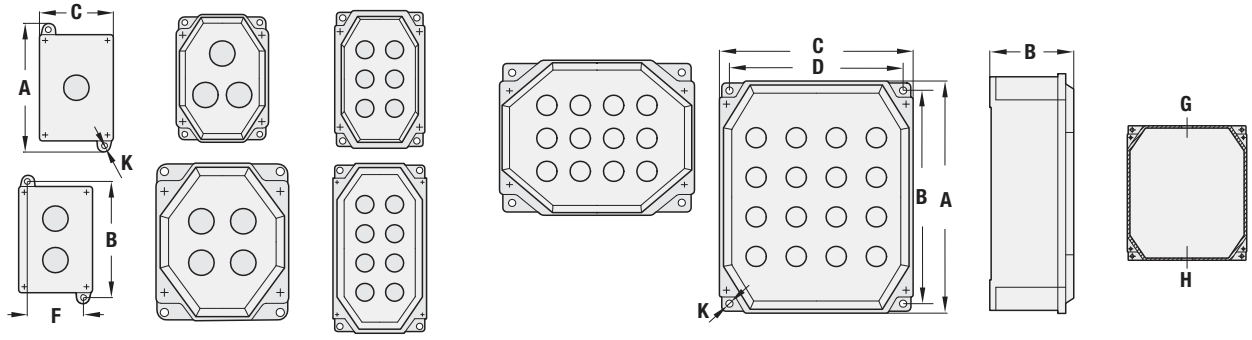
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Nutsteel® NTCCS Enclosure for Controls and Indicator Lights

Weatherproof

NBR IEC:
IP54

Enclosures



Ø NPT Thread	No. of Holes on Cover — (G) (H) 30.5 mm (Ø 1.2")	Dimensions in Millimeters (Inches) A	B	C	D	E	Ø K	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
3/4"	1	130 (5.12)	140 (5.51)	90 (3.54)	70 (2.76)	75 (2.95)	7 (0.28)	0.79 (1.74)	0.79 (48.20)	**NTCCS001N**
3/4"	2	130 (5.12)	140 (5.51)	90 (3.54)	70 (2.76)	75 (2.95)	7 (0.28)	0.79 (1.74)	0.79 (48.20)	**NTCCS002N**
3/4"	3	160 (6.30)	140 (5.51)	120 (4.72)	100 (3.94)	110 (4.33)	11 (0.43)	1.75 (3.85)	2.09 (127.54)	**NTCCS003N**
3/4"	4	190 (7.48)	165 (6.50)	160 (6.30)	130 (5.12)	130 (5.12)	11 (0.43)	2.68 (5.91)	3.84 (234.33)	**NTCCS004N**
1"	6	235 (9.25)	210 (8.27)	155 (6.10)	130 (5.12)	130 (5.12)	11 (0.43)	2.83 (6.24)	4.66 (284.37)	**NTCCS006N**
1"	8	290 (11.42)	265 (10.43)	155 (6.10)	130 (5.12)	130 (5.12)	11 (0.43)	3.67 (8.09)	5.63 (343.56)	**NTCCS008N**
1-1/2"	12	230 (9.06)	205 (8.07)	290 (11.42)	260 (10.24)	180 (7.09)	11 (0.43)	5.36 (11.82)	11.15 (680.41)	**NTCCS012N**
1-1/2"	16	355 (13.98)	330 (12.99)	295 (11.61)	260 (10.24)	180 (7.09)	11 (0.43)	7.83 (17.26)	17.42 (1063.03)	**NTCCS016N**

Thread Equivalence

NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

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Nutsteel® NTCCS Enclosure for Controls and Indicator Lights

Weatherproof

NBR IEC:
IP54

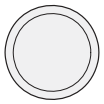
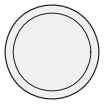
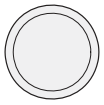
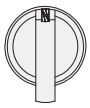
Components and Accessories



Push Button



Raised Push Button

	Type	Color	Contact	Lamps	Catalog Number
	Indicator Light — 110 V	Green	—	130 V 2.6 W BA9S	**NXSIN001T**
		Red	—	130 V 2.6 W BA9S	**NXSIN002T**
	Indicator Light — 220 V	Green	—	130 V 2.6 W BA9S	**NXSIN003T**
		Red	—	130 V 2.6 W BA9S	**NXSIN004T**
	Push Button	Green	1 NF 16 A — 600 V	—	**NXBOT001T**
		Red	1 NF 16 A — 600 V	—	**NXBOT002T**
		Green	1 NA + 1 NF 16 A — 600 V	—	**NXBOT003T**
		Red	1 NA + 1 NF 16 A — 600 V	—	**NXBOT004T**
	Raised Push Button (Alarm Only)	Red	1 NA 15 A — 500 V ①	—	**NXBOT007T**
		Red	1 NA + 1 NF 15 A — 500 V ①	—	**NXBOT018T**
	Raised Push Button (Alarm Only)	Red	1 NF 15 A — 500 V ②	—	**NXBOT009T**
		Red	1 NA + 1 NF 15 A — 500 V ②	—	**NXBOT010T**
	Emergency Button with Lock	Red	1 NF 16 A — 600 V	—	**NXBOT005T**
		Red	1 NA + 1 NF 16 A — 600 V	—	**NXBOT006T**
	Button with Yale Key Supplied with Two Keys	—	1 NF 16 A — 600 V	—	**NXBOT103T**
		—	1 NA+1 NF 16 A — 600 V	—	**NXBOT104T**
	Button with Yale Key Supplied with Two Keys	Red	1 NF 16 A — 600 V	—	**NXBOT101T**
		Red	1 NA+1 NF 16 A — 600 V	—	**NXBOT102T**
	Control Switch	Black	2 P–2 pos. “0-1” 16 A — 600 V	—	**NXCOM001T**
		Black	1 P–2 pos. “0-2” 16 A — 600 V	—	**NXCOM002T**
		Black	1 P–3 pos. “1-0-2” 16 A — 600 V	—	**NXCOM003T**
	START Nameplate			—	**NXPLQ001T**
	STOP Nameplate	—	—	—	**NXPLQ002T**
	ON Nameplate	—	—	—	**NXPLQ003T**
	OFF Nameplate	—	—	—	**NXPLQ004T**
	Blank Nam eplate	—	—	—	**NXPLQ005T**
	Custom Nameplate	—	—	—	**NXPLQ006T**
	Blanking plugs	—	—	—	**NXBSC30P**

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NTIN Control Station

Weatherproof. Watertight

NBR IEC:
IP65

Applications

- Suitable for environments containing moisture, non-flammable gases and vapors.

Features

- Supplied with housing and cover.
- Sealing gasket supplied between housing and cover.
- 1-pole or 2-pole switch provided:
  — 250 V, 10 to 30 Amp
  — Available with up to 6 switches
- External nameplates: "ON" - "OFF"
- External grounding connector for cable 0.009 in^2/6 mm^2.
- Unused holes located on the cover can be closed with an optional close-up plug.
- NPT, BSP and Metric M16 to M63.

Standard Material

- Housing and cover: copperfree, die cast aluminum
- Screws and washers: AISI 304 stainless steel
- Gasket: SBR Rubber
- Close-up plug: aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

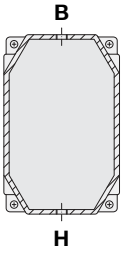
- For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NTIN011010**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NTIN011010**M**.
- Close-up plug: NEBJC.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection: IP65
- Other Standards: ABNT NBR IEC 60529 (IP)



Threaded Entry Locations



Threaded Entries

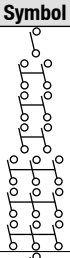
NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

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Nutsteel® NTIN Control Station

Weatherproof. Watertight

NBR IEC:
IP65

Switch Technical Features									
Quantity	Number of Poles	Nominal Current (Amp)	Nominal Voltage (V)	Symbol	Type of Housing	Ø NPT Thread (B) (H)	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
1	1	10	250		NTCM1P2H0	3/4”	1.75 (3.86)	3.22 (196.50)	**NTIN011010N**
1	2	10	250		NTCM1P2H0	3/4”	1.75 (3.86)	3.22 (196.50)	**NTIN012010N**
1	2	20	250		NTCM1P2H0	3/4”	1.78 (3.92)	3.22 (196.50)	**NTIN012020N**
1	2	30	250		NTCM1P2H0	3/4”	1.78 (3.92)	3.22 (196.50)	**NTIN012030N**
1	3	10	250		NTCM1P2H0	3/4”	1.80 (3.97)	3.22 (196.50)	**NTIN013010N**
1	3	20	250		NTCM1P2H0	3/4”	1.80 (3.97)	3.22 (196.50)	**NTIN013020N**
1	3	30	250		NTCM1P2H0	3/4”	1.80 (3.97)	3.22 (196.50)	**NTIN013030N**
2	1	10	250		NTCM1P2H0	3/4”	1.80 (3.97)	3.22 (196.50)	**NTIN021010N**
2	2	10	250		NTCM1P2H0	3/4”	1.80 (3.97)	3.22 (196.50)	**NTIN022010N**
2	2	20	250		NTCM1P3H0	3/4”	2.69 (5.93)	5.78 (352.72)	**NTIN022020N**
2	2	30	250		NTCM1P3H0	3/4”	2.69 (5.93)	5.78 (352.72)	**NTIN022030N**
2	3	10	250		NTCM1P3H0	1”	2.80 (6.17)	5.78 (352.72)	**NTIN023010N**
2	3	20	250		NTCM1P3H0	1”	2.80 (6.17)	5.78 (352.72)	**NTIN023020N**
2	3	30	250		NTCM1P3H0	1”	2.80 (6.17)	5.78 (352.72)	**NTIN023030N**
3	1	10	250		NTCM1P4H0	3/4”	2.85 (6.28)	6.95 (424.12)	**NTIN031010N**
3	2	10	250		NTCM1P4H0	1”	2.88 (6.35)	6.95 (424.12)	**NTIN032010N**
3	2	20	250		NTCM1P4H0	1”	2.90 (6.40)	6.95 (424.12)	**NTIN032020N**
3	2	30	250		NTCM1P4H0	1”	2.92 (6.44)	6.95 (424.12)	**NTIN032030N**
3	3	10	250		NTCM1P4H0	1”	3.00 (6.61)	6.95 (424.12)	**NTIN033010N**
3	3	20	250		NTCM1P4H0	1”	3.00 (6.61)	6.95 (424.12)	**NTIN033020N**
3	3	30	250		NTCM1P4H0	1-1/4”	3.00 (6.61)	6.95 (424.12)	**NTIN033030N**
4	1	10	250		NTCM1P5H0	1”	3.68 (8.11)	8.46 (516.26)	**NTIN041010N**
4	2	10	250		NTCM1P5H0	1-1/4”	3.78 (8.33)	8.46 (516.26)	**NTIN042010N**
4	2	20	250		NTCM1P5H0	1-1/4”	3.78 (8.33)	8.46 (516.26)	**NTIN042020N**
4	2	30	250		NTCM1P5H0	1-1/4”	3.88 (8.55)	8.46 (516.26)	**NTIN042030N**
4	3	10	250		NTCM1P5H0	1-1/4”	3.80 (8.38)	8.46 (516.26)	**NTIN043010N**
4	3	20	250		NTCM1P5H0	1-1/4”	3.80 (8.38)	8.46 (516.26)	**NTIN043020N**
4	3	30	250		NTCM1P5H0	2”	3.80 (8.38)	8.46 (516.26)	**NTIN043030N**
5	1	10	250		NTCM1P6H0	1-1/4”	4.42 (9.74)	10.33 (630.38)	**NTIN051010N**
5	2	10	250		NTCM1P6H0	1-1/2”	4.54 (10.01)	10.33 (630.38)	**NTIN052010N**
5	2	20	250		NTCM1P6H0	1-1/2”	4.54 (10.01)	10.33 (630.38)	**NTIN052020N**
5	2	30	250		NTCM1P6H0	2”	4.67 (10.30)	10.33 (630.38)	**NTIN052030N**
5	3	10	250		NTCM1P6H0	1-1/2”	4.60 (10.14)	10.33 (630.38)	**NTIN053010N**
5	3	20	250		NTCM1P6H0	1-1/2”	4.60 (10.14)	10.33 (630.38)	**NTIN053020N**
5	3	30	250		NTCM1P6H0	2”	4.60 (10.14)	10.33 (630.38)	**NTIN053030N**
6	1	10	250		NTCM1P6H0	1-1/4”	4.57 (10.08)	10.33 (630.38)	**NTIN061010N**
6	2	10	250		NTCM1P6H0	1-1/2”	4.57 (10.08)	10.33 (630.38)	**NTIN062010N**
6	2	20	250		NTCM1P6H0	1-1/2”	4.57 (10.08)	10.33 (630.38)	**NTIN062020N**
6	2	30	250		NTCM1P6H0	2”	4.77 (10.52)	10.33 (630.38)	**NTIN062030N**
6	3	10	250		NTCM1P6H0	1-1/2”	4.60 (10.14)	10.33 (630.38)	**NTIN063010N**
6	3	20	250		NTCM1P6H0	1-1/2”	4.60 (10.14)	10.33 (630.38)	**NTIN063020N**
6	3	30	250		NTCM1P6H0	2”	4.60 (10.14)	10.33 (630.38)	**NTIN063030N**

① *For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NTIN011010**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NTIN011010**M**.*

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Nutsteel® NTVO Voltmeter and NTAM Ammeter

Weatherproof. Watertight

NBR IEC:
IP65

Applications

- Suitable for use with enclosures for controlling equipment in industrial processes.
- Suitable for environments containing moisture, non-flammable gases and vapors.

Features

- Ammeter or voltmeter devices with electromagnetic coil compatible with alternating (AC) or continuous (DC) current.
- Reset button clears to zero.
- Cover fixed to the enclosure by means of screws and washers.
- NPT threads: Ø 3/4".
- Voltmeter
  - — Rated voltage: 0-600V
  - — Frequency: 15-400 Hz
  - — Consumption: 2.5 VA
  - — Permanent overload: 20%
  - — Instantaneous overload: not applicable
  - — Terminal connections: screw type
- Ammeter
  - — Rated voltage: 0-200A
  - — Frequency: 15-400 Hz
  - — Consumption: 2.5 VA
  - — Permanent overload: not applicable
  - — Instantaneous overload: 2 x In
  - — Terminal connections: screw type

Standard Material

- Enclosure and cover: copperfree, die cast aluminum
- Screws and washers: AISI 304 stainless steel



- Display glass: thermal shock and impact resistant tempered flat glass
- Seal: neoprene

Standard Finishes

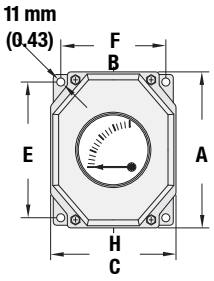
- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

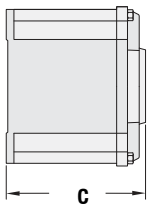
Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NTAM010T01**B**.
- For Metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NTAM010T01**M**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection: IP65
- Other Standards: ABNT NBR IEC 60529 (IP)





Volts or Amps	Ø NPT Thread (B) (H)	Dimensions (in/mm) A	C	D	E	F	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
Voltmeter — Volts									
0-30	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTVO030T01N**
0-50	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTVO050T01N**
0-100	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTVO100T01N**
0-150	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTVO150T01N**
0-250	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTVO250T01N**
0-300	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTVO300T01N**
0-500	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTVO500T01N**
0-600	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTVO600T01N**
Ammeter — Amps									
0-10	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTAM010T01N**
0-20	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTAM020T01N**
0-30	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTAM030T01N**
0-50/5	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTAM050T01N**
0-80/5	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTAM080T01N**
0-100/5	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTAM100T01N**
0-150/5	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTAM150T01N**
0-200/5	3/4"	190 (7.48)	160 (6.30)	140 (5.51)	165 (6.50)	130 (5.12)	2.98 (6.57)	4.25 (630)	**NTAM200T01N**

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A.T.X.® SWE Series 16 and 20 Amp Switches, Circuit Breakers, and "Break Glass" Call Points

Increased Safety

ATEX/IEC:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK09 or IK10

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de ou demb IIC Gb
Ex tb IIIC Db
IP66

Applications

- Designed to prevent operation in explosive atmospheres during connect and disconnect operation of lighting and light power loads.
- For use in hazardous areas where ignitable vapors, gases or highly combustible dusts are present.
- For installation in chemical and petrochemical plants, refineries and other process industries.

Features

- Available up to 690 Volts, and up to 20 Amps
- 16 Amp version:
  - — Two bottom M20 clearance holes.
  - — Switch mechanism fixed at the bottom of the box.
  - — Termination:
    - – Type 1: 2.5 mm^2 (0.004 in^2)
    - – Type 2: 2.5 mm^2 (0.004 in^2) flexible, 4 mm^2 (0.006 in^2) solid
  - — Internal earth:
    - – 2 x 2.5 mm^2 (0.004 in^2) terminals
  - — Supplied with:
    - – 1 x white self-adhesive laminated plastic label with black lettering – 58 mm x 18 mm (2.28" x 0.71")
- 20 Amp version:
  - — Two M20 threaded entries on the bottom of the box.
  - — Switch mechanism fixed on the bottom of the box.
  - — Padlockable handle in position 0 using maximum 4 padlocks – maximum handle diameter 8 mm (0.315") and minimum 15 mm (0.59") length.
  - — Termination:
    - – 2.5 mm^2 (0.004 in^2) flexible/4 mm^2 (0.006 in^2) solid
  - — Internal earth:
    - – 2 x 4 mm^2 (0.006 in^2) terminals
  - — Supplied with:
    - – 1 x yellow self-adhesive laminated plastic label with black lettering – 65 mm x 18 mm (2.56" x 0.71")

Standard Materials

- 16 Amp version:
  - — Polyamide box.
  - — A2 stainless steel coarse pitch screws (1 and a half turn).
  - — Polyamide cable glands.
  - — Nickel plated brass locknuts.
- 20 Amp version:
  - — Polyester box
  - — A2 stainless steel captive screws.
  - — Polyamide cable glands.

ATEX/IEC Certifications and Compliances

- Certification Type PCe
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex de IIC
    - – T Rating: T6
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T80 °C (T176 °F)
- Ambient Temperature: -20 °C to +40 °C (-4 °F to +104 °F)
- CE Declaration of Conformity: 50221
- ATEX Certificate: LCIE 00 ATEX 60472
- IEC Certificate: LCIE Ex 00.017
- Other Certifications: GOST R



16 A Version – Type 1



16 A Version – Type 2



20 A Version

- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10 (Polyester)/IK09 (Polyamide)
- Ex standards: EN/IEC 60079-0; 60079-1; 60079-7; 61241-0; 61241-1
- Product standards: EN/IEC 60947-1; 60947-3; 60947-5
- EMC standards: EN/IEC 55015; 61547
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type PCe
  - — Gas: Zone 1 and 2
    - —IEC Marking: Ex de IIC/Ex demb IIC Gb
    - —T Rating: T5/T6
  - — Dust: Zones 21 and 22
    - —IEC Marking: Ex tb IIIC Db
    - —Surface Temperature: +80 °C to 95 °C (+176 °F to +203 °F)
    - — Ambient Temperature: -55 °C to +60 °C (-67 °F to +140 °F)
  - —INMETRO Ordinance: 179
  - —INMETRO Certificate: BVC 11.0640-X
  - —Ingress Protection: IP66
  - —Impact Resistance (shock): IK09
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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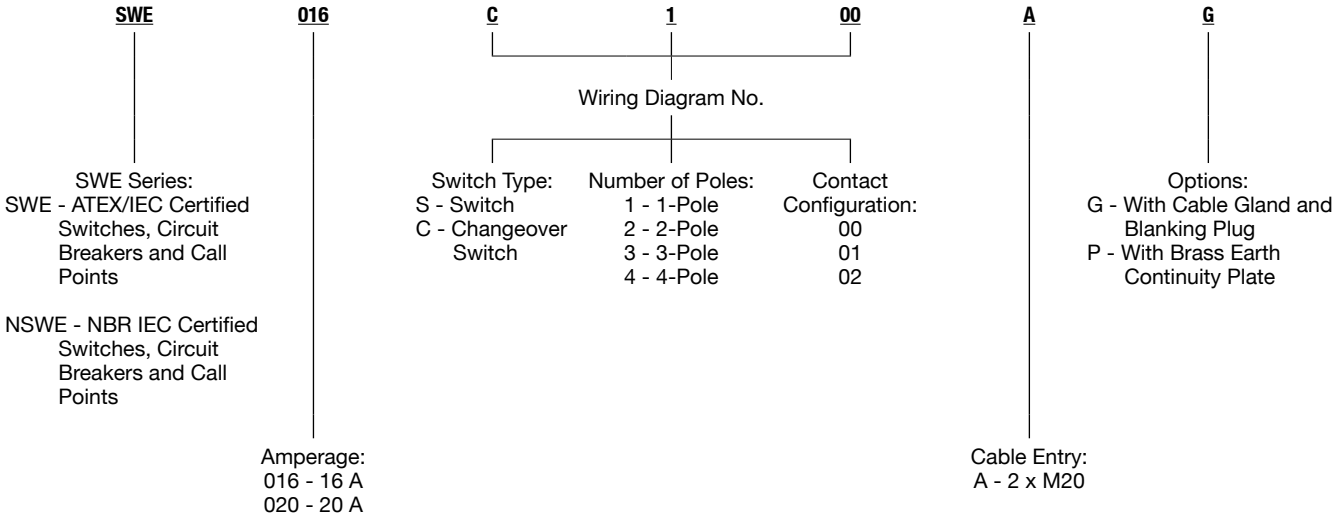
A.T.X.® SWE Series 16 and 20 Amp Switches, Circuit Breakers, and "Break Glass" Call Points

Increased Safety

ATEX/IEC:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66 - IK09 or IK10

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de ou demb IIC Gb
Ex tb IIIC Db
IP66

Catalog Numbering Guide



Switch Type	Wiring Diagram No.	Type	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
16 Amp Switch — Type 1 — Padlockable handle — Two M20 polyamide cable glands (cable dia. 6.5 to 14.5 mm) on the bottom						
Changeover switch	C101	1	0.53 (1.17)	2 (122.05)	**SWE016C101AG**	**NSWE016C101AG**
2-pole	S201	1	0.53 (1.17)	2 (122.05)	**SWE016S201AG**	**NSWE016S201AG**
16 Amp Twist Button - Type 2 — Non-padlockable handle — Two M20 clearance holes on the bottom						
Changeover switch	C100	2	0.50 (1.10)	2 (122.05)	**SWE016C100A**	**NSWE016C100A**
2-pole	S200	2	0.50 (1.10)	2 (122.05)	**SWE016S200A**	**NSWE016S200A**
20 Amp Switch — Padlockable handle — Two M20 polyamide cable glands (cable dia. 6.5 to 14.5 mm) on the bottom						
Changeover switch	C100	—	1 (2.20)	2 (122.05)	**SWE020C100AG**	**NSWE020C100AG**
2-pole	S202	—	1 (2.20)	2 (122.05)	**SWE020S202AG**	**NSWE020S202AG**
3-pole	S301	—	1 (2.20)	2 (122.05)	**SWE020S301AG**	**NSWE020S301AG**
4-pole	S401	—	1 (2.20)	2 (122.05)	**SWE020S401AG**	**NSWE020S401AG**

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A.T.X.® SWE Series 16 and 20 Amp Switches, Circuit Breakers, and "Break Glass" Call Points

Increased Safety

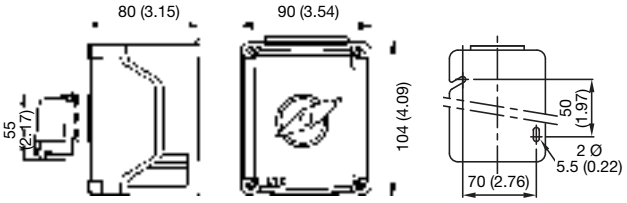
ATEX/IEC:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK09 or IK10

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de ou demb IIC Gb
Ex tb IIIC Db
IP66

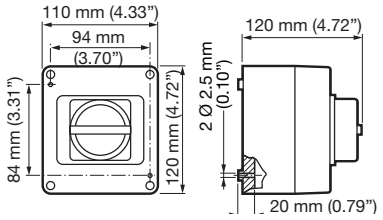
Main Contacts	16 Amps Type 1	16 Amps Type 2	20 Amps
Rated Insulation Voltage	750 V	500 V	500 V
Rated Operating Voltage	690 Vac/110 Vdc	500 V	500 V
Rated Operating Current	16 Amp	16 Amp	20 Amp
Switching Capacity			
AC 1	16 Amp, 690 V	16 Amp, 500 V	—
AC 12	—	16 Amp, 400 V	—
AC 14	—	10 Amp, 400 V	—
AC 15	16 Amp, 415 V	6 Amp, 500 V	—
AC 21	—	—	16 Amp, 500 V
AC 23	—	—	16A mp, 400 V
AC 3	08 Amp, 500 V	—	—
AC 3	04 Amp, 690 V	—	—
DC 1	10 Amp, 24 V	—	—
DC 1	06 Amp, 60 V	—	—
DC 1	06 Amp, 110 V ①	—	—
DC 13	—	1 Amp, 110 V	—
DC 13	—	2 Amp, 24 V	—
Termination (flexible/solid)	2.5 mm^2/4 mm^2 (0.004 in^2/0.006 in^2)	2.5 mm^2 (0.004 in^2)	2.5 mm^2/4 mm^2 (0.004 in^2/0.006 in^2)

Dimensions in Millimeters (Inches)

16 Amp Version



20 Amp Version



Switching Arrangement
X Denotes "Closed Contact"

16 Amp Switch

C101

Positions	Contacts 11–12	23–24
0	X	
1		X

S201

Positions	Contacts 13–14	23–24
0		
1	X	X

16 Amp Twist Button

C100

Positions	Contacts 1–2	3–4
0	X	
1		X

S200

Positions	Contacts 3–4	3–4
0		
1	X	X

20 Amp Switch

C100

Positions	Contacts 1–2	3–4
0	X	
1		X

S202

Positions	Contacts 1–2	3–4
0		
1	X	X

S301

Positions	Contacts 1–2	3–4	5–6
0			
1	X	X	X

S401

Positions	Contacts 1–2	3–4	5–6	7–8
0				
1	X	X	X	X

① *2 contacts connected in series.*

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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A.T.X.® SWE Series 40, 63 and 160 Amp Switches, Circuit Breakers, and "Break Glass" Call Points

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC
IP66

Applications

- Designed to prevent operation in explosive atmospheres during connect and disconnect operation of power loads.
- For use in hazardous areas where ignitable vapors, gases or highly combustible dusts are present.
- For installation in chemical and petrochemical plants, refineries and other process industries.

Features

- Available up to 690 Volts, and up to 160 Amps
- 63 Amp version:
  - — Padlockable handle in position “O” using max. 4 padlocks [maximin handle diameter 8 mm (0.315 in) and minimum 15 mm (0.59 in) length].
  - — 3 or 4-pole switch mechanism with one ‘NO’ early break auxiliary contact.
  - — Main contact termination: 35 mm^2 (0.054 in^2).
  - — Auxiliary contact termination: 2.5 mm^2 (0.004 in^2).
  - — Supplied with:
    - – Cable entries:
      - – 1 x M32 clearance on top
      - – 1 x M32 and 1 x M20 clearance on bottom
    - – Supplied with:
      - – 2 x M32 polyamide cable glands – cable 10 mm to 25 mm (0.39" to 0.98")
      - – 1 x M20 blanking plug
      - – 1 x yellow self-adhesive laminated plastic label with black lettering – 65 mm to 18 mm (2.56" x 0.71")
- 160 Amp version:
  - — Hinged door.
  - — Closed with plastic double bar locks (key supplied).
  - — Supplied with 4 fixing lugs.
  - — Padlockable handle in position “O”.
  - — 3 or 4-pole switch mechanism with one ‘NO’ early break auxiliary contact.
  - — Main contact termination: 120 mm^2 (0.1860 in^2).
  - — Auxiliary contact termination: 2.5 mm^2 (0.004 in^2).
  - — Supplied with:
    - – Cable entries:
      - – 1 x M63 clearance on top
      - – 1 x M63 and 1 x M25 clearance on bottom
    - – Supplied with:
      - – 2 x M63 polyamide cable glands – cable 36 mm to 44 mm (1.42" to 1.73")
      - – 1 x M25 blanking plug

Standard Materials

- Polyester (GRP) box.
- 316L stainless steel box.
- A2 stainless steel captive screws.
- Polyamide cable glands and blanking plugs.
- Nickel plated brass locknut.

ATEX/IECEx Certifications and Compliances

- Certification Type: CAe (Polyester box)
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex de IIC
    - – T Rating: T5 at +40 °C (+104 °F), T4 at +55 °C (+131 °F)
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T95 °C (T203 °F) at +40 °C (+104 °F), T130 °C (T266 °F) at +55 °C (+131 °F)



40 A/63 Amp Version



160 Amp Version

  - — Ambient Temperature: -30 °C to +55 °C (-22 °F to +131 °F), -20 ºC to +55 ºC (-4 ºF to +131 ºF) (40 A and 63 A)
  - — CE Declaration of Conformity: 50235
  - — ATEX Certificate: LCIE 02 ATEX 6248X
  - — IEC Certificate: LCI 04.0016X
  - — Other Certifications: GOST R
  - — Ingress Protection: IP66
  - — Impact Resistance (shock): IK10
- Certification Type: JBe (Stainless steel box)
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex de IIC
    - – T Rating: T5 at +40 °C (+104 °F), T4 at +55 °C (+131 °F)
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T95 °C at +40 °C, T130°C at +55°C
  - — Ambient Temperature: -30 °C to +55 °C (-22 °F to +131 °F), -20 ºC to +55 ºC (-4 ºF to +131 ºF)
  - — CE Declaration of Conformity: 50232
  - — ATEX Certificate: LCIE 02 ATEX 6118X
  - — IEC Certificate: LCI 11.0008X
  - — Other Certifications: GOST R
  - — Ingress Protection (solid and liquid): IP66
  - — Impact Resistance (shock): IK10
- Ex standards: EN/IEC 60079-0; 60079-1; 60079-7; 61241-0; 61241-1
- Product standards: EN/IEC 60947-1; 60947-3
- EMC standards: EN/IEC 55015; 61547
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: CAe (Polyester box)
  - — Gas: Zone 1 and 2
    - – IEC Marking: Ex de IIC
    - – T Rating: T3/T6
  - — Dust: Zones 21 and 22
    - – IEC Marking: Ex tb IIIC Db
    - – Surface Temperature: +80 °C to +95 °C (+176 °F to +203 °F)
    - – Ambient Temperature: -55 °C to +60 °C (-67 °F to +140 °F)
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 12.0421-X
- Ingress Protection: IP66
- Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-18, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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A.T.X.® SWE Series 40, 63 and 160 Amp Switches, Circuit Breakers, and "Break Glass" Call Points

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC
IP66

Catalog Numbering Guide

SWE **040** **S** **3** **00** **A** **G**

SWE Series:
SWE - ATEX/IECEx Certified Switches, Circuit Breakers and Call Points

NSWE - NBR IEC Certified Switches, Circuit Breakers and Call Points

Amperage:
040 - 40A
063 - 63 A
160 - 160 A

Wiring Diagram No.

Switch Type:
S - Switch
C - Changer or Selector Switch

Number of Poles:
3 - 3-Pole
4 - 4-Pole

Contact Configuration:
00
01
02

Cable Entry:
A - 2 x M20
B - 3 x M20
C - 2 x M25
D - 2 x M25 + 1 x M20
E - 2 x M32 + 1 x M20
F - 2 x M40 + 1 x M20
G - 2 x M50 + 1 x M20
H - 2 x M63 + 1 x M20
J - 2 x M63 + 1 x M25

Options:
G - With Cable Gland and Blanking Plug
P - With Brass Earth Continuity Plate
S - Stainless Steel Box

Switch Type	Wiring Diagram No.	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
63 A Switch – 2 x M32 + 1 x M20 – Polyester Box					
3-pole switch	S302	8 (17.64)	14.5 (884.8)	**SWE063S302EG**	**NSWE063S302EG**
4 Pole Switch	S402	8 (17.64)	14.5 (884.8)	**SWE063S402EG**	**NSWE063S402EG**
160 A Switch – 2 x M63 + 1 x M25 – Polyester Box					
3-pole switch	S302	16 (35.27)	75 (4576.8)	**SWE160S302JG**	**NSWE160S302JG**
4 Pole Switch	S402	16 (35.27)	75 (4576.8)	**SWE160S402JG**	**NSWE160S402JG**
160 A Switch – 2 x M63 + 1 x M25 – Stainless Steel Box					
4-pole switch	S402	25 (55.12)	75 (4576.8)	**SWE160S402JS**	**NSWE160S402JS**

Switching Arrangement — X Denotes "Closed Contact"

S302

Positions	Contacts Aux	1	2	3
0				
1	X	X	X	X

S402

Positions	Contacts Aux	1	2	3	4
0					
1	X	X	X	X	X

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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A.T.X.® SWE Series 40, 63 and 160 Amp Switches, Circuit Breakers, and "Break Glass" Call Points

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex de IIC
IP66

Main Contacts	63 Amps	160 Amps
Rated Insulation Voltage	690 Vac	690 Vac
Rated Operating Voltage	690 Vac	690 Vac
Rated Operating Current	63 Amp	160 Amp
Rated Surge Voltage	6 KV	8 KV
Switching Capacity		
AC 21 A/AC 22 A	63 Amp, 230 V to 690 V	160 Amp, 400 V to 690 V
AC 23 A	15 kW, 230 V 22 kW, 400 V 30 kW, 500 V 18.5 kW, 690 V	 80 kW, 400 V 110 kW, 500 V 55 kW, 690 V
AC 3	11 kW, 230 V 18.5 kW, 400 V 22 kW, 500 V 15 KW, 690 V	 90 kW, 400 V 70 kW, 500 V
DC 21	—	160 Amp, 220 V ① 160 Amp, 440 V ①
DC 22	—	160 Amp, 220 V ① 100 Amp, 440 V ①
DC 23	—	160 Amp, 220 V ① 63 Amp, 440 V ①
Auxiliary Contacts		
Rated Insulation Voltage	400 V	230 V
Rated Operating Voltage	400 V	230 V
Rated Operating Current	10 Amp	10 Amp
Switching Capacity		
AC 15	6 Amp, 230 V 4 Amp, 400 V	6 Amp, 230 V
Others		
Termination (flexible/solid)	35 mm^2 (0.054 in^2)	120 mm^2 (0.186 in^2)

① *2 contacts connected in series per pole.*

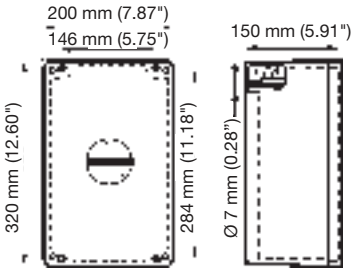
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A.T.X.® SWE Series 40, 63 and 160 Amp Switches, Circuit Breakers, and "Break Glass" Call Points

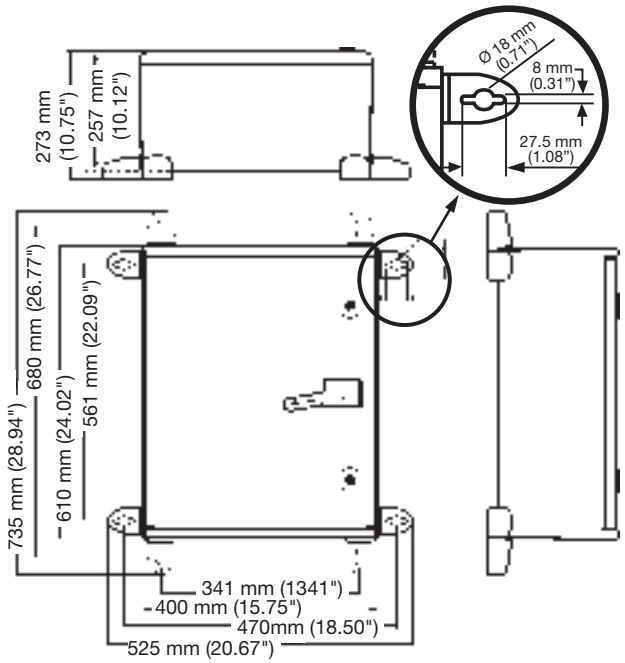
Increased Safety

Dimensions in Millimeters (Inches)

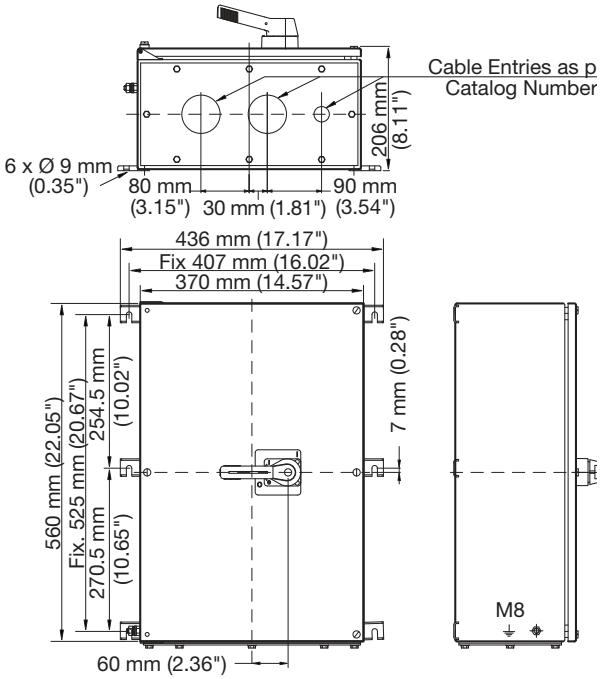
40 Amp/63 Amp Polyester Version



160 Amp Polyester Version



160 Amp Stainless Steel Version



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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NESET Electronic Siren

Explosionproof

NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66



Applications

- Siren is used to distribute sound over a large area.
- Used in areas where there is a risk of explosion; in industries such as:
  - — Chemical manufacturing
  - — Petrochemicals manufacturing
  - — Paint and varnish manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing facilities

Features

- Siren with microprocessor allows user to choose from among 32 variations of tone.
- Local switching can be internally selected by a switch connected to the circuit that allows 32 combinations.
- As an option, there is the possibility of remote switching from one of these combinations whereby the alarm sound can be modified with the use of a two command button; by pressing the first button the alarm changes sound function and by pressing the second button the sound changes again.
  - — Example: the internal switch is set to ↑ ↑ ↑ ↑ "Toxic Gas Alarm" (Continuous sound at 1 kHz); by pressing the first button on the alarm will switch to "Prepare to Abandon Platform" (1200/500 Hz by 1 Hz); by pushing the second button, the alarm will switch to "General Alarm" (100 Hz pulsating at a frequency of 0.5 Hz).
- The siren has internal volume control via an integrated potentiometer.
- Siren works with multiple input voltages: 127/220 Vac and 24/125 Vdc. Follow the wiring diagram of the connection terminal.
- Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.
- Comes standard with two Ø 3/4" NPT threaded hubs, one 3/4" close-up plug provided.
- Ex d protection: enclosure is designed to prevent an internal explosion from propagating into the external environment.

Standard Material

- Housing: copperfree, die cast aluminum
- Screws, washers, sintered, circuit mount and optional mounting bracket: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NESET001**B**.
- For Metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NESET001**M**.

NBR IEC Brazilian Certifications and Compliances

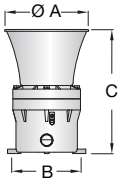
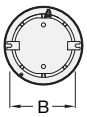
- T Rating: T6
- Ingress Protection: IP66
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 09.9747
- Other Standards: ABNT NBR IEC 60529 (IP)

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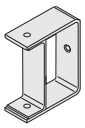
Nutsteel® NESET Electronic Siren

Explosionproof

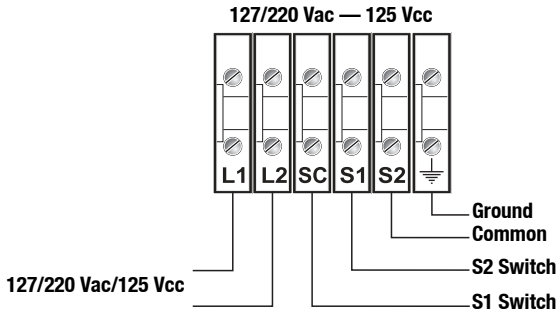
NBR IEC:
Zones 1 and 2 - 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

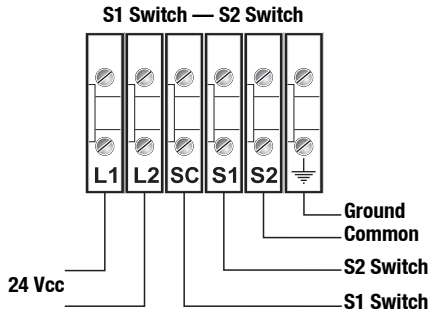
	Sound Level at 1 m (3.28 f)	Power	Voltage	Consumption	Dimensions mm (in) Ø A	B	C	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
	110 db	30 W	127 Vac 220 Vac 125 Vcc	350 ma 600 ma 600 ma	190 (7.48)	160 (6.30)	279 (10.98)	5.27 (11.62)	16.95 (1034.35)	**NESET001N**
	110 db	30 W	24 Vcc	800 ma	190 (7.48)	160 (6.30)	279 (10.98)	5.27 (11.62)	16.95 (1034.35)	**NESET002N**

Accessories

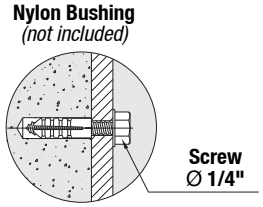
	Description	Catalog Number
	Mounting Bracket: allow the siren to be mounted in various positions	**NPSUPRT10**

Connection Scheme





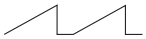
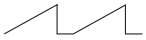
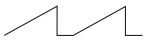
Installation — For Affixing to Masonry



ATEX/IECEx/NBR IEC INCREASED SAFETY Ex e/FLAMEPROOF Ex d ZONE 1 RATED CALL POINTS STATIONS AND AUDIO SIGNALING DEVICES

Controls

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Local Commut.	SW 1	SW 2	SW 3	SW 4	SW 5	Description of Tones and Frequencies	Description of Function	Remote Commut. S2	Remote Commut. S3
Tone 1	↑	↑	↑	↑	↑	Toxic Gas Alarm - Continuous sound at 1000H		Tone 31	Tone 11
Tone 2	↓	↑	↑	↑	↑	Sound alternating between 800 and 1000 Hz every 0.25 seconds		Tone 17	Tone 5
Tone 3	↑	↓	↑	↑	↑	Increasing sound from 500 to 1200 Hz with interval of 0.5 seconds 0.3 Hz		Tone 2	Tone 5
Tone 4	↓	↓	↑	↑	↑	Increasing-decreasing sound from 800 to 1000 Hz at 1 Hz		Tone 6	Tone 5
Tone 5	↑	↑	↓	↑	↑	Continuous sound at 2400 Hz		Tone 3	Tone 27
Tone 6	↓	↑	↓	↑	↑	Increasing-decreasing sound from 2400 to 2900 Hz at 7 Hz		Tone 7	Tone 5
Tone 7	↑	↓	↓	↑	↑	Increasing-decreasing sound from 2400 to 2900 Hz at 1 Hz		Tone 10	Tone 5
Tone 8	↓	↓	↓	↑	↑	Siren: 500/1200/500 Hz at 0.3 Hz		Tone 2	Tone 5
Tone 9	↑	↑	↑	↓	↑	Variable sound 1200/500 Hz at 1 Hz		Tone 15	Tone 2
Tone 10	↓	↑	↑	↓	↑	Sound alternating between 2400/2900 Hz at 0.5 Hz		Tone 4	Tone 5
Tone 11	↑	↓	↑	↓	↑	General alarm 100 Hz intermittent at 0.5 Hz		Tone 7	Tone 11
Tone 12	↓	↓	↑	↓	↑	Sound alternating between 800/100 Hz at 0.875 Hz		Tone 31	Tone 5
Tone 13	↑	↑	↓	↓	↑	Intermittent sound 2400 Hz at 1Hz		Tone 4	Tone 5
Tone 14	↓	↑	↓	↓	↑	Intermittent sound 800 Hz with 1 second of silence and 0.25 seconds of alarm		Tone 15	Tone 5
Tone 15	↑	↓	↓	↓	↑	Continuous sound at 800 Hz		Tone 4	Tone 5
Tone 16	↓	↓	↓	↓	↑	Intermittent sound 860 Hz with 150 milliseconds of silence and 150 milliseconds of alarm		Tone 2	Tone 5
Tone 17	↑	↑	↑	↑	↓	Sound alternating between 544 Hz (100 milliseconds)/440 Hz (400 milliseconds)		Tone 18	Tone 27
Tone 18	↓	↑	↑	↑	↓	Intermittent sound 660 Hz with 1.8 seconds of silence and 1 .8 seconds of alarm		Tone 2	Tone 5
Tone 19	↑	↓	↑	↑	↓	Increasing sound 1400/1600 Hz with 1 second and decreasing to 1400 Hz at 0.5 seconds		Tone 2	Tone 5
Tone 20	↓	↓	↑	↑	↓	Continuous sound at 660 Hz		Tone 2	Tone 5
Tone 21	↑	↑	↓	↑	↓	Sound alternating between 544/440 Hz at 1 Hz		Tone 2	Tone 5
Tone 22	↓	↑	↓	↑	↓	Intermittent sound 554 Hz at 0.875 Hz		Tone 2	Tone 5
Tone 23	↑	↓	↓	↑	↓	Pulsating sound 880 Hz at 2 Hz		Tone 2	Tone 5
Tone 24	↓	↓	↓	↑	↓	Increasing-decreasing sound from 800 to 1000 Hz at 50 Hz		Tone 6	Tone 5
Tone 25	↑	↑	↑	↓	↓	Increasing-decreasing sound from 2400 to 2900 Hz at 50 Hz		Tone 29	Tone 5
Tone 26	↓	↑	↑	↓	↓	Simulation of bell sound		Tone 2	Tone 1
Tone 27	↑	↓	↑	↓	↓	Continuous sound at 554 Hz		Tone 26	Tone 5
Tone 28	↓	↓	↑	↓	↓	Continuous sound at 440 Hz		Tone 2	Tone 5
Tone 29	↑	↑	↓	↓	↓	Increasing-decreasing sound from 800 to 1000 Hz at 7 Hz		Tone 7	Tone 5
Tone 30	↓	↑	↓	↓	↓	Australian Alert Signal 420 Hz, intermittent with interval of 0.625 seconds		Tone 32	Tone 5
Tone 31	↑	↓	↓	↓	↓	Prepare to Abandon Platform 1200/50 Hz at 1 Hz		Tone 11	Tone 1
Tone 32	↓	↓	↓	↓	↓	Increasing-decreasing sound from 500 to 1200 Hz at 3.75 and 0.25 seconds continuous at 15 Hz		Tone 26	Tone 1

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Nutsteel® NEPPS Motor Starters

Explosionproof

NRB IEC:
Zones 1 and 2
Ex d IIB Gb
Ex tb IIIB Db
IP64

Applications

- Explosionproof panel for direct on-line start of motors up to 0.75 HP at 220 V (1-phase), 1 HP at 220 V (3-phase) and 2 HP at 380 V (3-phase).
- Suitable for use in environments where there is risk of explosion, such as:
  - — Racing pits
  - — Tanker trucks
  - — Loading and unloading of fuel
- Suitable for use in industries such as:
  - — Chemical manufacturing
  - — Petrochemicals manufacturing
  - — Paint and varnish manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Flammable product storage facilities

Features

- Cover fixed to the body by screws, flat and lock washers.
- Hinges standard.
- Time relay assures automatic shutdown in 60 seconds, if the operator does not press the reset button.
- Comes fully assembled with the following components:
  - — Contactor
  - — Circuit breaker
  - — Time delay relay, adjustment 6-60 seconds
  - — "On" - "Off" button
  - — Indicator light
  - — Comes with external grounding terminal for 25 mm² (0.039 in²) cables
  - — Overload relay
- Ex d protection: enclosure is designed to prevent an internal explosion from propagating into the external environment.
- To assure the appropriate level of safety, preventing the propagation of the explosion through the gap, we recommend securing the cover with all of the screws and the torque specified.
- Comes standard with two Ø 3/4" NPT threaded hubs at bottom and one Ø 3/4" NPT close-up plug.
- Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.

Standard Material

- Enclosure body and cover: aluminum alloy
- Screws and washers: AISI 304 stainless steel
- Blanking plugs: aluminum



Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NEPPS001**N**.

NBR IEC Brazilian Certifications and Compliances

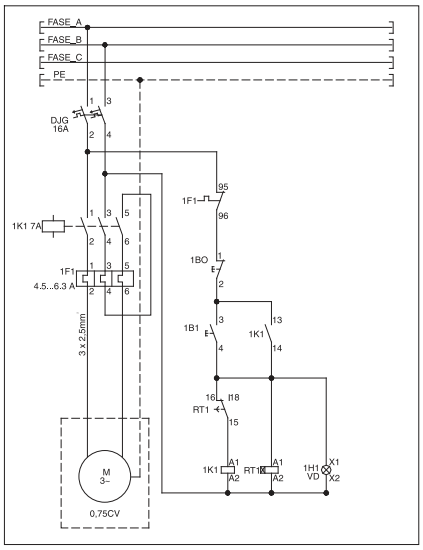
- T Rating: T6
- Ingress Protection: IP64
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- INMETRO Ordinance: 179
- INMETRO Certificate: TUV 12.0429
- Other Standards: ABNT NBR IEC 60529 (IP)

Voltage (V)	Number of Phases	Power HP	Power kW	Maximum Nominal Current (A)	Overload Relay Adjustment range (A)	Contactor (A)	Screws Torque kgf.m (lbf.in)	Screws Hex Head Screw	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
220	1	0.75	0.55	4.4	4.5 - 6.3	7	0.50 (43.40)	7/16”	9.40 (20.72)	19.00 (1159.45)	**NEPPS001N**
220	3	1	0.75	3.7	2.8 - 4.0	7	0.50 (43.40)	7/16”	9.40 (20.72)	19.00 (1159.45)	**NEPPS002N**
380	3	2	1.5	3.7	2.8 - 4.0	7	0.50 (43.40)	7/16”	9.40 (20.72)	19.00 (1159.45)	**NEPPS003N**

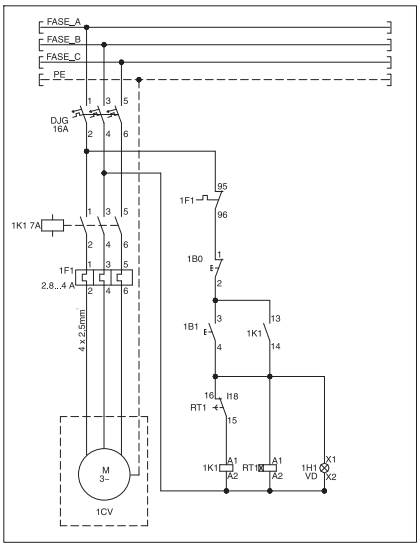
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Electrical Diagram

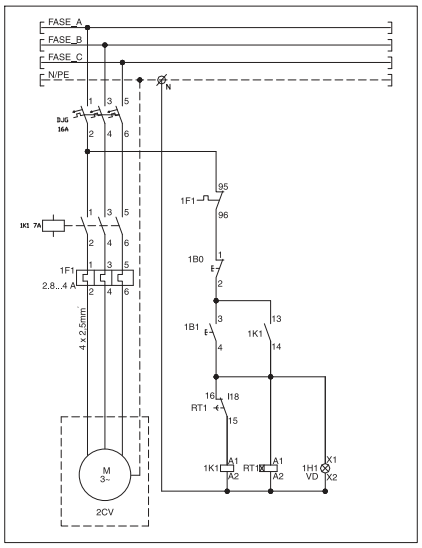
Connection at 220 V — 1–Phase Motor



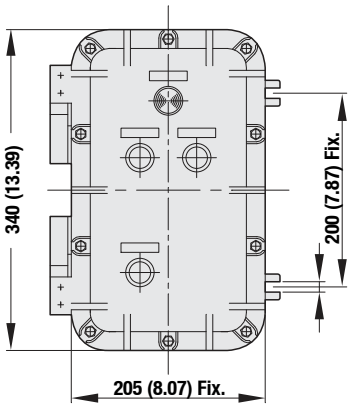
Connection at 220 V — 3–Phase Motor

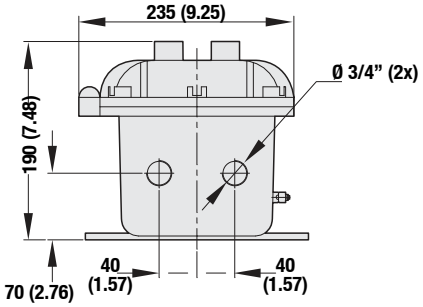


Connection at 380 V — Motor 3–Phase Motor



Dimensions in Millimeters (Inches)





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Nutsteel® NEPPM Motor Starters

Explosionproof

NBR IEC:
Zones 1 and 2
Ex d IIB Gb
Ex tb IIIB Db
IP64

Applications

- Explosionproof panel for direct on-line start of motors up to 60 HP at 220 V, 100 HP at 380 V or 125 HP at 440 V.
- Suitable for use in environments where there is risk of explosion, such as:
  - — Racing pits
  - — Tanker trucks
  - — Loading and unloading of fuel
- Suitable for use in industries such as:
  - — Chemical manufacturing
  - — Petrochemicals manufacturing
  - — Paint and varnish manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Flammable product storage facilities

Features

- Cover fixed to the body by screws, flat and lock washers.
- Hinges standard.
- Comes fully assembled with the following components:
  - — Fuses
  - — Contactor
  - — Control transformer (only for 440 V power supply)
  - — "On" - "Off" button
  - — Overload relay
- Ex d protection: enclosure is designed to prevent an internal explosion from propagating into the external environment.
- To assure the appropriate level of safety, preventing the propagation of the explosion through the gap, we recommend securing the cover with all of the screws and the torque specified.
- Comes standard with one Ø 3/4" NPT or BSP threaded hubs at top and bottom and one Ø 3/4" to 2" NPT or BSP threaded hub at bottom.
- Comes with external grounding terminal for 25 mm^2 (0.039 in^2) cables.
- Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.

Standard Material

- Enclosure body and cover: copperfree, die cast aluminum
- Screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For switch plus fuses, replace the letter **F** with the letter **S** in the 9th position, example: NEPPM103**S**4N.
- For circuit breaker switch, replace the letter **F** with the letter **D** in the 9th position, example: NEPPM103**D**4N.
- For 220 Volt, insert the number **2**, in the 10th position; example: NEPPM103F**2**N.
- For 380 Volt, insert the number **3**, in the 10th position; example: NEPPM103F**3**N.
- For 440 Volt, insert the number **4**, in the 10th position; example: NEPPM103F**4**N.
- For NPT threads, insert the letter **N**, in the 11th position; example: NEPPM103F2**N**.
- For BSP threads, insert the letter **B**, in the 11th position; example: NEPPM103F2**B**.



NBR IEC Brazilian Certifications and Compliances

- T Rating: T6
- Ingress Protection: IP64
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- INMETRO Ordinance: 179
- INMETRO Certificate: TUV 12.0429
- Other Standards: ABNT NBR IEC 60529 (IP)

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Nutsteel® NEPPM Motor Starters

Explosionproof

NBR IEC:
Zones 1 and 2
Ex d IIB Gb
Ex tb IIIB Db
IP64

3–Phase Motor													
220 V		380 V		440 V		Nominal	Max Fuse	Overload Relay Adjustment	Contact (A)	Control Transformer (VA)	Ø Thread		Base Catalog
cv	kW	cv	kW	cv	kW	Current (A)	(A)	Range (A)			Top (B) Bottom (I)	Bottom (G)	Number ①
—	—	0.16	0.12	0.16	0.12	0.5	2	0.35-0.5	7	100	3/4”	3/4”	**NEPPM101F**
—	—	—	—	0.25	0.18	0.6	2	0.45-0.63	7	100	3/4”	3/4”	**NEPPM102F**
0.16	0.12	0.25	0.18	0.33	0.25	0.7	4	0.55-0.8	7	100	3/4”	3/4”	**NEPPM103F**
—		0.33	0.25	—	—	0.9	4	0.8-1.0	7	100	3/4”	3/4”	**NEPPM104F**
0.25	0.18	0.5	0.37	0.5	0.37	1.2	4	0.9-1.2	7	100	3/4”	3/4”	**NEPPM105F**
0.33	0.25	0.75	0.55	0.75	0.55	1.6	6	1.2-1.6	7	100	3/4”	3/4”	**NEPPM106F**
—	—	1	0.75	1	0.75	1.8	6	1.4-1.8	7	100	3/4”	3/4”	**NEPPM107F**
0.5	0.37	—	—	1.5	1.1	2.4	10	1.8-2.5	7	100	3/4”	3/4”	**NEPPM108F**
0.75	0.55	1.5	1.1	2	1.5	3	10	2.8-3.2	7	100	3/4”	3/4”	**NEPPM109F**
1	0.75	2	1.5	—	—	3.7	16	2.8-3.7	7	100	3/4”	3/4”	**NEPPM110F**
1.5	1.1	3	2.2	3	2.2	5	20	3.7-5	7	100	3/4”	3/4”	**NEPPM111F**
—	—	—	—	4	3	5.8	20	5.5-6.3	7	100	3/4”	3/4”	**NEPPM112F**
2	1.5	4	3	5	3.7	7	20	5.5-8	9	150	3/4”	3/4”	**NEPPM201F**
3	2.2	5	3.7	6	4.5	9	20	7-10	12	150	3/4”	3/4”	**NEPPM202F**
4	3	6	4.5	7.5	5.5	11	20	9-11	12	150	3/4”	3/4”	**NEPPM203F**
5/6	3.7/4.5	7.5/10	5.5/7.5	10/12.5	7.5/9	16	25	12-16	17	150	3/4”	3/4”	**NEPPM204F**
—	—	12.5	9	15	11	19	35/32	14-20	25	150	1”	3/4”	**NEPPM205F**
7.5	5.5	—	—	—	—	21	35/32	17-22	25	150	1”	3/4”	**NEPPM206F**
—	—	15	11	—	—	24	35/32	20-24	25	150	1”	3/4”	**NEPPM207F**
10/12.5	7.5/9	20	15	20/25	15/18.5	27/32	63	22-32	32	150	1-1/2”	3/4”	**NEPPM208F**
15	11	25	18.5	30	22	40	63	28-40	40	150	1-1/2”	3/4”	**NEPPM209F**
—	—	30	22	—	—	43	80	36-45	50	150	1-1/2”	3/4”	**NEPPM210F**
20	15	—	—	40	30	50	80	40-50	50	150	1-1/2”	3/4”	**NEPPM211F**
25	18.5	40	30	50	37	63	125	48-63	65	150	2”	3/4”	**NEPPM212F**
30	22	50	37	60	45	70	160	57-70	80	300	2”	3/4”	**NEPPM301F**
—	—	60	45	—	—	85	160	70-90	95	300	2”	3/4”	**NEPPM302F**
—	—	—	—	75	55	90	160	80-93	95	300	2”	3/4”	**NEPPM303F**
50/60	37/45	100	75	100/125	75/90	150	200	50-200	150	300	2”	3/4”	**NEPPM304F**

① *To complete the catalog number, insert the following options:*
- *For switch plus fuses, replace the letter **F** with the letter **S** in the 9th position, example: NEPPM103**S**4N.*
- *For circuit breaker switch, replace the letter **F** with the letter **D** in the 9th position, example: NEPPM103**D**4N.*
- *For 220 Volt, insert the number **2**, in the 10th position; example: NEPPM103F**2**N.*
- *For 380 Volt, insert the number **3**, in the 10th position; example: NEPPM103F**3**N.*
- *For 440 Volt, insert the number **4**, in the 10th position; example: NEPPM103F**4**N.*
- *For NPT threads, insert the letter **N**, in the 11th position; example: NEPPM103F2**N**.*
- *For BSP threads, insert the letter **B**, in the 11th position; example: NEPPM103F2**B**.*

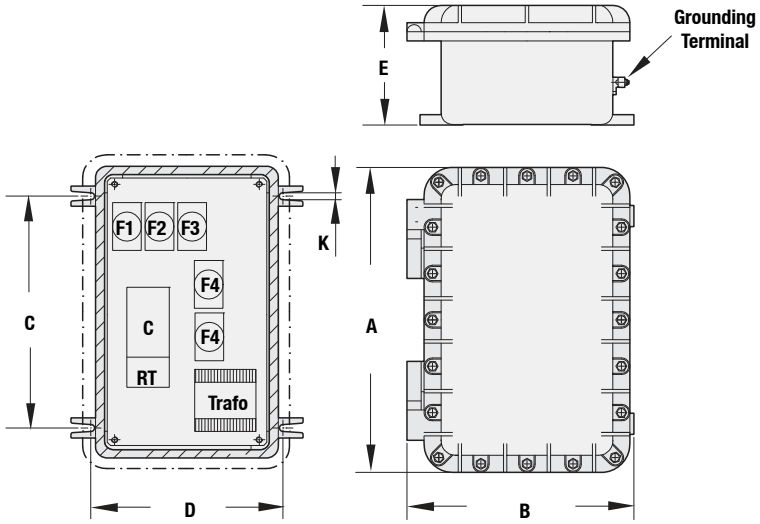
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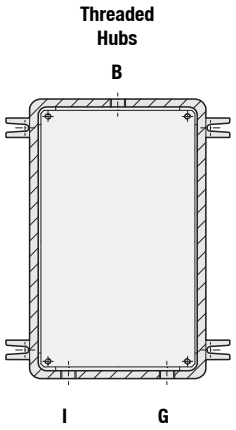
NBR IEC:
Zones 1 and 2
Ex d IIB Gb
Ex tb IIIB Db
IP64

Base Catalog Number	Dimensions mm (in)						Screws		Weight kg (lb)	Volume dm^3 (in^3)
	A	B	C	D	E	K	Torque kgf.m (lbf.in)	Hex Head		
NEPPM101F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM102F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM103F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM104F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM105F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM106F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM107F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM108F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM109F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM110F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM111F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM112F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM201F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM202F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM203F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM204F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM205F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM206F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM207F	535 (21.06)	15.55 (395)	365 (14.37)	340 (13.39)	210 (8.27)	13 (0.51)	0.50 (43.40)	9/16”	33 (72.75)	50.71 (3094.51)
NEPPM208F	700 (27.56)	480 (18.90)	500 (19.68)	420 (16.54)	285 (11.22)	16 (0.63)	0.50 (43.40)	9/16”	64 (141.10)	105.84 (6458.75)
NEPPM209F	700 (27.56)	480 (18.90)	500 (19.68)	420 (16.54)	285 (11.22)	16 (0.63)	0.50 (43.40)	9/16”	64 (141.10)	105.84 (6458.75)
NEPPM210F	700 (27.56)	480 (18.90)	500 (19.68)	420 (16.54)	285 (11.22)	16 (0.63)	0.50 (43.40)	9/16”	64 (141.10)	105.84 (6458.75)
NEPPM211F	700 (27.56)	480 (18.90)	500 (19.68)	420 (16.54)	285 (11.22)	16 (0.63)	0.50 (43.40)	9/16”	64 (141.10)	105.84 (6458.75)
NEPPM212F	700 (27.56)	480 (18.90)	500 (19.68)	420 (16.54)	285 (11.22)	16 (0.63)	0.50 (43.40)	9/16”	64 (141.10)	105.84 (6458.75)
NEPPM301F	700 (27.56)	480 (18.90)	500 (19.68)	420 (16.54)	285 (11.22)	16 (0.63)	0.50 (43.40)	9/16”	64 (141.10)	105.84 (6458.75)
NEPPM302F	700 (27.56)	480 (18.90)	500 (19.68)	420 (16.54)	285 (11.22)	16 (0.63)	0.50 (43.40)	9/16”	64 (141.10)	105.84 (6458.75)
NEPPM303F	700 (27.56)	480 (18.90)	500 (19.68)	420 (16.54)	285 (11.22)	16 (0.63)	0.50 (43.40)	9/16”	64 (141.10)	105.84 (6458.75)
NEPPM304F	700 (27.56)	480 (18.90)	500 (19.68)	420 (16.54)	285 (11.22)	16 (0.63)	0.50 (43.40)	9/16”	64 (141.10)	105.84 (6458.75)

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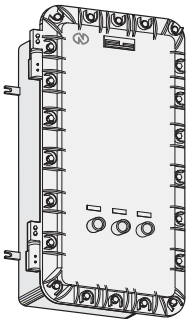
Dimensions





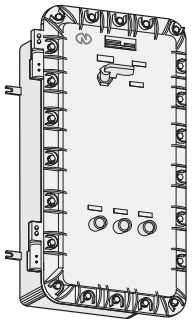
Standard Panelboard

Panel with Fuses

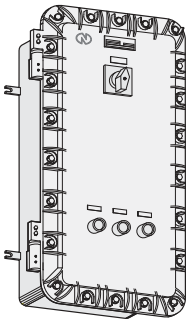


Optional Panelboards

Panel with Circuit Breaker



Panel with Switch



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Nutsteel® NEBLD Digital Ground Controller

Explosionproof

NBR IEC:
Zones 1 and 2
Ex d IIB
IP65

Applications

- Used to ground vehicles while handling (loading and unloading) flammable liquids.
- Suitable for use in environments where there is risk of explosion, such as:
  - — Racing pits
  - — Tanker trucks
  - — Loading and unloading of fuel

Features

- Panel comes complete with 8 meters (8.75 yards) of flexible cable and an alligator ground clamp.
- Cover fixed to the body by screws, flat washers and pressure washers.
- Surface mount using four screws.
- Comes standard with two Ø 3/4" NPT threaded entries and one Ø 3/4" NPT close-up plug.
- How it works:
  - — A moving vehicle can generate up to 3,000 volts of electric potential, a result of storage of static energy as a function of friction between the vehicle and the air. The digital ground controller was designed to equalize the static electricity safely. Its main features include the following:
    - – Safely performs grounding of vehicles, equalizing the difference in potential between the earth and the vehicle.
    - – Grounds the vehicle gradually, without generating sparks.
    - – Equipment is automatic, thus eliminating the possibility of human error during the grounding procedure.
    - – The grounding controller has a micro-controller that allows it to execute the tasks of self-diagnosis and calibration.
    - – If there is a failure in the grounding system, the micro-controller does not release the pump for loading/unloading.
- Impedance range of the object to be grounded:
  - — Mode 1: 400 to 10,000 pF in parallel, minimum resistance = 1KW.
    - – In this Mode, the equipment will not ground previously grounded vehicles, i.e., in contact with the Earth. (Will not ground rail cars on tracks, for example)
  - — Mode 2: maximum resistance = 2KW. In this Mode, the equipment will ground previously grounded vehicles (rail cars on tracks, semi trailers supported on metal landing gear, metal drums, etc.).
    - – Note: Configuration between Mode 1 or 2 is done via internal jumper selection on the printed circuit board.
  - — Other impedance ranges upon request.
- Outputs:
  - — 1 SPDT contact with a capacity for 220 Vac/1A.
  - — 1 output in open manifold, NPN type, optically isolated, with capacity for 24 Vcc/50 mAcc.
- Indicator lights:
  - — Visual indication of operating status via LED that shows four states (L1-L4), where.
    - – **L1** - Red LED continuously on and green LED off: Indicates that the instrument is in standby and that there is no object connected to it or it does not have a safe and stable connection.



    - – **L2** - Red LED off and green LED continuously on: Indicates that the object connected to the instrument is grounded.
    - – **L3** - Red LED off and green LED flashing: (You should switch to Mode 2) indicates that the object connected to the digital ground controller was previously grounded, in this state the device is just informing that the internal jumper must be changed so that the ground is made (indicates it is in Mode 1).
    - – **L4** - Red and green LEDs off: Indicates that the equipment, if turned on, either has burnt-out LED or is failing.
- Ex d protection: enclosure is designed to prevent an internal explosion from propagating into the external environment.
- 2 year limited warranty.

Standard Material

- Enclosure body and cover: copperfree, die cast aluminum
- Screws and washers: AISI 304 stainless steel
- Blanking plugs: aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

NBR IEC Brazilian Certifications and Compliances

- T Rating: T6
- Ingress Protection: IP65
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.0651
- Other Standards: ABNT NBR IEC 60529 (IP)

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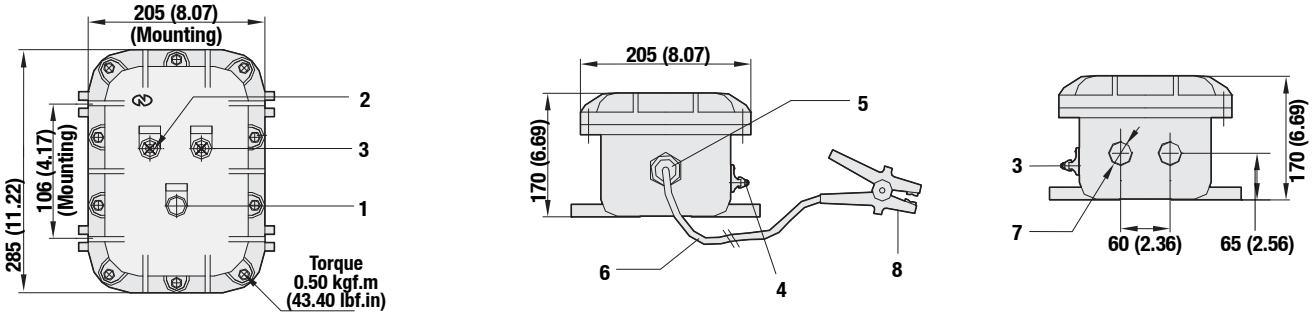
Nutsteel® NEBLD Digital Ground Controller

Explosionproof

NBR IEC:
Zones 1 and 2
Ex d IIB
IP65

Supply Voltage	Hz Range	Power	Consumption	Protection	Flexible Cable Length	Weight kg (lb)	Catalog Number
90/240 Vac	50 or 60	2.40 Watts	200 mA to 12 Vcc	100 mA Fuse	8 m (8.75 yd)	10.20 (22.49)	**NEBLD590**

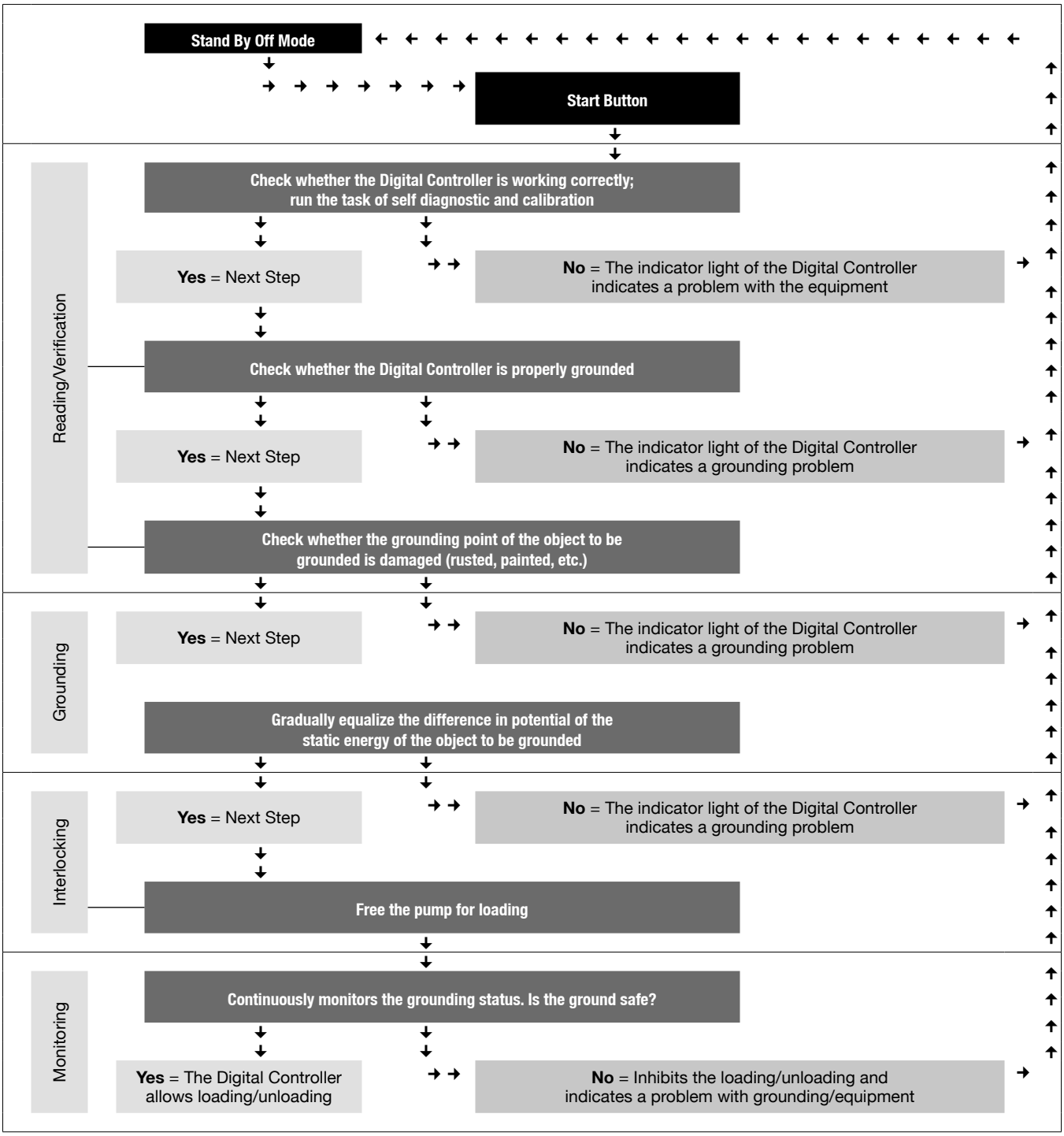
Dimensions in Inches/Millimeters



1 - Push Button: Green
2 - Indicator Light: Red
3 - Indicator Light: Green
4 - Grounding Terminal: 25 mm² (0.039 in²)
5 - Cable Gland: 3/4" NPT
6 - Flexible Cable 0.6 to 1.0 kV, 25 mm (0.98 in)
7 - Threaded Entries: 3/4" NPT or BSP
8 - Ground Clamp

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Operational Flowchart



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SD Series Static Discharge Grounding Reelites®

Applications

- SD Static Discharge Reelites are used for grounding portable machines or equipment operating in hazardous atmospheres. These Reelites safely dissipate static electrical buildup and reduce the chance of a spark and resulting explosion.
- SD Series Reelites are spring-driven and carry various lengths of wire cable with grounding clamps. They are applied to:
  — Fuel-transfer trucks
  — Barges
  — Dock side loading facilities
  — Grain elevators
  — Hazardous maintenance areas
  — Wherever flammable liquids or combustible dust is present
- Maximum Vdc resistance through Reelite and cable is approximately one ohm for each 15.2 meters (50 feet) of 2.38 mm (3/32") steel aviation control cable. On Reelites carrying 14 gauge, stranded, rubber-covered, copper cable, maximum Vdc resistance is approximately 0.15 ohms per 15.2 meters (50 feet) of cable.
- SD11 Series
  — Lightweight, compact, enclosed, all-steel construction.
  — 15.2 meter (50 foot) single or Y-type cable lengths in 3/32" galvanized steel aviation control cable with or without nylon jacket.
  — 100 Amp universal jaw type grounding clamp.
  — Gravity type ratchet.
  — Mounts on ceiling, wall or with base down to a clean, unpainted conductive surface to assure positive electrical continuity through frame.
- SD50A thru SD100A Series
  — Lightweight and compact. Rugged open drum design with all steel construction.
  — Available with cable lengths from 15.2 meters (50 feet) to 30.5 meters (100 feet), single and Y-type construction.

Standard Materials

- SD11, SD50A thru SD100A: all steel construction

Standard Finishes

- SD11 series: red epoxy powder coat
- SD50A thru SD100A Series: yellow epoxy/polyester powder coat

Options

- Stainless steel cable, nylon jacketed steel cable, or rubber-covered copper cable #14.
- An SDG grounding stud and SDP grounding plug, required by some state regulations, provides positive grounding and prevents accidental cable severing.
- Stainless steel cable is available, add suffix **-SS**
- Without ratchet, add suffix **-LR**



SD11 Series



SD50A thru SD100A Series



SDG
Permanent grounding stud for 2.38 mm (13/32") hole. Thread 3/8 — 16 UNC-2B.



SDP
Positive grounding plug. Without cord.

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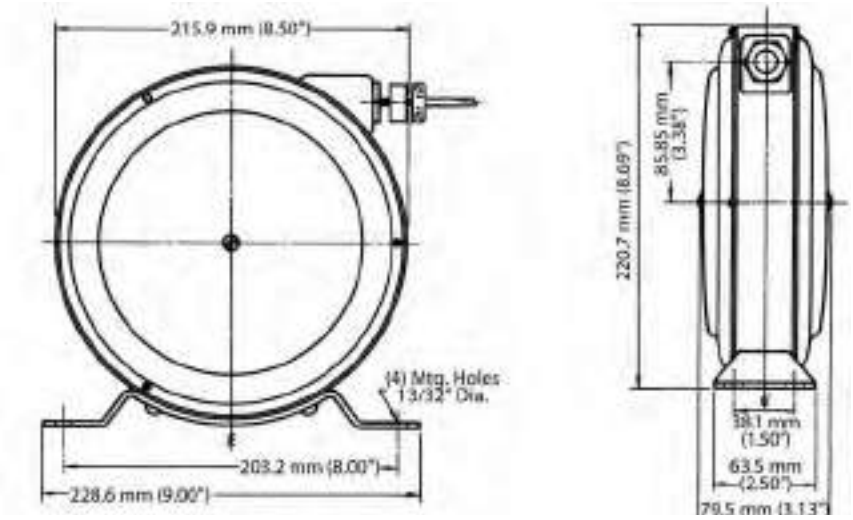
SD Series Static Discharge Grounding Reelites®

	Description	Catalog Number NEC	NBR IEC
	15.2 meters (50 feet) of 2.38 mm (3/32") galvanized steel aviation control cable. 1 ohm D.C. resistance.	**SD11**	**NSD11**
	15.2 meters (50 feet) of 2.38 mm (3/32") nylon covered galvanized steel aviation control cable. 1 ohm D.C. resistance.	**SD11N**	**NSD11N**
	15.2 meters (50 feet) total cable length consisting of 10.7 meters (35 feet) of 2.38 mm (3/32") galvanized steel aviation control cable branching out to two 4.6 meters (15 feet) lengths with grounding clamps. 1 ohm D.C. resistance.	**SD11Y**	**NSD11Y**
	15.2 meters (50 feet) of 2.38 mm (3/32") galvanized steel aviation control cable. 1 ohm D.C. resistance.	**SD50A**	**NSD50A**
	15.2 meters (50 feet) of 2.38 mm (3/32") galvanized-steel cable with 1/64" nylon jacket. 1 ohm D.C. resistance.	**SD50AN**	**NSD50AN**
	15.2 meters (50 feet) of rubber covered 14 gauge stranded copper cable. 0.3 ohm D.C. resistance.	**SD50AR**	**NSD50AR**
	30.5 meters (100 feet) of 2.38 mm (3/32") galvanized steel cable with 0.40 mm (1/64") nylon jacket. 1.5 ohm D.C. resistance.	**SD100AN**	**NSD100AN**
	30.5 meters (100 feet) of 2.38 mm (3/32") galvanized steel aviation control cable. 2 ohms D.C. resistance.	**SD100A**	**NSD100A**
	22.9 meters (75 feet) total cable length consisting of 15.2 meters (50 feet) of 2.38 mm (3/32") galvanized steel aviation control cable branching out to two 7.6 meters (25 feet) lengths with grounding clamps. 1.5 ohms D.C. resistance.	**SD75AY**	**NSD75AY**
	30.5 meters (100 feet) total cable length consisting of 22.9 meters (75 feet) of 2.38 mm (3/32") galvanized steel aviation control cable branching out to two 7.6 meters (25 feet) lengths with grounding clamps. 2.0 ohms D.C. resistance.	**SD100AY**	**NSD100AY**
	Permanent Grounding Stud for 2.38 mm (3/32") hole. Thread 3/8-16 UNC-2B.	**SDG**	**NSDG**
	Positive Grounding Plug. Without cord. #14 Type "S" 0.265 max.	**SDP**	**NSDP**

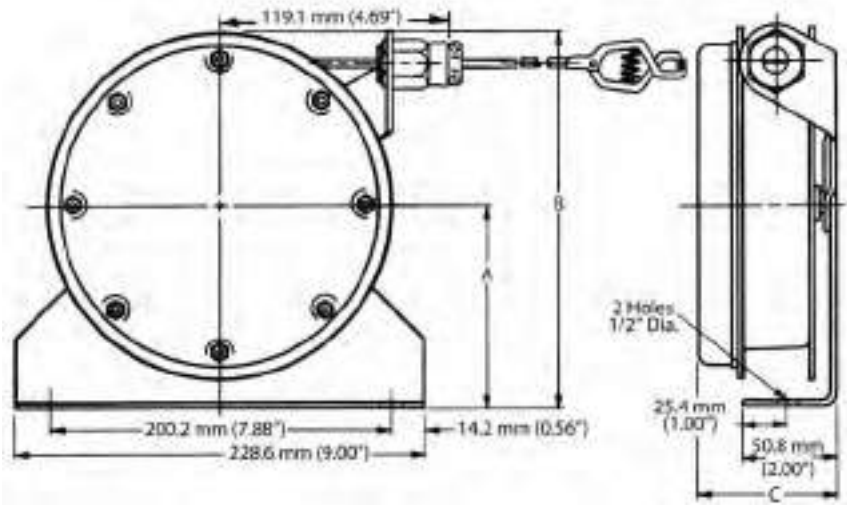
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SD Series Static Discharge Grounding Reelites® Dimensions

Dimensions in Millimeters (Inches)



SD11 Series



SD50A thru SD100A Series

Catalog Number	Dimensions in Millimeters (Inches) A	B	C
SD50A	112.8 (4.44)	215.9 (8.50)	76.2 (3.00)
SD100A	127.0 (5.00)	244.6 (9.63)	95.3 (3.75)
SD75AY	127.0 (5.00)	244.6 (9.63)	95.3 (3.75)
SD100AY	127.0 (5.00)	244.6 (9.63)	95.3 (3.75)
SD50AR	127.0 (5.00)	244.6 (9.63)	95.3 (3.75)

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A.T.X.® TRE Series Ex e Transformers

Increased Safety

ATEX/IEC:
Zone 1 and 2
Ⓔx II 2 G

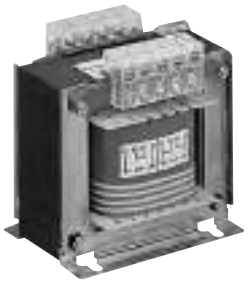
NBR IEC:
Zones 1 and 2
Ex e II Gb

Applications

- Equipment transformers are useful where the available voltage must be changed to accommodate the voltage required by the load and safety voltage.
- Suitable for use in certified increased safety enclosures and OEM increased safety applications.
- Requires primary and secondary protection by fuses or Branch Circuit Breaker.

Features

- Single phase 50/60 Hz.
- Class I.
- Circuit insulation voltage between:
  — 4500 V between windings.
  — 2300 V between primary winding and earth.
  — 1800 V between secondary winding and earth.
- Ex e Terminals capacity 4 mm^2 (0.006 in^2).



400 VA



100 VA

Standard Materials

- Copper windings
- Insulation Class F

ATEX/IEC Certifications and Compliances

- Certification Type TSN/TSCN
- Gas, Zones 1 and 2
- Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
- Symbol of Protection ATEX/IEC: Ex e II
- Service Temperature: -20 °C to +80 °C (-4 °F to +176 °F)
- CE Declaration of Conformity: 5C222
- ATEX Certificate: LCIE 03 ATEX 0021U
- IEC Certificate: LCIE Ex 04.010U
- Ex Standards: EN/IEC 60079-0; 60079-7
- Product Standards: EN 61558-2-4; 61558-2-6

NBR IEC Brazilian Certifications and Compliances

- Certification Type TSN/TSCN
- Gas: Zones 1 and 2
- IEC Marking: Ex de II Gb
- Ambient Temperature: -20 °C to +80 °C (-4 °F to +176 °F)
- Ex Standards: ABNT NBR IEC 60079-0, 60079-7
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 11.0599-U

Catalog Numbering Guide

TRE	100	A	2
Series TRE - ATEX/IEC Certified Transformer NTRE - NBR IEC Certified Transformer	Power: 100 - 100 VA 160 - 160 VA 250 - 250 VA 400 - 400 VA	Primary Voltage: A - 230/400 V B - 240/415 V	Secondary Voltage: 2 - 24/48 V 3 - 2 x 110 V

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A.T.X.® TRE Series Ex e Transformers

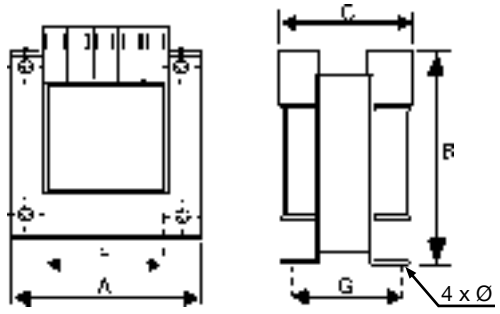
Increased Safety

ATEX/IEC:
Zone 1 and 2
Ⓔx II 2 G

NBR IEC:
Zones 1 and 2
Ex e II Gb

Primary	Secondary	Power	Weight kg (lb)	Volume dm^3 (in^3)	Certified Type	Catalog Number IECEx	Catalog Number NBR IEC
230/400 V	24/48 V	100 VA	2.7 (5.95)	4 (244)	TSN	**TRE100A2**	**NTRE100A2**
		160 VA	4.9 (10.80)	4 (244)	TSN	**TRE160A2**	**NTRE160A2**
		250 VA	5.4 (11.90)	7 (427)	TSN	**TRE250A2**	**NTRE250A2**
		400 VA	6.9 (153.21)	7 (427)	TSN	**TRE400A2**	**NTRE400A2**
	2x110 V	100 VA	2.7 (5.95)	4 (244)	TSCN	**TRE100A3**	**NTRE100A3**
		160 VA	4.9 (10.80)	4 (244)	TSCN	**TRE160A3**	**NTRE160A3**
		250 VA	5.4 (11.90)	7 (427)	TSCN	**TRE250A3**	**NTRE250A3**
		400 VA	6.9 (153.21)	7 (427)	TSCN	**TRE400A3**	**NTRE400A3**
240/415 V	24/48 V	100 VA	2.7 (5.95)	4 (244)	TSN	**TRE100B2**	**NTRE100B2**
		160 VA	4.9 (10.80)	4 (244)	TSN	**TRE160B2**	**NTRE160B2**
		250 VA	5.4 (11.90)	7 (427)	TSN	**TRE250B2**	**NTRE250B2**
		400 VA	6.9 (153.21)	7 (427)	TSN	**TRE400B2**	**NTRE400B2**

Dimensions in Millimeters (Inches)



Power	A	B	C	F	Fixing G	Ø	Weight kg (lb)
100 VA	94 (3.70)	91 (3.58)	91 (3.58)	64 (2.52)	66 (2.60)	4.8 (0.19)	1.8 (3.97)
160 VA	96 (3.78)	102 (4.02)	96 (3.78)	84 (3.31)	78 (3.07)	5.8 (0.23)	3.2 (7.05)
150 VA	108 (4.25)	110 (4.33)	100 (3.94)	84 (3.31)	82 (3.23)	5.8 (0.23)	4.4 (9.70)
400 VA	126 (4.96)	126 (4.96)	115 (4.53)	90 (3.54)	99 (3.90)	6.5 (0.26)	6.0 (13.23)

Overcurrent Protection

		Primary Overcurrent Protection						Secondary Overcurrent Protection					
		Fuses		MCB Curve C	MCB Curve D	MCB Curve C	MCB Curve D	Fuses			MCB Curve C		
Power	Power Loss	230/240 V	400/415 V	230/240 V		400/415 V		24 V	48 V	110 V	24 V	48 V	110 V
100 VA	6 W	1A aM	1A aM	3 A	1 A	2 A	1 A	4 A gG	2 A gG	1 A gG	4 A	2 A	1 A
160 VA	10 W	2A aM	1A aM	6 A	2 A	2 A	1 A	8 A gG	4 A gG	1 A gG	6 A	4 A	2 A
250 VA	15 W	2A aM	2A aM	6 A	3 A	3 A	2 A	10 A gG	6 A gG	2 A gG	10 A	6 A	2 A
400 VA	25 W	4A aM	2A aM	10 A	6 A	6 A	2 A	16 A gG	8 A gG	4 A gG	16 A	4 A	4 A

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ENCLOSURES AND JUNCTION BOXES

When one spark makes the difference between a normal day and a big problem, Nutsteel enclosures are an absolute necessity. Designed to fully contain and confine an explosive force within the enclosure, they are strong enough to withstand the effects of corrosion and time.







ENCLOSURES AND JUNCTION BOXES

Enclosures and Junction Boxes

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
NBR IEC Zone Rated Hazardous Location Outlet Boxes					
Nutsteel NECL3 Conduit Outlet Box	226				X
Nutsteel NECL325 Conduit Outlet Box with Window	229				X
Nutsteel NEJC Junction Box	230				X
ATEX/IECEx/NBR IEC Increased Safety Ex e Zone 1 Rated Junction Boxes					
ATX JBEL Series Polycarbonite Junction Boxes	232			X	X
NJBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes	235			X	X
NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Instrumentation Applications	246			X	X
NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Electrical and Power Applications	253			X	X
ATX JBES Series Pre–Drilled 316L Stainless Steel Junction Boxes	280			X	X
ATX JBES and ECES Series 316L Stainless Steel Enclosures	284			X	X
Nutsteel NAJQ Junction Box	295				X
Nutsteel NACAJ Junction Box	300				X
ATEX/IECEx/NBR IEC Flameproof Ex d Zone 1 Rated Junction Boxes					
ATX ECDX Series Customized Welded Steel/Stainless Steel Enclosures	302			X	X
Nutsteel NECM1 Junction Box	306				X
Nutsteel NECM2 Series Customized Enclosures	312				X
Nutsteel NEJQ Junction Box	317				X
NBR IEC Weatherproof Junction and Outlet Boxes					
Nutsteel NTJC Junction Box	321				X
Nutsteel NTCL2 Small Round Conduit Outlet Box	322				X
Nutsteel NTCM1 Junction Box	326				X
Nutsteel NTCM2 Junction Box	331				X
Nutsteel NTCM3 Pull Box with Drain/Breather	334				X
Nutsteel NTCM4 Floor Box	336				X
Nutsteel NTJQ Junction Box	339				X


NECL3/NECL325


NEJC


JBEL


NJBEP Undrilled


NJBEP Instrumentation


NJBEP Electrical/Power


JBES


JBES/ECES


NAJQ


NACAJ


ECDX


NECM1


NECM2


NEJQ


NTJC


NTCL2


NTCM1


NTCM2


NTCM3


NTCM4


NTJQ

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Nutsteel® NECL3 Conduit Outlet Box

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex tb IIIC Db
IP66

Applications

- Corrosion-resistant: ideal indoors or outdoors.
- For pulling of wires.
- Used for connecting and/or changing the direction of lengths of conduit runs.
- Provides access for maintenance and electrical wiring inspection.
- Ideal for use where there is a risk of explosion in industries such as:
  - — Chemical plants
  - — Petrochemical plants
  - — Paint and varnish facilities
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint spray booths
  - — Flammable product storage facilities

Features

- Cover threads onto the body.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- Entry and exit of electrical conductors must be done with heavy conduit or IP66 explosionproof cable glands.
- O-Rings standard to provide raintight fit.
- General purpose wiring.
- NPT and BSP threads: Ø 1/2” to Ø 2”. Metric threads: M20 to M63.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws: AISI 304 stainless steel
- O-Ring: nitrile

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

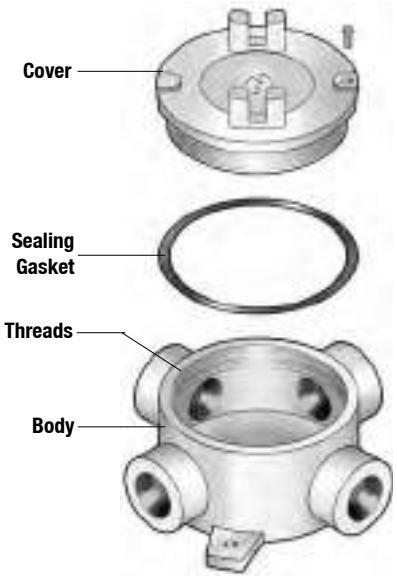
- For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NECL310C01**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NECL310C01**M**.

NBR IEC Brazilian Certifications and Compliances

- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0312U
- Ingress Protection (solid and liquid): IP66



Illustrated Features

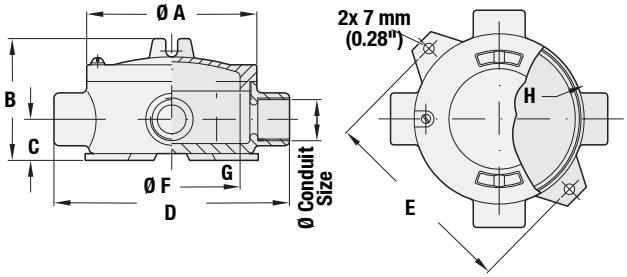


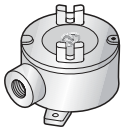
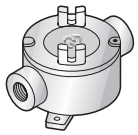
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Nutsteel® NECL3 Conduit Outlet Box

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex tb IIIC Db
IP66



	Conduit Size	Dimensions mm (in) A	B	C	D	E	F	G	H	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
 Type E	1/2"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.7 (1.54)	0.79 (48.2)	**NECL310E01N**
	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.71 (1.56)	0.79 (48.2)	**NECL310E02N**
	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.21 (2.66)	1.58 (96.4)	**NECL320E02N**
	1"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.19 (2.62)	1.58 (96.4)	**NECL320E03N**
	1"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.10 (4.62)	2.78 (169.6)	**NECL330E03N**
	1-1/4"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.08 (4.58)	2.78 (169.6)	**NECL330E04N**
	1-1/4"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.40 (5.28)	3.51 (214.2)	**NECL340E04N**
	1-1/2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.37 (5.21)	3.51 (214.2)	**NECL340E05N**
	2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.19 (4.82)	3.51 (214.2)	**NECL340E06N**
 Type C	1/2"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.74 (1.63)	0.93 (56.8)	**NECL310C01N**
	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.74 (1.63)	0.93 (56.8)	**NECL310C02N**
	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.24 (2.73)	1.81 (110.5)	**NECL320C02N**
	1"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.23 (2.71)	1.81 (110.5)	**NECL320C03N**
	1"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.06 (4.53)	3.05 (186.1)	**NECL330C03N**
	1-1/4"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.02 (4.44)	3.05 (186.1)	**NECL330C04N**
	1-1/4"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.50 (5.50)	4.09 (249.6)	**NECL340C04N**
	1-1/2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.47 (5.43)	4.09 (249.6)	**NECL340C05N**
	2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.38 (5.24)	4.09 (249.6)	**NECL340C06N**

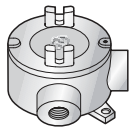
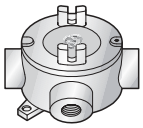
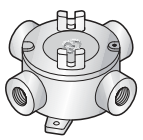
① *For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NECL310C01**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NECL310C01**M**.*

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Nutsteel® NECL3 Conduit Outlet Box

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex tb IIIC Db
IP66

	Conduit Size	Dimensions mm (in) A	B	C	D	E	F	G	H	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
 Type L	1/2"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.73 (1.61)	0.96 (58.6)	**NECL310L01N**
	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.72 (1.58)	0.96 (58.6)	**NECL310L02N**
	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.24 (2.73)	1.84 (112.3)	**NECL320L02N**
	1"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.23 (2.71)	1.84 (112.3)	**NECL320L03N**
	1"	150 (5.91)	100 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.06 (4.53)	3.08 (188.0)	**NECL330L03N**
	1-1/4"	150 (5.91)	100 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.03 (4.47)	3.08 (188.0)	**NECL330L04N**
	1-1/4"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.49 (5.48)	4.21 (256.9)	**NECL340L04N**
	1-1/2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.45 (5.39)	4.21 (256.9)	**NECL340L05N**
	2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.38 (5.24)	4.21 (256.9)	**NECL340L06N**
 Type T	1/2"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.78 (1.72)	1.14 (69.6)	**NECL310T01N**
	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.77 (1.69)	1.14 (69.6)	**NECL310T02N**
	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.29 (2.84)	2.11 (128.8)	**NECL320T02N**
	1"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.27 (2.79)	2.11 (128.8)	**NECL320T03N**
	1"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.2 (4.84)	3.38 (206.3)	**NECL330T03N**
	1-1/4"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.18 (4.80)	3.38 (206.3)	**NECL330T04N**
	1-1/4"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.61 (5.74)	4.91 (299.6)	**NECL340T04N**
	1-1/2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.58 (5.68)	4.91 (299.6)	**NECL340T05N**
	2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.43 (5.35)	4.91 (299.6)	**NECL340T06N**
 Type X	1/2"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.82 (1.80)	1.35 (1.35)	**NECL310X01N**
	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	62 (2.44)	30 (1.18)	71 (2.80)	0.79 (1.74)	1.35 (1.35)	**NECL310X02N**
	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.33 (2.93)	2.41 (147.1)	**NECL320X02N**
	1"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	81 (3.19)	33 (1.30)	100 (3.94)	1.32 (2.90)	2.41 (147.1)	**NECL320X03N**
	1"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.24 (4.93)	3.71 (226.4)	**NECL330X03N**
	1-1/4"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	105 (4.13)	47 (1.85)	130 (5.12)	2.21 (4.86)	3.71 (226.4)	**NECL330X04N**
	1-1/4"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.64 (5.81)	5.73 (349.7)	**NECL340X04N**
	1-1/2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.62 (5.76)	5.73 (349.7)	**NECL340X05N**
	2"	150 (5.91)	130 (5.12)	50 (1.97)	210 (8.27)	175 (6.89)	105 (4.13)	67 (2.64)	130 (5.12)	2.51 (5.52)	5.73 (349.7)	**NECL340X06N**

① *For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NECL310C01**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NECL310C01**M**.*

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NECL325 Conduit Outlet Box with Window Cover

Explosionproof. Raintight

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex tb IIIC Db
IP66

Applications

- Ideal for use with instrumentation.
- Corrosion-resistant: ideal indoors or outdoors.
- For pulling of wires.
- Used for connecting and/or changing the direction of lengths of conduit runs.
- Provides access for maintenance and electrical wiring inspection.
- Ideal for use where there is a risk of explosion in industries such as:
  - — Chemical plants
  - — Petrochemical plants
  - — Paint and varnish facilities
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint spray booths
  - — Flammable product storage facilities

Features

- Cover threads onto the body.
- Complete with round, explosionproof glass window cover fixed to the cover with an O-Ring.
- O-Rings standard to provide raintight fit.
- Entry and exit of electrical conductors must be done with heavy conduit or IP66 explosionproof cable glands.
- Screw cover allows cooling in the event of an explosion.
- Upon request: certification needed.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- NPT and BSP threads: Ø 1/2” to Ø 3/4”. Metric threads: M20 to M25.

Standard Materials

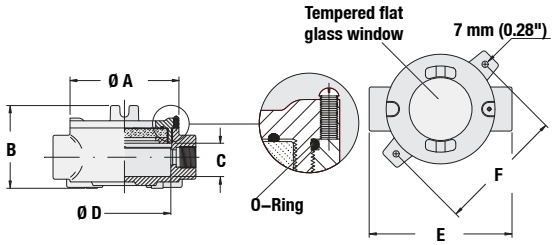
- Body and cover: copperfree, diecast, aluminum alloy
- Cover window: round, tempered flat glass
- O-Ring: nitrile
- Screws: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure



Dimensions mm (in)



Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NECL325X01**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NECL325X01**M**.

NBR IEC Brazilian Certifications and Compliances

- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0312U
- Ingress Protection (solid and liquid): IP66

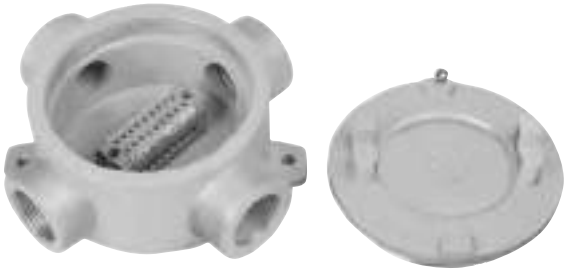
		Conduit Size	Dimensions mm (in) A	B	C	D	E	F	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
Type E		1/2”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.26 (2.77)	1.52 (92.8)	**NECL325E01N**
		3/4”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.25 (2.75)	1.52 (92.8)	**NECL325E02N**
Type C		1/2”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.30 (2.86)	1.73 (105.6)	**NECL325C01N**
		3/4”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.29 (2.84)	1.73 (105.6)	**NECL325C02N**
Type L		1/2”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.30 (2.86)	1.76 (107.4)	**NECL325L01N**
		3/4”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.29 (2.84)	1.76 (107.4)	**NECL325L02N**
Type T		1/2”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.34 (2.95)	2.01 (122.7)	**NECL325T01N**
		3/4”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.33 (2.93)	2.01 (122.7)	**NECL325T02N**
Type X		1/2”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.39 (3.06)	2.3 (140.4)	**NECL325X01N**
		3/4”	121 (476)	90 (3.54)	37 (1.46)	100 (3.94)	160 (6.30)	141 (5.55)	1.38 (3.04)	2.3 (140.4)	**NECL325X02N**

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Nutsteel® NEJC Junction Box

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex tb IIIC Db
IP66



Applications

- Corrosion-resistant: ideal indoors or outdoors.
- Junction or pull box for pulling and splicing of wires and as an enclosure for eletrical devices.
- Ideal for use where there is a risk of explosion in industries such as:
  - — Chemical plants
  - — Petrochemical plants
  - — Paint and varnish facilities
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint spray booths
  - — Flammable product storage facilities

Features

- Assembled with terminal block.
- One-pole terminal block, for cables 0.5 thru 2.5 mm^2 (0.0007 thru 0.0155 in^2) – 24 A/400 Vac.
- Entry and exit of electrical conductors must be done with heavy conduit or IP66 explosionproof cable glands.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- NPT and BSP threads: Ø 3/4" to Ø 1-1/4". Metric threads: M25 to M40.

Standard Materials

- Body and cover: copperfree diecast aluminum
- Terminal: polyamide
- Screws: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 13th position; example: NEJC10E20205**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 13th position; example: NEJC10E20205**M**.

NBR IEC Brazilian Certifications and Compliances

- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)
- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.0813
- Ingress Protection (solid and liquid): IP66
- T Rating: T6

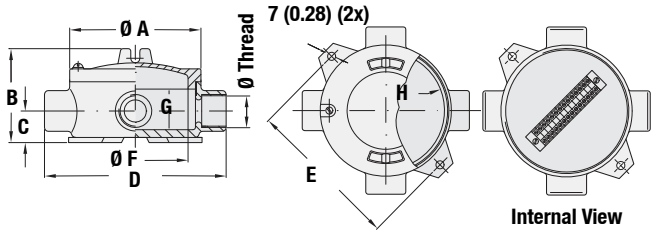
Junction Box	Nominal Section mm^2 (in^2)	Max. Quantity of Terminal–Blocks
NEJC10	2.5 (0.0039)	4
	4.0 (0.0062)	3
	6.0 (0.0093)	2
NEJC20	2.5 (0.0039)	8
	4.0 (0.0062)	7
	6.0 (0.0093)	5
NEJC30	2.5 (0.0039)	14
	4.0 (0.0062)	12
	6.0 (0.0093)	8
NEJC40	2.5 (0.0039)	14
	4.0 (0.0062)	12
	6.0 (0.0093)	8

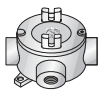
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Nutsteel® NEJC Junction Box

Explosionproof

NBR IEC:
Zone 1 and 2
Ex d IIC Gb
Ex tb IIIC Db
IP66



	1–Pole Terminal Range Quantity	mm² (in²)	Ø Thread	Dimensions mm (in) A	B	C	D	E	F	G	H	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
 Type E	5	0.0008 - 0.004 (0.5 - 2.5)	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	110 (4.33)	30 (1.18)	71 (2.80)	71 (156.2)	0.79 (48.2)	**NEJC10E20205N**
	9	0.0008 - 0.004 (0.5 - 2.5)	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	142 (5.59)	33 (1.30)	100 (3.94)	100 (220.0)	1.58 (96.4)	**NEJC20E20209N**
	14	0.0008 - 0.004 (0.5 - 2.5)	1-1/4"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	175 (6.89)	47 (1.85)	130 (5.12)	130 (286.0)	2.78 (169.6)	**NEJC30E40214N**
 Type C	5	0.0008 - 0.004 (0.5 - 2.5)	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	110 (4.33)	30 (1.18)	71 (2.80)	71 (156.2)	0.93 (56.8)	**NEJC10C20205N**
	9	0.0008 - 0.004 (0.5 - 2.5)	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	142 (5.59)	33 (1.30)	100 (3.94)	100 (220.0)	1.81 (110.5)	**NEJC20C20209N**
	14	0.0008 - 0.004 (0.5 - 2.5)	1-1/4"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	175 (6.89)	47 (1.85)	130 (5.12)	130 (286.0)	3.05 (186.1)	**NEJC30C40214N**
 Type L	5	0.0008 - 0.004 (0.5 - 2.5)	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	110 (4.33)	30 (1.18)	71 (2.80)	71 (156.2)	0.96 (58.6)	**NEJC10L20205N**
	9	0.0008 - 0.004 (0.5 - 2.5)	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	142 (5.59)	33 (1.30)	100 (3.94)	100 (220.0)	1.84 (112.3)	**NEJC20L20209N**
	14	0.0008 - 0.004 (0.5 - 2.5)	1-1/4"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	175 (6.89)	47 (1.85)	130 (5.12)	130 (286.0)	3.08 (188.0)	**NEJC30L40214N**
 Type T	5	0.0008 - 0.004 (0.5 - 2.5)	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	110 (4.33)	30 (1.18)	71 (2.80)	71 (156.2)	1.14 (69.6)	**NEJC10T20205N**
	9	0.0008 - 0.004 (0.5 - 2.5)	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	142 (5.59)	33 (1.30)	100 (3.94)	100 (220.0)	2.11 (128.8)	**NEJC20T20209N**
	14	0.0008 - 0.004 (0.5 - 2.5)	1-1/4"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	175 (6.89)	47 (1.85)	130 (5.12)	130 (286.0)	3.38 (206.3)	**NEJC30T40214N**
 Type X	5	0.0008 - 0.004 (0.5 - 2.5)	3/4"	93 (3.66)	78 (3.07)	26 (1.02)	127 (5.00)	110 (4.33)	110 (4.33)	30 (1.18)	71 (2.80)	71 (156.2)	1.35 (82.4)	**NEJC10X20205N**
	9	0.0008 - 0.004 (0.5 - 2.5)	3/4"	122 (4.80)	91 (3.58)	33 (1.30)	163 (6.42)	142 (5.59)	142 (5.59)	33 (1.30)	100 (3.94)	100 (220.0)	2.41 (147.1)	**NEJC20X20209N**
	14	0.0008 - 0.004 (0.5 - 2.5)	1-1/4"	150 (5.91)	110 (4.33)	37 (1.46)	180 (7.09)	175 (6.89)	175 (6.89)	47 (1.85)	130 (5.12)	130 (286.0)	3.71 (226.4)	**NEJC30X40214N**

① *For BSP threads, replace the letter **N** with the letter **B**, in the 13th position; example: NEJC10E20205**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 13th position; example: NEJC10E20205**M**.*

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A.T.X.® JBEL Series Polycarbonate Junction Boxes

Increased Safety

Furnished complete with Terminals.

ATEX/IEC:
Zone 1 e 2 – 21 e 22
Ex II 2 GD
IP66 – IK10

NBR IEC:
Zone 1 e 2 - 21 e 22
Ex e IIC Gb
Ex tb IIIC Db
IP66 - IK10

Applications

- Small terminal junction boxes designed to facilitate electrical connections in hazardous areas.
- Designed for use in Zone 1 or 2 areas, where flammable gases or vapors are present either continuously or intermittently such as:
  - — Petroleum
  - — Chemical
  - — Refineries
  - — Other industrial process facilities
- Ideal for wet or corrosive atmospheres.
- Designed for use in Zone 21 or 22 areas where flammable dusts are present either continuously or intermittently such as:
  - — Food processing
  - — Dairy
  - — Brewing
  - — Other commercial facilities





For Unarmored Cable





For Armored Cable

Features

- Pillar type terminal block for easy connection.
- Available in two sizes:
  - — 4 mm² (0.006 in²)
  - — 10 mm² (0.016 in²)
- Unarmored or armored versions with earth continuity brass device.
- Operating temperature: -40 °C to +55 °C (-40 °F to +131 °F).

Standard Materials

- Enclosure: static and impact resistant polycarbonate
- Cover gasket: polyurethane
- Hardware: stainless steel

ATEX/IEC Certifications and Compliances

- Certification Type: BJe1
  - — Gas, Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 G
    - – ATEX/IEC Protection: Ex e II
    - – T Rating: T6
  - — Dust, Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ex II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T75 °C
  - — CE Declaration of Conformity: 50226
  - — ATEX Certificate: LCIE 02 ATEX 6069
  - — IECEx Certificate: LCIE Ex 02.008
- Certification Type: BJe2
  - — Gas, Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 G
    - – ATEX/IEC Protection: Ex e II
    - – T Rating: T6
  - — Dust, Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ex II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T80 °C
  - — CE Declaration of Conformity: 50209
  - — ATEX Certificate: LCIE 99 ATEX 6003
  - — IEC Certificate: LCIE Ex 99.005
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- Other Certifications: GOST
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Ex Standards: EN/IEC 60079-0; 60079-7; 61241-0, 61241-1
- Other Standards: EN/IEC 60529 (IP), 62262 , 50102 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: BJe1
  - — Gas, Zones 1 and 2
    - – IEC Marking: Ex e II Gb
    - – T Rating: T6
  - — Dust, Zones 21 and 22
    - – IEC Marking: Ex tb IIIC Db
    - – Surface Temperature: + 85 °C
  - — INMETRO Certificate: BVC 11.0479
- Certification Type: BJe2
  - — Gas, Zones 1 and 2
    - – IEC Markings: Ex e II Gb
    - – T Rating: T6
  - — Dust, Zones 21 and 22
    - – IEC Markings: Ex tb IIIC Db
    - – Surface Temperature: T85 °C
  - — INMETRO Certificate: BVC 11.0402-X
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- INMETRO Ordinance: 179
- Ex Standards: ABNT NBR IEC 60079-0, 60079-7, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- Cable glands for use with armored and unarmored cable are available, see *Fittings: Cable Glands*.

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A.T.X.® JBEL Series Polycarbonate Junction Boxes

Increased Safety

Furnished complete with Terminals.

ATEX/IEC:
Zone 1 e 2 – 21 e 22
Ⓔx II 2 GD
IP66 – IK10

NBR IEC:
Zone 1 e 2 - 21 e 22
Ex e IIC Gb
Ex tb IIIC Db
IP66 - IK10

Equipment	Rating (Amps)	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IEC	Catalog Number NBR IEC
For Unarmored Cables 2.5/4 mm² (0.004/0.006 in²) 660 V — Certification Type BJe1 *Supplied with 4 connection terminals. Maximum capacity per terminal: 4 x 2.5 mm² (0.004 in²) or 2 x 4 mm² (0.004 in²) + 2 x 2.5 mm² (0.004 in²) and 4 interconnected earth terminals. Maximum capacity per earth terminal: 1 x 4 mm² (0.004 in²)*					
 4 x PG16 entries with knock-out caps ① 4 x Integrated cable glands for unarmored cable; 8 to 16 mm (0.31" to 0.69") diameter *Important: Cables must be secured to structure close to box entries*	28 A/2.5 mm² (0.004 in²) 38 A/4 mm² (0.006 in²)	0.4 (0.88)	1.7 (103.74)	**JBEL1N4P16G**	**NJBEL1N4P16G**
For Armored Cables 2.5/4 mm² (0.004/0.006 in²) 660 V — Certification Type BJe1 *Supplied with 4 connection terminals. Maximum capacity per terminal: 4 x 2.5 mm² (0.004 in²) or 2 x 4 mm² (0.004 in²) + 2 x 2.5 mm² (0.004 in²) and 4 interconnected earth terminals. Maximum capacity per earth terminal: 1 x 4 mm² (0.004 in²)*					
 4 x M20 entries with earth brass continuity device 2 x blanking plugs	28 A/2.5 mm² (0.004 in²) 38 A/4 mm² (0.006 in²)	0.4 (0.88)	1.7 (103.74)	**JBEL1A4M20**	**NJBEL1A4M20**
For Unarmored Cables 6/10 mm² (0.009/0.016 in²) 690 V — Certification Type BJe2 *Supplied with 4 connection terminals. Maximum capacity per terminal: 4 x 6 mm² (0.009 in²) or 3 x 10 mm² (0.016 in²) + 4 mm² (0.004 in²) and 4 interconnected earth terminals. Maximum capacity per earth terminal: 1 x 10 mm² (0.016 in²)*					
3 x M20 entries 3 x cable glands for unarmored cable; 6.5 to 14.5 mm (0.26" to 0.57") diameter		0.7 (1.54)	4.5 (274.60)	**JBEL2N3M20G**	**NJBEL2N3M20G**
 4 x M20 entries 4 x cable glands for unarmored cable; 6.5 to 14.5 mm (0.26" to 0.57") diameter	42 A/10 mm² (0.016 in²) 30 A/6 mm² (0.009 in²)	0.7 (1.54)	4.5 (274.60)	**JBEL2N4M20G**	**NJBEL2N4M20G**
3 x M25 entries 3 x cable glands for unarmored cable; 8 to 18.5 mm (0.31" to 0.73") diameter	18 A/4 mm² (0.006 in²)	0.7 (1.54)	4.5 (274.60)	**JBEL2N3M25G**	**NJBEL2N3M25G**
4 x M25 entries 4 x cable glands for unarmored cable; 8 to 18.5 mm (0.31" to 0.73") diameter		0.7 (1.54)	4.5 (274.60)	**JBEL2N4M25G**	**NJBEL2N4M25G**
For Armored Cables 6/10 mm² (0.009/0.016 in²) 690 V — Certification Type BJe2 *Supplied with 4 connection terminals. Maximum capacity per terminal: 4 x 6 mm² (0.009 in²) or 3 x 10 mm² (0.016 in²) + 4 mm² (0.004 in²) and 4 interconnected earth terminals. Maximum capacity per earth terminal: 1 x 10 mm² (0.016 in²)*					
4 x M20 entries with earth brass continuity device. 2 x M20 blanking plugs		0.7 (1.54)	4.5 (274.60)	**JBEL2A4M20**	**NJBEL2A4M20**
 4 x M25 entries with earth brass continuity device. 2 x M25 blanking plugs	42 A/10 mm² (0.016 in²) 30 A/6 mm² (0.009 in²)	0.7 (1.54)	4.5 (274.60)	**JBEL2A4M25**	**NJBEL2A4M25**
2 x M25 + 2 x M20 entries with earth brass continuity device. 1 x M25 + 1 x M20 blanking plugs	18 A/4 mm² (0.006 in²)	0.7 (1.54)	4.5 (274.60)	**JBEL2A4M05**	**NJBEL2A4M05**
3 x M25 + 1 x M20 entries with earth brass continuity device. 1 x M25 + 1 x M20 blanking plugs		0.7 (1.54)	4.5 (274.60)	**JBEL2A4M06**	**NJBEL2A4M06**

① *Knock-out caps can be used as plugs.*

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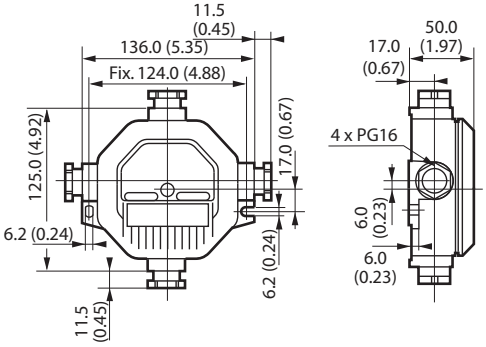
A.T.X.® JBEL Series Polycarbonate Junction Boxes

Increased Safety

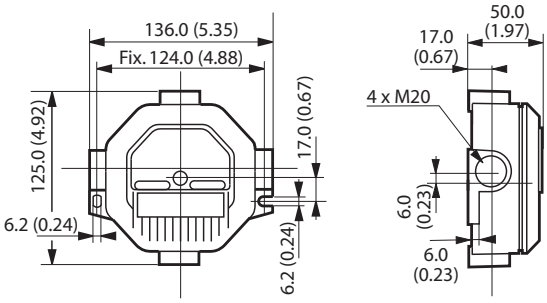
Furnished complete with Terminals.

Dimensions in Millimeters (Inches)

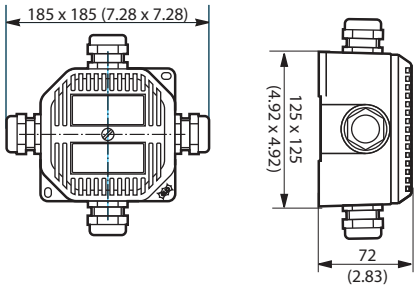
BJe1 with Cable Glands for Unarmored Cables



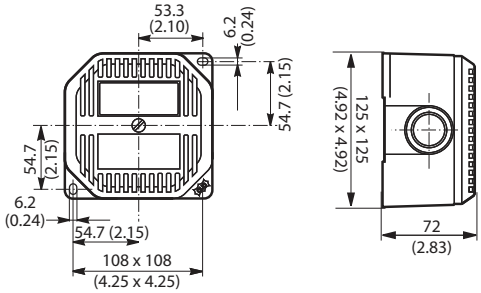
BJe1 without Cable Glands for Armored Cables



BJe2 with Cable Glands for Unarmored Cables



BJe2 without Cable Glands for Armored Cables



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A.T.X.® NJBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes

Increased Safety. For Customization

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Applications

- Designed for Zones 1 or 2 areas, where flammable gases or vapors are present either continuously, often or accidentally such as:
  — Petroleum
  — Chemical
  — Refineries
  — Other industrial process facilities
- Ideal for indoor/outdoor use with wet or corrosive atmospheres.
- Designed for use in Zones 21 or 22 areas where flammables dusts (conductive and non conductive) are present either continuously, often or accidentally such as:
  — Food processing
  — Dairy
  — Brewing
  — Other industrial process facilities
- Designed for Zone 0 and Zone 20 Intrinsically Safe applications when used with rated terminals.

Features

- Available in a wide range of sizes:
  — For armored, unarmored or armored lead sheathed cable
  — For use with Mantle Clamping (Pillar Terminals) for use as instrumentation, electrical or power terminals
  — For use with a variety of connection and earth terminals
- Optional external hinged enclosures:
  — Reversible door opening 120°.
  — Door with double bar lock.
  — Key locking facility.
- Refer to the technical guide to determine permitted and sizes of terminals and cables entries for self arrangement.

Standard materials

- Enclosures: Static resistant carbon filled fiberglass reinforced polyester (FRP)
- Hardware: stainless steel
- Gasket for sizes 85 x 85, 120 x 120: silicone
- Gasket for other sizes: EPDM (ethylene propylene diene monomer rubber)

Options

- External hinges are available on the following sizes:
  — 500 x 320 x 150
  — 500 x 320 x 230
  — 750 x 320 x 150
  — 750 x 320 x 230
- Silicone gasket available for sizes 170 x 170 and 200 x 215
- Removable glands plates
- Nameplates
- Mounting pan
- Terminal rail
- Inside pocket for document
- Consult factory for custom drilling and assembly requirements.



NBR IEC Brazilian Certifications and Compliances ①

- Type: JBEP
  — Gas, Zones 1 and 2:
  - IEC Marking: Ex e IIC Gb, Ex e [ia Ga] IIC Gb, Ex ei IIC Gb, Ex emb [ia Ga] IIC Gb, Ex de IIC Gb, Ex de IIB+H_2 Gb, Ex ia IIC T6 Ga
  - T Rating: T4 to T6
  — Dust, Zones 21 and 22:
  - IEC Marking: Ex tb IIIC Db
  — Ambient Temperature: -55 °C to +90 °C (according to the components assembled inside the enclosure)
  — INMETRO Certificate: BVC 13.3238-X
  — INMETRO Ordinance: 179
  — Ingress Protection (solid and liquid): IP66
  — Impact Resistance (shock): IK10
  — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-31
  — Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- NEC/CEC (Class I, Zone 1, AEx e IIC, T5 or T6; Ex e IIC, T5 or T6; IP66), ATEX/IECEx (Zones 1 and 2 – 21 and 22; Ⓔx II 2 GD; IP66 – IK10) Certified JBEP Series undrilled and predrilled, empty fiberglass reinforced polyester junction boxes are available for field drilling and customization. Contact your local sales representative for more information.
- Cable glands for use with armored and unarmored cable are available, see *Fittings: Cable Glands*.

① For NBR IEC governed locations junction boxes cannot be field drilled; field drilling a product nulls both the product's certifications and the warranty.

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A.T.X.® NJBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes

Increased Safety. For Customization

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Catalog Numbering Guide - NJBEP Undrilled and Predrilled, Empty Junction Boxes

NJBE	P	08	08	06	0	G
Series: NJBE - NBR IEC Certified Junction Box ①	Material: P - Polyester	Dimensions Height mm (in): 08 - 85 (3.35) 12 - 120 (4.72) 17 - 170 (6.69) 21 - 215 (8,46) 23 - 230 (9.05) 25 - 250 (9.84) 50 - 500 (19.69) 75 - 750 (29.53)	Dimensions Width mm (in): 08 - 85 (3.35) 12 - 120 (4.72) 17 - 170 (6.69) 20 - 200 (7.87) 32 - 320 (12.60)	Dimensions Depth mm (in): 06 - 61 (2.40) 07 - 66 (2.60) 09 - 91 (3.58) 09S - 91 (3.58) 11 - 116 (4.57) 15 - 150 (5.91) 23 - 230 (9.06)	Gland Plates *(for location see chart below):* 0 - No Gland Plate 1 - Bottom, Plastic 2 - Top and Bottom, Plastic 3 - Bottom and Sides, Plastic 4 - All Sides Plastic, 5 - Bottom, Brass 6 - Top and Bottom, Brass 7 - Bottom and Sides, Brass 8 - All Sides, Brass	Options: *(Options must be listed alphabetically)* A - Earth continuity Brass Plate G - Cable Glands M - Mounting Pan H - Hinges for sizes 500 or 750 x 320 x 150 or 230 mm (19.69” or 29.53” x 9.06” x 5.91” or 9.06”) HR - Horizontal DIN-Rail VR - Vertical DIN-Rail # - Customized at Factory

① For NBR IEC governed locations junction boxes cannot be field drilled; field drilling a product nulls both the product’s certifications and the warranty.

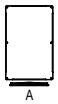
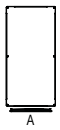
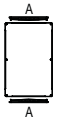
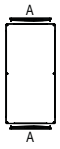
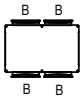
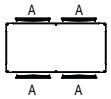
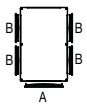
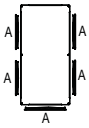
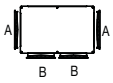
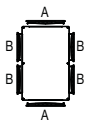
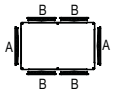
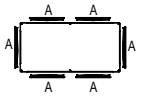
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A.T.X.® NJBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes

Increased Safety. For Customization

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Gland Plate Location Chart ①

	Height x Width x Depth Dimensions in Millimeters (Inches)				
	250 x 320 x 150 (9.84 x 12.60 x 5.91)	500 x 320 x 150 or 230 (19.69 x 12.60 x 5.91 or 12.60)	750 x 320 x 150 or 230 (29.53 x 12.60 x 5.91 or 12.60)	320 x 500 x 150 or 230 (12.60 x 19.69 x 5.91 or 12.60)	320 x 750 x 150 or 230 (12.60 x 29.53 x 5.91 or 12.60)
Bottom					
Top and Bottom					
Bottom and Sides	N/A				
All Sides	N/A				

Spare Removable Gland Plate — Supplied with Gasket and Hardware

	Description	Size	Weight – kg (lb)	Volume – dm^3 (in^3)	Size – mm (in)	Catalog Number
	Plastic	A	0.56 (1.24)	0.8 (48.8)	127 X 268 (5.00 X 10.55)	**NJBEPGPPA**
	Plastic	B	0.51 (1.13)	0.6 (37.0)	127 X 203 (5.00 X 8.00)	**NJBEPGPPB**
	Brass	A	1.5 (3.3)	0.8 (48.8)	127 X 268 (5.00 X 10.55)	**NJBEPGPBA**
	Brass	B	1.30 (2.87)	0.6 (37.0)	127 X 203 (5.00 X 8.00)	**NJBEPGPBB**

① *A = 127 x 268 (5" x 10.55").*
B = 127 x 203 (5" x 8").

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A.T.X.® NJBEP Series Undrilled, Empty Fiberglass Reinforced Polyester Junction Boxes

Increased Safety. For Customization

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Ex eb IIC Polyester Enclosures

For use with Ex certified terminals only (not supplied). DIN-Rail not supplied.
For DIN Rail dimensions, see DIN Rail Sizes chart on following page.

	Dimension – H x W x D – mm (in)	Enclosure Weight – kg (lb)	Enclosure Volume – dm^3 (in^3)	Shipping Carton Volume – dm^3 (in^3)	Catalog Number ①
	85 x 85 x 61 (3.35 x 3.35 x 2.40)	0.38 (0.84)	0.43 (26.45)	1.35 (82.38)	**NJBEP0808060** ②
	120 x 120 x 91 (4.75 x 4.75 x 3.58)	0.75 (1.65)	1.31 (79.97)	1.98 (121.10)	**NJBEP121209S0**
	170 x 170 x 91 (6.69 x 6.69 x 3.58)	1.32 (2.91)	2.63 (160.49)	4.04 (246.56)	**NJBEP171709S0**
	200 x 215 x 91 (7.87 x 8.47 x 3.74)	2.06 (4.54)	4.09 (249.28)	9.54 (582.17)	**NJBEP2021090**
	200 x 215 x 150 (7.87 x 8.47 x 5.91)	2.67 (5.89)	6.45 (393.60)	9.54 (582.17)	**NJBEP2021150**
	250 x 320 x 150 (9.84 x 12.60 x 5.91)	3.90 (8.60)	12.00 (732.28)	19.35 (1181.01)	**NJBEP2532150**
	500 x 320 x 150 (19.69 x 12.60 x 5.91)	6.39 (14.09)	24.00 (1464.57)	71.63 (4371.33)	**NJBEP5032150**
	750 x 320 x 150 (29.53 x 12.60 x 5.91)	8.69 (19.16)	36.00 (2196.85)	46.41 (2831.84)	**NJBEP7532150**
	320 x 250 x 150 (12.60 x 9.84 x 5.91)	3.90 (8.60)	12.00 (732.28)	19.35 (1181.01)	**NJBEP3225150**
	320 x 500 x 150 (12.60 x 19.69 x 5.91)	6.39 (14.09)	24.00 (1464.57)	71.63 (4371.33)	**NJBEP3250150**
	320 x 750 x 150 (12.60 x 29.53 x 5.91)	8.69 (19.16)	36.00 (2196.85)	46.41 (2831.84)	**NJBEP3275150**
	500 x 320 x 230 (19.69 x 12.60 x 9.06)	8.02 (17.68)	36.80 (2245.67)	71.63 (4371.33)	**NJBEP5032230**
	750 x 320 x 230 (29.53 x 12.60 x 9.06)	11.54 (25.44)	55.20 (3368.51)	82.13 (5011.76)	**NJBEP7532230**
	320 x 500 x 230 (12.60 x 19.69 x 9.06)	8.02 (17.68)	36.80 (2245.67)	71.63 (4371.33)	**NJBEP3250230**
	320 x 750 x 230 (12.60 x 29.53 x 9.06)	11.54 (25.44)	55.20 (3368.51)	82.13 (5011.76)	**NJBEP3275230**

*① To order enclosure fitted with removable gland plate as standard, replace last digit of the catalog number **0** with 1 to 8; example: JBEP3275238.*
② Due to the small size of the NJBEP0808060, the optional Laminated Plastic Nameplate for Engraving is not recommended for this enclosure. The 85 x 85 x 60 mm (3.35 x 3.35 x 2.36 in) dimensions do not allow for mounting space beyond the factory adhered product label.

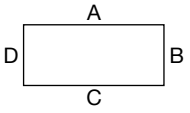
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A.T.X.® NJBEP Series Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes

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NBR IEC:
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IP66 - IK10

Ex eb IIC Factory Drilled JBEP Polyester Junction Boxes Equipped with One horizontal Symmetrical Zinc Plated Rail, Yellow Laminated Plastic Label with Black Lettering, Internal earth terminal, and Earth Continuity Device.
For use with Ex terminals only (not supplied).
Cable glands and plugs ordered separately.



	Enclosure Type	Rail Length Capacity (mm)	Clearance Holes Per Side A	B	C	D	Weight kg (lb)	Volume dm^3 (in^3)	Dimensions H x W x D – mm (in)	Catalog Number
	NJBEP080806	41	—	1 x M20	1 x M20	1 x M20	0.42 (0.93)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**NJBEP080806003** ①
	NJBEP080806	41	1 x M20	1 x M20	1 x M20	1 x M20	0.42 (0.93)	0.44 (26.9)	85 x 85 x 60 (3.35 x 3.35 x 2.36)	**NJBEP080806004** ①
	NJBEP121209S0	73	—	1 x M20	1 x M20	1 x M20	0.85 (1.87)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209003**
	NJBEP121209S0	73	1 x M20	1 x M20	1 x M20	1 x M20	0.85 (1.87)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209004**
	NJBEP171709S0	122	1 x M20	1 x M20	1 x M20	1 x M20	1.54 (3.40)	2.65 (162.0)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709004**
	NJBEP171709S0	122	—	2 x M20	2 x M20	2 x M20	1.54 (3.40)	2.65 (162.0)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709006**
	NJBEP171709S0	122	1 x M25	1 x M25	1 x M25	1 x M25	1.54 (3.40)	2.65 (162.0)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709014**
	NJBEP171709S0	122	—	2 x M25	2 x M25	2 x M25	1.54 (3.40)	2.65 (162.0)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709016**

① *Due to the size of NJBEP0808060, optional Laminated Plastic Nameplate for Engraving is not recommended for this enclosure. The 85 x 85 x 60 mm (3.35 x 3.35 x 2.36 in) dimensions do not allow for mounting space beyond the factory adhered product label.*

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A.T.X.® NJBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes Horizontal Din Rail

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Ex e IIC Gb
IP66 - IK10

Rail size for NJBEP080806 15 x 5.5 mm. All other rail sizes are 35 x 15 mm or 35 x 7.5 mm.
NBR IEC 60079-7: Ex e terminal blocks are suggested for all sizes.





Enclosure Catalog Number		Horizontal Terminal Rail Overall Length	L	Max. Qty	Number of Terminals of the same pitch per rail — Nominal cross section (mm²)/pitch (mm) 2.5 / 5.1	4 / 6.1	6 / 7.9	10 / 9.9	16 / 11.9	35 / 16	50 / 18.5	70 / 20.5	95/120 / 27	Earthing Bar
NJBEP0808060	—	70	41	1	6	4	4	0	0	0	0	0	0	N/A
NJBEP121209S0	—	94	73	1	14	12	0	0	0	0	0	0	0	N/A
NJBEP1717090	—	150	122	1	24	20	15	12	9	0	0	0	0	90
NJBEP2021090	—	190	165	1	32	27	20	16	13	9	0	0	0	195
NJBEP2021150	—	199	165	1	32	27	20	16	13	9	0	0	0	155
NJBEP2532150	=	296	245	2	96	80	34	27	22	16	0	0	0	230
NJBEP3225150	=	223	199	2	78	66	50	40	32	12	10	9	0	160
NJBEP3250150	=	476	450	2	176	146	114	90	74	27	23	21	0	470
NJBEP3250230	=	476	450	2	176	146	114	90	74	27	23	21	0	470
NJBEP3275150	=	728	700	2	274	228	176	140	116	43	37	33	0	720
NJBEP3275230	=	728	700	2	274	228	176	140	116	43	37	33	0	720
NJBEP5032150	≡	296	270	4	198	168	100	79	64	32	14	12	9	230
NJBEP5032230	≡	296	270	4	198	168	100	79	64	32	14	12	9	230
NJBEP7532150	≡	296	270	6	318	264	168	133	88	46	28	24	9	230
NJBEP7532230	≡	296	270	6	318	264	168	133	88	46	28	24	9	230

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A.T.X.® NJBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes Vertical Din Rail

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NBR IEC:
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Ex e IIC Gb
IP66 - IK10

Rail size for NJBEP080806 15 x 5.5 mm. All other rail sizes are 35 x 15 mm or 35 x 7.5 mm.
NBR IEC 60079-7: Ex e terminal blocks are suggested for all sizes.





Enclosure Catalog Number		Vertical Terminal Rail Length	L	Max. Qty	Number of Terminals of the same pitch per rail — Nominal cross section (mm²) and pitch (mm) 2.5 / 5.1	4 / 6.1	6 / 7.9	10 / 9.9	16 / 11.9	35 / 16	50 / 18.5	70 / 20.5	95/120 / 27	Earthing Bar
NJBEP0808060		70	41	1	6	4	4	0	0	0	0	0	0	N/A
NJBEP121209S0		94	73	1	14	12	0	0	0	0	0	0	0	N/A
NJBEP1717090		150	122	1	24	20	15	12	9	0	0	0	0	128
NJBEP2021090		178	149	1	29	24	18	15	11	8	0	0	0	155
NJBEP2021150		178	149	1	29	24	18	15	11	8	0	0	0	195
NJBEP2532150		223	199	2	78	66	50	40	32	12	10	9	0	160
NJBEP3225150		296	245	2	96	80	34	27	22	16	0	0	0	230
NJBEP3250150		296	270	4	198	168	100	79	64	32	14	12	9	230
NJBEP3250230		296	270	4	198	168	100	79	64	32	14	12	9	230
NJBEP3275150		296	270	6	318	264	168	133	88	46	28	24	9	230
NJBEP3275230		296	270	6	318	264	168	133	88	46	28	24	9	230
NJBEP5032150		476	450	2	176	146	114	90	74	27	23	21	0	470
NJBEP5032230		476	450	2	176	146	114	90	74	27	23	21	0	470
NJBEP7532150		728	700	2	274	228	176	140	116	43	37	33	9	720
NJBEP7532230		728	700	2	274	228	176	140	116	43	37	33	9	720

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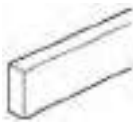
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Solid Copper Bar — Available in 1 Meter Length Pieces

Enclosure Catalog Number	Horizontal Bar Length – mm	Vertical Bar Length – mm	Catalog Number
For 10 x 3 mm length is 1 meter			**NCB1M**
NJBEP171709S0	128	90	
NJBEP2021090	195	97	
NJBEP2021150	195	97	
NJBEP2532150	300	230	
NJBEP3225150	230	300	
NJBEP3250150	480	305	
NJBEP3250230	480	305	
NJBEP3275150	730	300	
NJBEP3275230	730	300	
NJBEP5032150	305	480	
NJBEP5032230	305	480	
NJBEP7532150	300	730	
NJBEP7532230	300	730	



Cable Clamp for Copper Bar — Pack of 10 — 10 x 3 mm (0.394” x 0.118”)

Flexible	Solid	Catalog Number
0.5 to 4 mm² (20AWG-10AWG)	6 mm² (10AWG)	**NCC6MM**
2.5 to 16 mm² (14AWG-4AWG)	16 mm² (4AWG)	**NCC16MM**
16 to 35 mm² (6AWG-1AWG)	50 mm² (1/0)	**NCC50MM**



Spacer for Copper Bar — Supplied with Mounting Inserts

Description	Height – mm (in)	Catalog Number
Insulated	50 (1.97)	**NJBEPCBI**
Non-Insulated	50 (1.97)	**NJBEPCBNI**



Mounting Pan — Solid Galvanized Steel — Supplied with Screws

Enclosure Catalog Number	Dimensions – mm (in) Height x Width x Thickness	Catalog Number
NJBEP0808060	46 x 75 x 1 (1.8 x 2.95 x 0.04)	**NJBEP0407**
NJBEP121209S0	100 x 80 x 1 (3.9 x 3.2 x 0.04)	**NJBEP1008**
NJBEP171709S0	152 x 150 x 1 (5.98 x 5.9 x 0.04)	**NJBEP1515**
NJBEP2021090, NJBEP2021150	185 x 170 x 1.5 (7.28 x 6.69 x 0.06)	**NJBEP1518**
NJBEP3225150, NJBEP2532150	260 x 230 x 2 (10.2 x 9.1 x 0.08)	**NJBEP2623**
NJBEP3250150, NJBEP3250230, NJBEP5032150, NJBEP5032230	480 x 260 x 2 (18.9 x 10.2 x 0.08)	**NJBEP4826**
NJBEP3275150, NJBEP3275230, NJBEP7532150, NJBEP7532230	730 x 260 x 2 (28.7 x 10.2 x 0.08)	**NJBEP7326**



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Mounting Screws — Self Tapping — Used for Mounting DIN Rails and Mounting Pan — Pack of 50

	Description	Catalog Number
	Sheet metal screw with a drill point and a Phillips pan head	**JBEPMS8**

Earth Continuity Brass Plate — Thickness: 3.00 mm (0.12 in)

	Enclosure Catalog Number	Side – mm (in)	Catalog Number	Bottom – mm (in)	Catalog Number
	NJBEP121209S0	58 x 44 (2.28 x 1.73)	**NJBEP02S**	72 x 44 (2.83 x 1.73)	**NJBEP02B**
	NJBEP171709S0	105 x 65 (4.13 x 2.55)	**NJBEP05S**	127 x 65 (5 x 2.56)	**NJBEP05B**
	NJBEP2021090	105 x 65 (4.13 x 2.56)	**NJBEP06S**	150 x 65 (5.90 x 2.56)	**NJBEP06B**
	NJBEP2021150	105 x 105 (4.13 x 4.13)	**NJBEP07S**	150 x 105 (5.90 x 4.13)	**NJBEP07B**
	NJBEP2532150	150 x 116 (5.90 x 4.56)	**NJBEP08S**	250 x 116 (9.84 x 4.57)	**NJBEP08B**
	NJBEP3225150	250 x 116 (9.84 x 4.56)	**NJBEP10S**	150 x 116 (5.91 x 4.57)	**NJBEP10B**
	NJBEP3250150	250 x 116 (9.84 x 4.56)	**NJBEP11S**	180 x 116 (7.09 x 4.57)	**NJBEP11B**
	NJBEP3250230	250 x 196 (9.84 x 7.71)	**NJBEP16S**	180 x 196 (7.09 x 7.72)	**NJBEP16B**
	NJBEP3275150	250 x 116 (9.84 x 4.56)	**NJBEP12S**	305 x 116 (12.00 x 4.57)	**NJBEP12B**
	NJBEP3275230	250 x 196 (9.84 x 7.71)	**NJBEP17S**	305 x 196 (12.00 x 7.72)	**NJBEP17B**
	NJBEP5032150	180 x 116 (7.08 x 4.56)	**NJBEP09S**	250 x 116 (9.84 x 4.57)	**NJBEP09B**
	NJBEP5032230	180 x 196 (7.08 x 7.71)	**NJBEP13S**	250 x 196 (9.84 x 7.72)	**NJBEP13B**
	NJBEP7532150	305 x 116 (12.0 x 4.56)	**NJBEP14S**	250 x 116 (9.84 x 4.57)	**NJBEP14B**
	NJBEP7532230	305 x 196 (12.0 x 7.71)	**NJBEP15S**	250 x 196 (9.84 x 7.72)	**NJBEP15B**

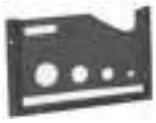
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Self Adhesive Pocket for Drawings — Set of 5, A4 Size

	External Dimension – mm (in)	Internal Dimensions – mm (in)	Catalog Number
	260 x 165 (10 x 6)	230 x 130 x 18 (9 x 5 x 1)	**NJBEPSAP**
	Set of 5 — Self adhesive plastic protective sleeve, Size A4.		**NJBEPSAPS**

Laminated Plastic Nameplate for Engraving ①

	Description	Size – mm (in)	Catalog Number
	White color with black lettering, two (2) mounting rivets included	65 x 18 (2.56 x 0.709)	**NNPW**
	Yellow color with black lettering, two (2) mounting rivets included	65 x 18 (2.56 x 0.709)	**NNPY**

Feed-Thru Earth/Ground Terminal

	Description	Size	Catalog Number
	Stainless steel, complete with gasket washer, lock washers, nuts for internal and external cable connections	M8	**NJBEPET**
	Set of 10 — Press fit, brass expansion insert	M5	**NJBEPEXI**

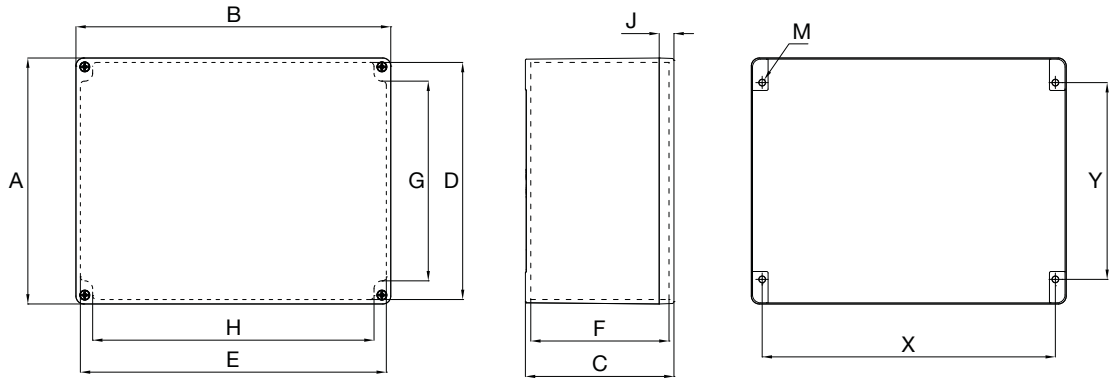
① *Due to the size of NJBEP0808060, optional Laminated Plastic Nameplate for Engraving is not recommended for this enclosure. The 85 x 85 x 60 mm (3.35 x 3.35 x 2.36 in) dimensions do not allow for mounting space beyond the factory adhered product label.*

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Dimensions in Millimeters (Inches) ①



Enclosure Catalog Number	External Dimension			Internal Dimensions					Cover	Body	Wall Fixing		
	A	B	C	D	E	F	G	H	J	Thickness	X	Y	M ②
NJBEP0808060	85 (3.346)	85 (3.346)	61 (2.402)	76.7 (3.020)	76.7 (3.020)	47 (1.850)	41 (1.614)	51 (2.008)	15 (0.591)	3.5 (0.138)	69 (2.717)	49 (1.929)	M4
NJBEP1212070	120 (4.724)	120 (4.724)	66 (2.598)	109.5 (4.311)	109.5 (4.311)	50.7 (1.996)	63 (4.528)	85 (3.346)	15 (0.591)	4.5 (0.177)	103 (4.055)	83 (3.268)	M5
NJBEP1212090	120 (4.724)	120 (4.724)	91 (3.583)	109.5 (4.311)	109.5 (4.311)	75 (2.953)	63 (4.528)	85 (3.346)	40 (1.575)	4.5 (0.177)	103 (4.055)	83 (3.268)	M5
NJBEP121209S0	120 (4.724)	120 (4.724)	91 (3.583)	108.6 (4.276)	108.6 (4.276)	75 (2.953)	63 (4.528)	85 (3.346)	15 (0.591)	4.5 (0.177)	103 (4.055)	83 (3.268)	M5
NJBEP171709S0	170 (6.693)	170 (6.693)	91 (3.583)	158.5 (6.240)	158.5 (6.240)	72 (2.835)	112.5 (4.429)	137 (5.394)	15 (0.591)	4.5 (0.177)	153 (6.024)	131 (5.157)	M5
NJBEP2021150	200 (7.874)	215 (8.465)	91 (3.583)	185.8 (7.315)	200.8 (7.906)	76 (2.992)	116 (4.567)	159 (6.260)	20 (0.787)	6.1 (0.240)	189 (7.441)	146 (5.748)	M6
NJBEP2021150	200 (7.874)	215 (8.465)	150 (5.906)	185.8 (7.315)	200.8 (7.906)	122.5 (4.823)	114.8 (4.519)	159 (6.260)	20 (0.787)	6.1 (0.240)	189 (7.441)	146 (5.748)	M6
NJBEP2532150	250 (9.843)	320 (12.598)	150 (5.906)	241 (9.488)	311 (12.244)	133.5 (5.256)	171 (6.732)	267 (10.512)	15 (0.591)	5 (0.197)	200 (7.874)	298 (11.732)	M6
NJBEP3225150	320 (12.598)	250 (9.843)	150 (5.906)	311 (12.244)	241 (9.488)	133.5 (5.256)	267 (10.512)	171 (6.732)	15 (0.591)	5 (0.197)	298 (11.732)	200 (7.874)	M6
NJBEP3250150	320 (12.598)	500 (19.685)	150 (5.906)	311 (12.244)	491 (19.331)	133.5 (5.256)	267 (10.512)	421 (16.575)	15 (0.591)	5 (0.197)	298 (11.732)	447 (17.598)	M6
NJBEP3250230	320 (12.598)	500 (19.685)	230 (9.055)	311 (12.244)	491 (19.331)	213.5 (8.406)	267 (10.512)	421 (16.575)	15 (0.591)	5 (0.197)	298 (11.732)	447 (17.598)	M6
NJBEP3275150	320 (12.598)	750 (29.528)	150 (5.906)	311 (12.244)	741 (29.173)	133.5 (5.256)	267 (10.512)	671 (26.417)	15 (0.591)	5 (0.197)	298 (11.732)	698 (27.480)	M6
NJBEP3275230	320 (12.598)	750 (29.528)	230 (9.055)	311 (12.244)	741 (29.173)	213.5 (8.406)	267 (10.512)	671 (26.417)	15 (0.591)	5 (0.197)	298 (11.732)	698 (27.480)	M6
NJBEP5032150	500 (19.685)	320 (12.598)	150 (5.906)	491 (19.331)	311 (12.244)	133.5 (5.256)	421 (16.575	267 (10.512)	15 (0.591)	5 (0.197)	447 (17.598)	298 (11.732)	M6
NJBEP5032230	500 (19.685)	320 (12.598)	230 (9.055)	491 (19.331)	311 (12.244)	213.5 (8.406)	421 (16.575	267 (10.512)	15 (0.591)	5 (0.197)	447 (17.598)	298 (11.732)	M6
NJBEP7532150	750 (29.528)	320 (12.598)	150 (5.906)	741 (29.173)	311 (12.244)	133.5 (5.256)	671 (26.417	267 (10.512)	15 (0.591)	5 (0.197)	298 (11.732)	698 (27.480)	M6
NJBEP7532230	750 (29.528)	320 (12.598)	230 (9.055)	741 (29.173)	311 (12.244)	213.5 (8.406)	671 (26.417)	267 (10.512)	15 (0.591)	5 (0.197)	698 (27.480)	298 (11.732)	M6

① Wall fixing screw diameter 5 mm (0.20"). Wall fixing screw hole 6 mm (0.24").
② Screw to be used for mounting box.

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A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Instrumentation Applications

Increased Safety. Factory Drilled and Equipped

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Applications

- Instrumentation junction boxes are used to run process or remote information to control room.
- For use in intrinsic safety or non intrinsic safety systems.
- Designed for Zones 1 or 2 areas, where flammable gases or vapors are present either continuously, often or accidentally such as:
  — Petroleum
  — Chemical
  — Refineries
  — Other industrial process facilities
- Ideal for indoor/outdoor use with wet or corrosive atmospheres.
- Designed for use in Zones 21 or 22 areas where flammables dusts (conductive and non conductive) are present either continuously, often or accidentally such as:
  — Food processing
  — Dairy
  — Brewing
  — Other industrial process facilities

Features

- Available in a wide range of sizes:
  — For armored, unarmored or armored lead sheathed cable
  — For use with a variety of connection and earth terminals
- Optional external hinged enclosures:
  — Reversible door opening 120°.
  — Door with double bar lock.
  — Key locking facility.
- Terminal blocks on DIN rail.

Standard materials

- Enclosures: Static resistant carbon filled fiberglass reinforced polyester (FRP)
- Hardware: stainless steel
- Gasket for other sizes: EPDM (ethylene propylene diene monomer rubber)

Options

- External hinges are available on the following sizes:
  — 500 x 320 x 150
  — 500 x 320 x 230
  — 750 x 320 x 150
  — 750 x 320 x 230
- Removable glands plates
- Nameplates
- Mounting pan
- Inside pocket for document
- Consult factory for custom drilling, assembly requirements and other ambient temperatures.



Cable Glands are available as an Option.

NBR IEC Brazilian Certifications and Compliances ①

- Type : JBEP
  — Gas, Zones 1 and 2:
  - IEC Marking: Ex e IIC Gb, Ex e [ia Ga] IIC Gb, Ex ei IIC Gb, Ex emb [ia Ga] IIC Gb, Ex de IIC Gb, Ex de IIB+H_2 Gb, Ex ia IIC T6 Ga
  - T Rating: T4 to T6
  — Dust, Zones 21 and 22:
  - IEC Marking: Ex tb IIIC Db
  — Ambient Temperature: -55 °C to +90 °C (according to the components assembled inside the enclosure)
  — INMETRO Certificate: BVC 13.3238-X
  — INMETRO Ordinance: 179
  — Ingress Protection (solid and liquid): IP66
  — Impact Resistance (shock): IK10
  — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-31
  — Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- NEC/CEC (Class I, Zone 1, AEx e IIC, T5 or T6; Ex e IIC, T5 or T6; IP66), ATEX/IECEx (Zones 1 and 2 – 21 and 22; Ex II 2 GD; IP66 – IK10) Certified JBEP Series fiberglass reinforced polyester junction boxes are available for instrumentation applications. Contact your local sales representative for more information.
- For a complete offering of cable glands for use with armored and unarmored cable, see *Fittings: Cable Glands*.

① *The ambient temperature for complete assembly is equal to the lowest ambient temperature of the components used.*

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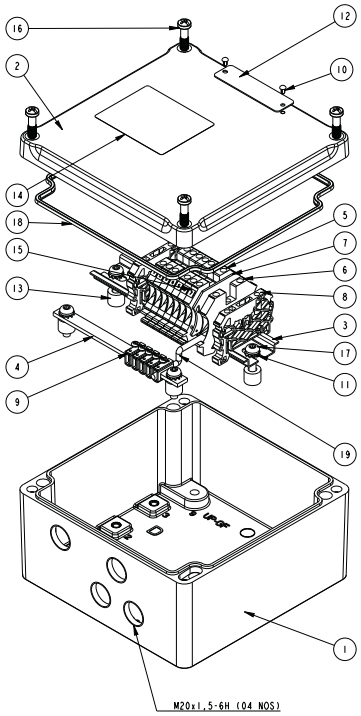
A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Instrumentation Applications

Increased Safety. Factory Drilled and Equipped

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Illustrated Features — Sample of NJBEP171709NI01

	Description
1	Body Of Polyester Box 170 x 170 x 90
2	Cover Of Polyester Box 170 x 170 x 91
3	DIN Rail
4	Copper Bar 10 x 3
5	Terminal Block - NBR IEC: Ex e
6	Terminal Block - NBR IEC: Ground
7	Plate - NBR IEC: Plate
8	End Bracket
9	Cable Clamp 2.5 mm^2 - Capacity
10	Stainless Steel Rivet 2.5 x 5
11	Serrated Washer 5
12	Label Gravoply - Yellow
13	Nylons Spacer Lg. 10 Mm
14	Label 54 x 68
15	Terminal Marker
16	Screw M6 x 20 x 10
17	Screw M5 x 20
18	Gasket For Polyester Box 170 x 170 x 91
19	G/Y Cable 2.5 mm^2



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Zone 1 and 2 - 21 and 22
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IP66 - IK10

The Catalog Numbering Guide is a reference tool to explain the make-up of the catalog number. It is not to be used to create a custom product for ordering.

Catalog Numbering Guide - NJBEP Polyester Junction Boxes for Instrumentation Applications

NJBE	P	17	17	09	A	I	01	D
Series: NJBE - NBR IEC Certified Junction Box	Material: P - Polyester	Dimensions Height mm (in): 17 - 170 (6.69) 20 - 200 (7.87) 21 - 215 (8.47) 25 - 250 (9.84) 32 - 320 (12.60) 50 - 500 (19.69) 75 - 750 (29.53)	Dimensions Width mm (in): 17 - 170 (6.69) 21 - 215 (8.47) 25 - 250 (9.84) 32 - 320 (12.60) 50 - 500 (19.69) 75 - 750 (29.53)	Dimensions Depth mm (in): 09 - 91 (3.58) 15 - 150 (5.91) 23 - 230 (9.06)	Cable Type: A - Armored N - Non-Armored L - Armored Lead Sheathed	Options: I - Instrumentation	Suffix: 01 to 99 Assigned at Factory	Options: D - Drain

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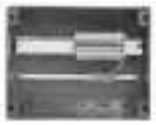
A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Instrumentation Applications

Increased Safety. Factory Drilled and Equipped

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Ex eb IIC Factory Drilled JBEP Polyester Junction Boxes Equipped with Terminals for Instrumentation Applications with Unarmored Cables

Fitted with: Horizontal beige terminal block. Copper bar with cable clamps or continuity shields. Yellow laminated plastic label with black lettering. M16 to M32 threaded entries. M40 to M50 clearance holes. Cable glands and plugs ordered separately.





Unarmored Cables

For Cable	Terminal Block 0.5/2.5 mm² Qty.	Earth Terminal 0.5/2.5 mm² Qty.	Copper Bar 10 x 3 mm Qty.	Cable Clamp 0.5/2.5 mm² Qty.	Multi–Cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number ①
07G1.5	7	1	1	5	M20	3	**NJBEP171709NI01**
12G1.5	12	1	1	8	M25	6	**NJBEP202115NI02**
19G1.5	19	1	1	11	M25	9	**NJBEP253215NI03**
24G1.5	24	1	1	14	M32	12	**NJBEP253215NI04**
27G1.5	27	1	1	15	M32	13	**NJBEP253215NI05**
37G1.5	37	1	1	20	M32	18	**NJBEP253215NI06**
07G2.5	7	1	1	5	M20	3	**NJBEP171709NI07**
12G2.5	12	1	1	8	M25	6	**NJBEP202115NI08**
19G2.5	19	1	1	11	M32	9	**NJBEP253215NI09**
24G2.5	24	1	1	14	M32	12	**NJBEP253215NI10**
27G2.5	27	1	1	15	M32	13	**NJBEP253215NI11**
37G2.5	37	1	1	20	M40	18	**NJBEP253215NI12**

For Cable	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi–Cable Cable Entry Qty. 1	Single Cable Entries M16 Qty.	Catalog Number ①
07IP05	14	7	M20	7	**NJBEP202115NI21**
07IT05	21	7	M20	7	**NJBEP202115NI22**
12IP05	24	12	M25	12	**NJBEP253215NI23**
12IT05	36	12	M25	12	**NJBEP253215NI24**
19IP05	38	19	M32	19	**NJBEP253215NI25**
27IP05	54	27	M32	27	**NJBEP325015NI26**
07IP09	14	7	M25	7	**NJBEP202115NI27**
07IT09	21	7	M25	7	**NJBEP202115NI28**
12IP09	24	12	M32	12	**NJBEP253215NI29**
12IT09	36	12	M32	12	**NJBEP253215NI30**
19IP09	38	19	M32	19	**NJBEP253215NI31**
27IP09	54	27	M40	27	**NJBEP325015NI32**

For Cable	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi–Cable Cable Entry Qty. 1	Single Cable Entries M16 Qty.	Catalog Number ①
07IP05	15	8	M25	7	**NJBEP202115NI41**
07IT05	22	8	M32	7	**NJBEP202115NI42**
12IP05	25	13	M32	12	**NJBEP253215NI43**
12IT05	37	13	M32	12	**NJBEP253215NI44**
19IP05	39	20	M40	19	**NJBEP253215NI45**
27IP05	55	28	M40	27	**NJBEP325015NI46**
07IP09	15	8	M32	7	**NJBEP202115NI47**
07IT09	22	8	M32	7	**NJBEP202115NI48**
12IP09	25	13	M40	12	**NJBEP253215NI49**
12IT09	37	13	M40	12	**NJBEP253215NI50**
19IP09	39	20	M50	19	**NJBEP253215NI51**
27IP09	55	28	M50	27	**NJBEP325015NI52**

① *For JBEP terminal junction box with a drain, add suffix **D** to the end of the catalog number; example: JBEP171709NI01**D**.*

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A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Instrumentation Applications

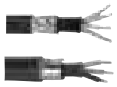
Increased Safety. Factory Drilled and Equipped

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Ex eb IIC Factory Drilled JBEP Polyester Junction Boxes Equipped with Terminals for Instrumentation Applications with Armored Cables

Fitted with: Horizontal beige terminal block. Copper bar with cable clamps or continuity shields. Yellow laminated plastic label with black lettering. Earth continuity brass plate. M8 external earth crossing terminal. M20 to M32 threaded entries. M40 to M50 clearance holes. Cable glands and plugs ordered separately.





Armored Cables

For Cable	Terminal Block 0.5/2.5 mm² Qty.	Earth Terminal 0.5/2.5 mm² Qty.	Copper Bar 10 x 3 mm Qty.	Cable Clamp 0.5/2.5 mm² Qty.	Multi–Cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number ①
07G1.5	7	1	1	5	M20	3	**NJBEP171709AI01**
12G1.5	12	1	1	8	M20	6	**NJBEP202115AI02**
19G1.5	19	1	1	11	M25	9	**NJBEP253215AI03**
24G1.5	24	1	1	14	M25	12	**NJBEP253215AI04**
27G1.5	27	1	1	15	M25	13	**NJBEP253215AI05**
37G1.5	37	1	1	20	M32	18	**NJBEP253215AI06**
07G2.5	7	1	1	5	M20	3	**NJBEP171709AI07**
12G2.5	12	1	1	8	M25	6	**NJBEP202115AI08**
19G2.5	19	1	1	11	M25	9	**NJBEP253215AI09**
24G2.5	24	1	1	14	M32	12	**NJBEP253215AI10**
27G2.5	27	1	1	15	M32	13	**NJBEP253215AI11**
37G2.5	37	1	1	20	M32	18	**NJBEP253215AI12**

For Cable	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi–Cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number ①
07IP05	14	7	M20	7	**NJBEP202115AI21**
07IT05	21	7	M20	7	**NJBEP202115AI22**
12IP05	24	12	M25	12	**NJBEP253215AI23**
12IT05	36	12	M25	12	**NJBEP253215AI24**
19IP05	38	19	M25	19	**NJBEP253215AI25**
27IP05	54	27	M32	27	**NJBEP325015AI26**
07IP09	14	7	M25	7	**NJBEP202115AI27**
07IT09	21	7	M25	7	**NJBEP202115AI28**
12IP09	24	12	M25	12	**NJBEP253215AI29**
12IT09	36	12	M32	12	**NJBEP253215AI30**
19IP09	38	19	M32	19	**NJBEP253215AI31**
27IP09	54	27	M40	27	**NJBEP325015AI32**

For Cable	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi–Cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number ①
07IP05	15	8	M25	7	**NJBEP202115AI41**
07IT05	22	8	M25	7	**NJBEP202115AI42**
12IP05	25	13	M32	12	**NJBEP253215AI43**
12IT05	37	13	M32	12	**NJBEP253215AI44**
19IP05	39	20	M32	19	**NJBEP253215AI45**
27IP05	55	28	M40	27	**NJBEP325015AI46**
07IP09	15	8	M32	7	**NJBEP202115AI47**
07IT09	22	8	M32	7	**NJBEP202115AI48**
12IP09	25	13	M40	12	**NJBEP253215AI49**
12IT09	37	13	M40	12	**NJBEP253215AI50**
19IP09	39	20	M40	19	**NJBEP253215AI51**
27IP09	55	28	M50	27	**NJBEP325015AI52**

① *For JBEP terminal junction box with a drain, add suffix **D** to the end of the catalog number; example: JBEP171709NI01**D**.*

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A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Instrumentation Applications

Increased Safety. Factory Drilled and Equipped

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Ex eb IIC Factory Drilled JBEP Polyester Junction Boxes Equipped with Terminals for Instrumentation Applications with Lead Sheath Armored Cables

Fitted with: Horizontal beige terminal block. Copper bar with cable clamps or continuity shields. Yellow laminated plastic label with black lettering. Earth continuity brass plate. M8 external earth crossing terminal. M20 to M32 threaded entries. M40 to M50 clearance holes. Cable glands and plugs ordered separately.





Armored Cables With lead sheath

For Cable	Terminal Block 0.5/2.5 mm² Qty.	Earth Terminal 0.5/2.5 mm² Qty.	Copper Bar 10 x 3 mm Qty.	Cable Clamp 0.5/2.5 mm² Qty.	Multi–Cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number ①
07G1.5	7	1	1	5	M20	3	**NJBEP171709LI01**
12G1.5	12	1	1	8	M25	6	**NJBEP202115LI02**
19G1.5	19	1	1	11	M25	9	**NJBEP253215LI03**
24G1.5	24	1	1	14	M32	12	**NJBEP253215LI04**
27G1.5	27	1	1	15	M32	13	**NJBEP253215LI05**
37G1.5	37	1	1	20	M32	18	**NJBEP253215LI06**
07G2.5	7	1	1	5	M20	3	**NJBEP171709LI07**
12G2.5	12	1	1	8	M25	6	**NJBEP202115LI08**
19G2.5	19	1	1	11	M32	9	**NJBEP253215LI09**
24G2.5	24	1	1	14	M32	12	**NJBEP253215LI10**
27G2.5	27	1	1	15	M32	13	**NJBEP253215LI11**
37G2.5	37	1	1	20	M40	18	**NJBEP253215LI12**

For Cable	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi–Cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number ①
07IP05	14	7	M20	7	**NJBEP202115LI21**
07IT05	21	7	M20	7	**NJBEP202115LI22**
12IP05	24	12	M25	12	**NJBEP253215LI23**
12IT05	36	12	M25	12	**NJBEP253215LI24**
19IP05	38	19	M25	19	**NJBEP253215LI25**
27IP05	54	27	M32	27	**NJBEP325015LI26**
07IP09	14	7	M25	7	**NJBEP202115LI27**
07IT09	21	7	M25	7	**NJBEP202115LI28**
12IP09	24	12	M32	12	**NJBEP253215LI29**
12IT09	36	12	M32	12	**NJBEP253215LI30**
19IP09	38	19	M40	19	**NJBEP253215LI31**
27IP09	54	27	M40	27	**NJBEP325015LI32**

For Cable	Terminal Block 0.5/2.5 mm² Qty.	Continuity Shield Qty.	Multi–Cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number ①
07IP05	15	8	M25	7	**NJBEP202115LI41**
07IT05	22	8	M32	7	**NJBEP202115LI42**
12IP05	25	13	M32	12	**NJBEP253215LI43**
12IT05	37	13	M32	12	**NJBEP253215LI44**
19IP05	39	20	M40	19	**NJBEP253215LI45**
27IP05	55	28	M50	27	**NJBEP325015LI46**
07IP09	15	8	M32	7	**NJBEP202115LI47**
07IT09	22	8	M32	7	**NJBEP202115LI48**
12IP09	25	13	M40	12	**NJBEP253215LI49**
12IT09	37	13	M40	12	**NJBEP253215LI50**
19IP09	39	20	M50	19	**NJBEP253215LI51**
27IP09	55	28	M50	27	**NJBEP325015LI52**

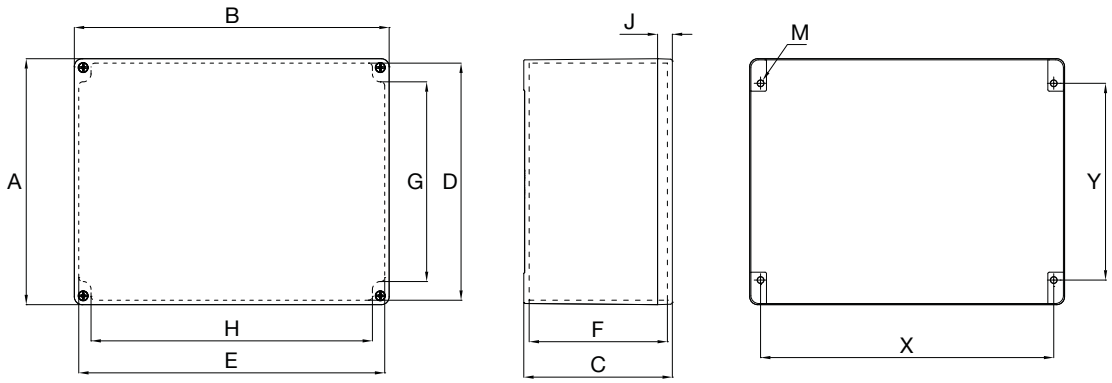
① *For JBEP terminal junction box with a drain, add suffix **D** to the end of the catalog number; example: JBEP171709NI01**D**.*

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A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Instrumentation Applications

Increased Safety. Factory Drilled and Equipped

Dimensions in Millimeters (Inches) ①



Enclosure Catalog Number	External Dimension A	B	C	D	Internal Dimensions E	F	G	H	Cover J	Body Thickness	Wall Fixing X	Y	M ②
NJBEP171709S0	170 (6.693)	170 (6.693)	91 (3.583)	158.5 (6.240)	158.5 (6.240)	72 (2.835)	112.5 (4.429)	137 (5.394)	15 (0.591)	4.5 (0.177)	153 (6.024)	131 (5.157)	M5
NJBEP2021150	200 (7.874)	215 (8.465)	150 (5.906)	185.8 (7.315)	200.8 (7.906)	122.5 (4.823)	114.8 (4.519)	159 (6.260)	20 (0.787)	6.1 (0.240)	189 (7.441)	146 (5.748)	M6
NJBEP2532150	250 (9.843)	320 (12.598)	150 (5.906)	241 (9.488)	311 (12.244)	133.5 (5.256)	171 (6.732)	267 (10.512)	15 (0.591)	5 (0.197)	200 (7.874)	298 (11.732)	M6
NJBEP3250150	320 (12.598)	500 (19.685)	150 (5.906)	311 (12.244)	491 (19.331)	133.5 (5.256)	267 (10.512)	421 (16.575)	15 (0.591)	5 (0.197)	298 (11.732)	447 (17.598)	M6

① Wall fixing screw diameter 5 mm (0.20"). Wall fixing screw hole 6 mm (0.24").
② Screw to be used for mounting box.

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A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Electrical and Power Applications

Increased Safety. Factory Drilled and Equipped

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Applications

- Electrical junction boxes are used to distribute power to lighting and to other Power and control circuits.
- Power junction boxes are used to connect cables together to supply main lighting circuits, motors, service receptacles and other equipment.
- Designed for Zones 1 or 2 areas, where flammable gases or vapors are present either continuously, often or accidentally such as:
  — Petroleum
  — Chemical
  — Refineries
  — Other industrial process facilities
- Ideal for indoor/outdoor use with wet or corrosive atmospheres.
- Designed for use in Zones 21 or 22 areas where flammables dusts (conductive and non conductive) are present either continuously, often or accidentally such as:
  — Food processing
  — Dairy
  — Brewing
  — Other industrial process facilities

Features

- Available in multiple terminal configurations.
- Supplied with terminals Size 2.5 mm^2 through 240 mm^2.
- Optional external hinged enclosures:
  — Reversible door opening 120°.
  — Door with double bar lock.
  — Key locking facility.

Standard materials

- Enclosures: Static resistant carbon filled fiberglass reinforced polyester (FRP)
- Hardware: stainless steel
- Gasket for sizes 85 x 85, 120 x 120: silicone
- Gasket for other sizes: EPDM (ethylene propylene diene monomer rubber)

Options

- External hinges are available on the following sizes:
  — 500 x 320 x 150
  — 500 x 320 x 230
  — 750 x 320 x 150
  — 750 x 320 x 230
- Removable glands plates
- Nameplates
- Mounting pan
- Inside pocket for document
- Consult factory for custom drilling, assembly requirements and other ambient temperatures.

NBR IEC Brazilian Certifications and Compliances ①

- Type : JBEP
  — Gas, Zones 1 and 2:
    - IEC Marking: Ex e IIC Gb, Ex e [ia Ga] IIC Gb, Ex ei IIC Gb, Ex emb [ia Ga] IIC Gb, Ex de IIC Gb, Ex de IIB+H_2 Gb, Ex ia IIC T6 Ga
    - T Rating: T4 to T6
  — Dust, Zones 21 and 22:
    - IEC Marking: Ex tb IIIC Db
  — Ambient Temperature: -55 °C to +90 °C (according to the components assembled inside the enclosure)
  — INMETRO Certificate: BVC 13.3238-X
  — INMETRO Ordinance: 179
  — Ingress Protection (solid and liquid): IP66
  — Impact Resistance (shock): IK10
  — Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-11, 60079-31
  — Other Standards: ABNT NBR IEC 60529 (IP)



Un–Armored Cable Glands are Supplied as Standard.
Armored Cable Glands are available as an Option.



Sample of 2 x JBEP753215

Related Products

- NEC/CEC (Class I, Zone 1, AEx e IIC, T5 or T6; Ex e IIC, T5 or T6; IP66), ATEX/IECEx (Zones 1 and 2 – 21 and 22; ⟨Ex⟩ II 2 GD; IP66 – IK10) Certified JBEP Series fiberglass reinforced polyester junction boxes are available for electrical and power applications. Contact your local sales representative for more information.
- For a complete offering of cable glands for use with armored and unarmored cable, see *Fittings: Cable Glands*.

① *The ambient temperature for complete assembly is equal to the lowest ambient temperature of the components used.*

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NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

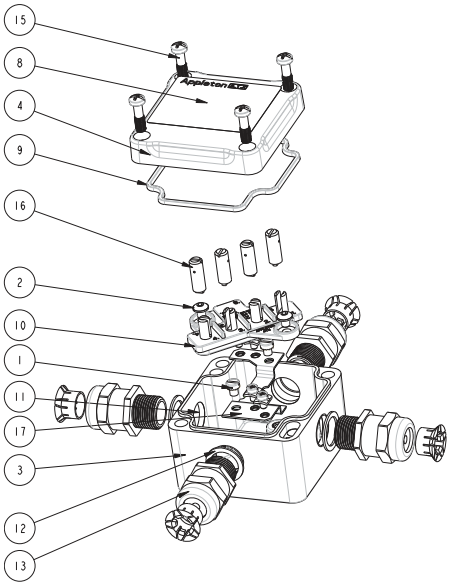
The Catalog Numbering Guide is a reference tool to explain the make-up of the catalog number. It is not to be used to create a custom product for ordering.

Catalog Numbering Guide - NJBEP Polyester Junction Boxes for Electrical and Power Applications

NJBE	P	08	08	06	A	E	01	T
Series: NJBE - NBR IEC Certified Junction Box	Material: P - Polyester	Dimensions Height mm (in): 08 - 85 (3.35) 12 - 120 (4.72) 17 - 170 (6.69) 20 - 200 (7.87) 25 - 250 (9.84) 32 - 320 (12.60) 50 - 500 (19.69) 75 - 750 (29.53)	Dimensions Width mm (in): 08 - 85 (3.35) 12 - 120 (4.72) 17 - 170 (6.69) 21 - 215 (8.47) 25 - 250 (9.84) 32 - 320 (12.60) 50 - 500 (19.69) 75 - 750 (29.53)	Dimensions Depth mm (in): 06 - 61 (2.40) 09 - 91 (3.58) 09S - 91 (3.58) 10 - 95 (3.74) 15 - 150 (5.91) 23 - 230 (9.06)	Cable Type: A - Armored N - Non-Armored	Options: *(Options must be listed alphabetically)* E - Electrical: 2.5 mm² (14AWG) x 10 mm² (6AWG) P - Power: 16 mm² (6AWG) to 240 mm² (474MCM)	Suffix: 01 to 99 Assigned at Factory	Other Suffix: T - Mantle Clamping (Pillar Terminals)

Illustrated Features — Sample of NJBEP080806NE04T

	Description
1	Screw M5 X 6
2	Pan Head Screw M4 X 7
3	NJBEP0808060 - Base Holes: 3 x Ø 20.5
4	Cover Of Polyester Box Type 85 x 85 x 61
8	Nameplate
9	Gasket Box Type 85 x 85 x 61
10	Hood Terminals Compact Set
11	Entry Thread Seal M20
12	Nickel-Plated Brass Locknuts M20 X I.5
13	EEx e M20 Cable Gland
15	Screw M6 X 20 X 10
16	Hood Term Cover
17	Earth Plate



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A.T.X.® NJBEP Series FRP Terminal Junction Boxes for Electrical/Power Applications

Increased Safety. Factory Drilled and Equipped

Maximum Capacity Per Terminal: 4 x 2.5 mm² or 2 x 4 mm² + 2 x 2.5 mm²; 4 x 6 mm² or 3 x 10 mm² + 4 mm²

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10



JBEP080806NE04T

Ex eb IIC Factory Drilled JBEP Polyester Junction Boxes Equipped with 4 Live Mantle Clamping (Pillar Terminals) and 1 Earth Terminal Per Way

Maximum capacity per terminal:
- *4 x 2.5 mm² or 2 x 4 mm² + 2 x 2.5 mm², 550 Volts*

Maximum capacity per earth terminal:
- *1 x 4 mm²*

Rating (Amps):
- *28 Amps for 2.5 mm², 38 Amps for 4 mm²*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Catalog Number
JBEP080806	3 x M20 with earth continuity sheet		0.42 (0.93)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**JBEP080806AE03T**
JBEP080806	3 x M20 with three cable glands for unarmored cable – diameter 6.5 to 14.5 mm (0.26 to 0.57 in)		0.45 (0.99)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**JBEP080806NE03T**
JBEP080806	4 x M20 with earth continuity sheet		0.43 (0.95)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**JBEP080806AE04T**
JBEP080806	4 x M20 with four cable glands for unarmored cable – diameter 6.5 to 14.5 mm (0.26 to 0.57 in)		0.48 (1.06)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**JBEP080806NE04T**

Ex eb IIC Factory Drilled JBEP Polyester Junction Boxes Equipped with 5 Live Mantle Clamping (Pillar Terminals) and 1 Earth Terminal Per Way

Maximum capacity per terminal:
- *4 x 6 mm² or 3 x 10 mm² + 4 mm², 690 Volts*

Maximum capacity per earth terminal:
- *1 x 10 mm²*

Rating (Amps):
- *28 Amps for 2.5 mm², 38 Amps for 4 mm², 42 Amps for 10 mm²*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Catalog Number
JBEP121209S	3 x M20 with earth continuity sheet		0.85 (1.87)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**JBEP121209AE03T**
JBEP121209S	3 x M25 with three cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in) ①		0.9 (1.98)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**JBEP121209NE13T**
JBEP121209S	4 x M20 with earth continuity sheet		0.88 (1.94)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**JBEP121209AE04T**
JBEP121209S	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in) ①		0.95 (2.09)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**JBEP121209NE14T**

① *Must include 4 cable glands + 2 plugs for the 4 entries. For non armored cable, change to M20 and use catalog number JBEP121209NE04T or JBEP121209NE03T.*

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A.T.X.® NJBEP Series FRP Terminal Junction Boxes for Electrical/Power Applications

Increased Safety. Factory Drilled and Equipped

Maximum Capacity Per Terminal: 4 x 6 mm²

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with 8 Live Mantle Clamping (Pillar Terminals) and 1 Earth Terminal Per Way

Maximum capacity per terminal:
- *4 x 6 mm² or 3 x 10 mm² + 4 mm², 690 Volts*

Maximum capacity per earth terminal:
- *1 x 10 mm²*

Rating (Amps):
- *28 Amps for 2.5 mm², 38 Amps for 4 mm², 42 Amps for 10 mm²*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Catalog Number
NJBEP171709	4 x M20 with earth continuity sheet		1.63 (3.59)	8.91 x 10⁸ (54.3)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE04T**
NJBEP171709S0	4 x M20 with three cable glands for unarmored cable – diameter 6.5 to 14.5 mm (0.26 to 0.57 in)		1.55 (3.42)	8.91 x 10⁸ (54.3)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE04T**
NJBEP171709	6 x M20 with earth continuity sheet		1.55 (3.42)	8.91 x 10⁸ (54.3)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE06T**
NJBEP171709	6 x M20 with three cable glands for unarmored cable – diameter 6.5 to 14.5 mm (0.26 to 0.57 in)		1.65 (3.64)	8.91 x 10⁸ (54.3)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE06T**
NJBEP171709	4 x M25 with earth continuity sheet		1.62 (3.57)	8.91 x 10⁸ (54.3)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE14T**
NJBEP171709	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.60 (3.53)	8.91 x 10⁸ (54.3)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE14T**
NJBEP171709	6 x M25 with earth continuity sheet		1.55 (3.42)	8.91 x 10⁸ (54.3)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE16T**
NJBEP171709	6 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.65 (3.64)	8.91 x 10⁸ (54.3)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE16T**

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A.T.X.® NJBEP Series FRP Terminal Junction Boxes for Electrical/Power Applications

Increased Safety. Factory Drilled and Equipped

Maximum Capacity Per Terminal: 2 x 4 mm²

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10



NJBEP080806AE05

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with 4 Screw Terminals and 2 Earth Terminals

- *2 x 4 mm² terminals, Rating 24 Amps, 275 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: P + N (1PE + 2L + 2N + 1PE)						PE L N PE
NJBEP080806	3 x M20 with earth continuity device		0.40 (0.88)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**NJBEP080806AE03**
NJBEP080806	3 x M20 with four cable glands for unarmored cable – diameter 6.5 to 14.5 mm (0.26 to 0.57 in)		0.42 (0.93)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**NJBEP080806NE03**
NJBEP080806	4 x M20 with earth continuity device		0.40 (0.88)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**NJBEP080806AE05**
NJBEP080806	4 x M20 with four cable glands for unarmored cable – diameter 6.5 to 14.5 mm (0.26 to 0.57 in)		0.45 (0.99)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**NJBEP080806NE05**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with 4 Screw Terminals and 2 Earth Terminals

- *2 x 4 mm² terminals*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Catalog Number
Configuration: P + N (1PE + 1 + 2 + 3 + 4 + 1PE)						PE 1 2 3 4 PE
NJBEP080806	2 x M20 with earth continuity device, rated Ex eb IIC		0.40 (0.88)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**NJBEP080806AE22**
NJBEP080806	2 x M20 with earth continuity device, rated Ex ia IIC		0.45 (0.99)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**NJBEP080806AE23**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with 6 Screw Terminals and 2 Earth Terminals

- *2 x 4 mm² terminals, Rating 24 Amps, 275 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Catalog Number
Configuration: P + N (1PE + 1 + 2 + 3 + 4 + 5 + 6 + 1PE)						PE 1 2 3 4 5 6 PE
NJBEP080806	4 x M20 with earth continuity device, rated Ex eb IIC		0.40 (0.88)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**NJBEP080806AE24**
NJBEP080806	4 x M20 with earth continuity device, rated Ex ia IIC		0.45 (0.99)	0.44 (26.9)	85 x 85 x 61 (3.35 x 3.35 x 2.40)	**NJBEP080806AE25**

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Maximum Capacity Per Terminal: 2 x 4 mm²; 2 x 6 mm²

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10



NJBEP121209AE05

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with 4 Screw Terminals and 2 Earth Terminals

- *2 x 4 mm² terminals, Rating 27 Amps, 275 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: P + N (1PE + 2L + 2N + 1PE)						PE L N PE
NJBEP121209S	4 x M20 with earth continuity device		0.89 (1.96)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209AE07**
NJBEP121209S	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		0.93 (2.05)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209NE08**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with 4 Screw Terminals and 2 Earth Terminals

- *2 x 6 mm² terminals, Rating 36 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: P + N (1PE + 2L + 2N + 1PE)						PE L N PE
NJBEP121209S	4 x M20 with earth continuity device		1.00 (2.20)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209AE45**
NJBEP121209S	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.00 (2.20)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209NE46**
NJBEP121209S	4 x M20 with earth continuity device		0.96 (2.12)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209AE47**
NJBEP121209S	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.00 (2.20)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209NE48**

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Maximum Capacity Per Terminal: 2 x 4 mm²

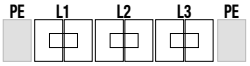
NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10



NJBEP121209NE26

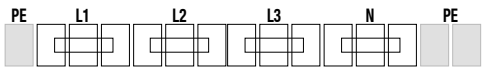
Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with 6 Screw Terminals and 2 Earth Terminals

- *2 x 4 mm² terminals, Rating 24 Amps, 275 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (1PE + 2L1 + 2L2 + 2L3 + 1PE)						
NJBEP121209	4 x M20 with earth continuity device		0.88 (1.94)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209AE25**
NJBEP121209	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		0.87 (1.92)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209NE26**
NJBEP121209	4 x M20 with earth continuity device		0.84 (1.85)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209AE27**
NJBEP121209	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		0.88 (1.94)	1.31 (80.0)	120 x 120 x 91 (4.72 x 4.72 x 3.58)	**NJBEP121209NE28**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with 12 Screw Terminals and 3 Earth Terminals

- *2 x 4 mm² terminals, Rating 22 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (1PE + 3L1 + 3L2 + 3L3 + 3N + 2PE)						
NJBEP171709S0	4 x M25 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE46**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE46**
NJBEP171709S0	6 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE47**
NJBEP171709S0	6 x M20 with four cable glands for unarmored cable – diameter 6.5 to 14.5 mm (0.26 to 0.57 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE47**
NJBEP171709S0	6 x M25 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE48**
NJBEP171709S0	6 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE48**

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Maximum Capacity Per Terminal: 6 mm²

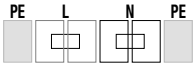
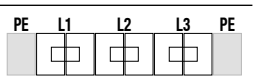
NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10



NJBEP171709AE06

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals and Earth Terminals

- *6 mm² terminals and earth terminals, Rating 32 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: P + N (1PE + 2L + 2N + 1PE)						
NJBEP171709S0	3 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE01**
NJBEP171709S0	3 x M25 with three cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE01**
NJBEP171709S0	4 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE02**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE02**
NJBEP171709S0	4 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE03**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE03**
Configuration: P + N (1PE + 3L + 3N + 2PE)						
NJBEP171709S0	6 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE04**
NJBEP171709S0	6 x M25 with six cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE04**
Configuration: TP (1PE + 2L1 + 2L2 + 2L3 + 1PE)						
NJBEP171709S0	3 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE05**
NJBEP171709S0	3 x M25 with three cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE05**
NJBEP171709S0	4 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE06**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE06**
NJBEP171709S0	4 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE07**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE07**

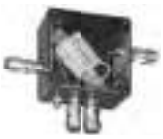
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Maximum Capacity Per Terminal: 6 mm²

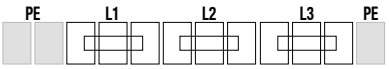
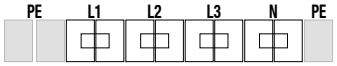
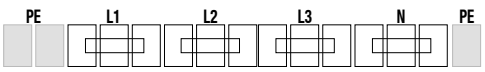
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IP66 - IK10



NJBEP171709AE06

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals and Earth Terminals

- *6 mm² terminals and earth terminals, Rating 32 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (2PE + 3L1 + 3L2 + 3L3 + 1PE)						
NJBEP171709S0	6 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE08**
NJBEP171709S0	6 x M25 with six cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE08**
Configuration: TP + N (2PE + 2L1 + 2L2 + 2L3 + 2N + 1PE)						
NJBEP171709S0	3 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE09**
NJBEP171709S0	3 x M25 with three cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE09**
NJBEP171709S0	4 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE10**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE10**
NJBEP171709S0	4 x M20 with earth continuity device		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE11**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.54 (3.40)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE11**
Configuration: TP + N (2PE + 3L1 + 3L2 + 3L3 + 3N + 1PE)						
NJBEP2021090	6 x M20 with earth continuity device		2.04 (4.50)	4.09 (249.28)	200 x 215 x 91 (7.87 x 8.46 x 3.58)	**NJBEP202110AE12**
NJBEP2021090	6 x M25 with six cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		2.04 (4.50)	4.09 (249.28)	200 x 215 x 91 (7.87 x 8.46 x 3.58)	**NJBEP202110NE12**

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NJBEP171709AE06

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals and Earth Terminals

- *10 mm² terminals and earth terminals, Rating 50 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: P + N (1PE + 2L + 2N + 1PE)						PE L N PE
NJBEP171709S0	3 x M20 with earth continuity device		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE51**
NJBEP171709S0	3 x M25 with three cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE51**
NJBEP171709S0	4 x M20 with earth continuity device		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE52**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE52**
NJBEP171709S0	4 x M20 with earth continuity device		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE53**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE53**

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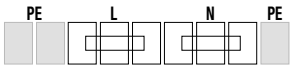
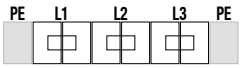
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NJBEP171709AE06

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals and Earth Terminals

- *10 mm² terminals and earth terminals, Rating 47 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: P + N (2PE + 3L + 3N + 1PE)						
NJBEP171709S0	6 x M20 with earth continuity device		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE54**
NJBEP171709S0	6 x M25 with six cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE54**
Configuration: TP (1PE + 2L1 + 2L2 + 2L3 + 1PE)						
NJBEP171709S0	3 x M25 with earth continuity device		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE55**
NJBEP171709S0	3 x M25 with three cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE55**
NJBEP171709S0	4 x M25 with earth continuity device		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE56**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE56**
NJBEP171709S0	4 x M25 with earth continuity device		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE57**
NJBEP171709S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		2.04 (4.50)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE57**

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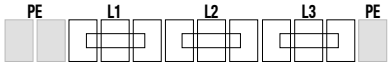
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IP66 - IK10



NJBEP171709AE61

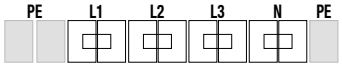
Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals and Earth Terminals

- *10 mm² terminals and earth terminals, Rating 37 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (2PE + 3L1 + 3L2 + 3L3 + 1PE)						
NJBEP171709S0	6 x M25 with earth continuity device		1.60 (3.60)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE58**
NJBEP171709S0	6 x M25 with six cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		1.60 (3.60)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE58**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals and Earth Terminals

- *10 mm² terminals and earth terminals, Rating 40 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 2L1 + 2L2 + 2L3 + 2N + 1PE)						
NJBEP171709S0	3 x M25 with earth continuity device		1.60 (3.60)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE59**
NJBEP171709S0	3 x M32 with three cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		1.60 (3.60)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE59**
NJBEP171709S0	4 x M25 with earth continuity device		1.60 (3.60)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE60**
NJBEP171709S0	4 x M32 with four cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		1.60 (3.60)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE60**
NJBEP171709S0	4 x M25 with earth continuity device		1.60 (3.60)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709AE61**
NJBEP171709S0	4 x M32 with four cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		1.60 (3.60)	2.63 (160.49)	170 x 170 x 91 (6.69 x 6.69 x 3.58)	**NJBEP171709NE61**

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Maximum Capacity Per Terminal: 10 mm²

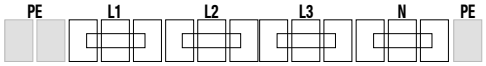
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NJBEP171709AE61

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals and Earth Terminals

- *10 mm² terminals and earth terminals, Rating 40 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 3L1 + 3L2 + 3L3 + 3N + 1PE)						
JBEP2021090	6 x M25 with earth continuity device		2.10 (4.60)	4.09 (249.28)	200 x 215 x 91 (7.87 x 8.46 x 3.58)	**NJBEP202110AE62**
JBEP2021090	6 x M32 with six cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		2.10 (4.60)	4.09 (249.28)	200 x 215 x 91 (7.87 x 8.46 x 3.58)	**NJBEP202110NE62**

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Maximum Capacity Per Terminal: 16 mm²

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NJBEP202115AP06

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *16 mm² terminals and earth terminals, Rating 60 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: P + N (1PE + 2L + 2N + 2PE)						PE L N PE
NJBEP202115S0	3 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP01**
NJBEP202115S0	3 x M25 with three cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP01**
NJBEP202115S0	4 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP02**
NJBEP202115S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP02**
NJBEP202115S0	4 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP03**
NJBEP202115S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP03**
NJBEP202115S0	4 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP04**
NJBEP202115S0	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP04**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *16 mm² terminals and earth terminals, Rating 55 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: P + N (2PE + 3L + 3N + 2PE)						PE L1 N PE
NJBEP202115S0	6 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP05**
NJBEP202115S0	6 x M25 with six cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP05**
NJBEP202115S0	6 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP06**
NJBEP202115S0	6 x M25 with six cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP06**

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Maximum Capacity Per Terminal: 16 mm²

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NJBEP202115AP06

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *16 mm² terminals and earth terminals, Rating 55 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (1PE + 2L1 + 2L2 + 2L3 + 2PE)						
NJBEP2021150	3 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP07**
NJBEP2021150	3 x M25 with three cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP07**
NJBEP2021150	4 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP08**
NJBEP2021150	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP08**
NJBEP2021150	4 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP09**
NJBEP2021150	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP09**
NJBEP2021150	4 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP10**
NJBEP2021150	4 x M25 with four cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP10**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *16 mm² terminals and earth terminals, Rating 43 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (2PE + 3L1 + 3L2 + 3L3 + 2PE						
NJBEP2021150	6 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP11**
NJBEP2021150	6 x M25 with six cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP11**
NJBEP2021150	6 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP12**
NJBEP2021150	6 x M25 with six cable glands for unarmored cable – diameter 8 to 17 mm (0.31 to 0.67 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP12**

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Maximum Capacity Per Terminal: 16 mm²

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NJBEP202115AP06

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *16 mm² terminals and earth terminals, Rating 45 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 2L1 + 2L2 + 2L3 + 2N + PE)					PE L1 L2 L3 N PE	
NJBEP2021150	3 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP13**
NJBEP2021150	3 x M32 with three cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP13**
NJBEP2021150	4 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP14**
NJBEP2021150	4 x M32 with four cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP14**
NJBEP2021150	4 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP15**
NJBEP2021150	4 x M32 with four cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP15**
NJBEP2021150	4 x M25 with earth continuity device		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115AP16**
NJBEP2021150	4 x M32 with four cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		4.00 (8.80)	6.45 (393.60)	200 x 215 x 150 (7.87 x 8.46 x 5.94)	**NJBEP202115NP16**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *16 mm² terminals and earth terminals, Rating 40 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 3L1 + 3L2 + 3L3 + 3N + 2PE)					PE L1 L2 L3 N PE	
NJBEP2532150	6 x M25 with earth continuity device		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.94)	**NJBEP253215AP17**
NJBEP2532150	6 x M32 with six cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.94)	**NJBEP253215NP17**
NJBEP2532150	6 x M25 with earth continuity device		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.94)	**NJBEP253215AP18**
NJBEP2532150	6 x M32 with six cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.94)	**NJBEP253215NP18**

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Maximum Capacity Per Terminal: 25/35 mm²

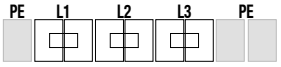
NBR IEC:
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IP66 - IK10



NJBEP253215NP02

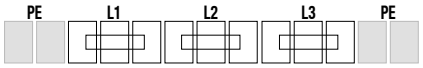
Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *25 mm² terminals and earth terminals, Rating 80 Amps, 690 Volts*
- *35 mm² terminals and earth terminals, Rating 98 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (1PE + 2L1 + 2L2 + 2L3 + 2PE)						
NJBEP253215	4 x M32 with earth continuity device		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.91)	**NJBEP253215AP01**
NJBEP253215	4 x M32 with four cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.91)	**NJBEP253215NP01**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud ①

- *25 mm² terminals and earth terminals, Rating 70 Amps, 690 Volts*
- *35 mm² terminals and earth terminals, Rating 80 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (2PE + 3L1 + 3L2 + 3L3 + 2PE)						
NJBEP253215	6 x M32 with earth continuity device		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.91)	**NJBEP253215AP02**
NJBEP253215	6 x M32 with six cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.91)	**NJBEP253215NP02**

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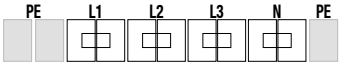
NBR IEC:
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IP66 - IK10



NJBEP253215NP02

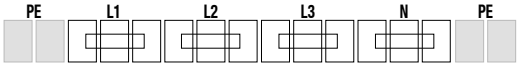
Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *25 mm² terminals and earth terminals, Rating 75 Amps, 690 Volts*
- *35 mm² terminals and earth terminals, Rating 85 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 2L1 + 2L2 + 2L3 + 2N + PE)						
NJBEP253215	4 x M32 with earth continuity device		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.91)	**NJBEP253215AP03**
NJBEP253215	4 x M32 with four cable glands for unarmored cable – diameter 10 to 25 mm (0.39 to 0.98 in)		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.91)	**NJBEP253215NP03**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *25 mm² terminals and earth terminals, Rating 58 Amps, 690 Volts*
- *35 mm² terminals and earth terminals, Rating 68 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 3L1 + 3L2 + 3L3 + 3N + 2PE)						
NJBEP253215	6 x M32 with earth continuity device		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.91)	**NJBEP253215AP04**
NJBEP253215	6 x M40 with six cable glands for unarmored cable – diameter 24 to 34 mm (0.94 to 1.34 in)		8.20 (18.00)	12.00 (732.28)	250 x 320 x 150 (9.84 x 12.60 x 5.91)	**NJBEP253215NP04**

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Maximum Capacity Per Terminal: 10 mm² to 50 mm²

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NJBEP503215AP24

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *10 mm² to 50 mm² terminals and earth terminals, Rating 125 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (1PE + 2L1 + 2L2 + 2L3 + 2PE)						PE L1 L2 L3 PE
NJBEP503215	4 x M40 with earth continuity device		8.50 (18.60)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215AP01**
NJBEP503215	4 x M40 with four cable glands for unarmored cable – diameter 24 to 34 mm (0.94 to 1.34 in)		8.50 (18.60)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215NP01**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *10 mm² to 50 mm² terminals and earth terminals , Rating 125 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (2PE + 3L1 + 3L2 + 3L3 + 2PE)						PE L1 L2 L3 PE
NJBEP503215	6 x M40 with earth continuity device		8.50 (18.60)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215AP02**
NJBEP503215	6 x M40 with six cable glands for unarmored cable – diameter 24 to 34 mm (0.94 to 1.34 in)		8.50 (18.60)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215NP02**

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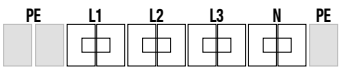
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NJBEP503215AP24

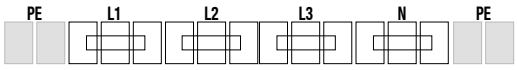
Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *10 mm² to 50 mm² terminals and earth terminals, Rating 125 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 2L1 + 2L2 + 2L3 + 2N + PE)						
NJBEP503215	4 x M40 with earth continuity device		8.50 (18.60)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215AP03**
NJBEP503215	4 x M40 with four cable glands for unarmored cable – diameter 24 to 34 mm (0.94 to 1.34 in)		8.50 (18.60)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215NP03**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *10 mm² to 50 mm² terminals and earth terminals, Rating 100 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 3L1 + 3L2 + 3L3 + 3N + 2PE)						
NJBEP503215	6 x M40 with earth continuity device		9.30 (20.50)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215AP24**
NJBEP503223	6 x M50 with six cable glands for unarmored cable – diameter 28 to 42 mm (1.10 to 1.65 in)		10.30 (22.70)	36.80 (2245.67)	500 x 320 x 230 (19.68 x 12.60 x 9.06)	**NJBEP503223NP24**

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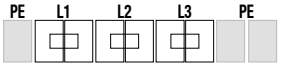
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NJBEP503215AP24

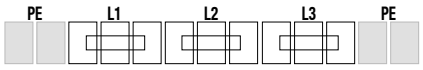
Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *10 mm² to 70 mm² terminals and earth terminals, Rating 160 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (1PE + 2L1 + 2L2 + 2L3 + 2PE)						
NJBEP503215	4 x M40 with earth continuity device		9.30 (20.50)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215AP21**
NJBEP503215	4 x M40 with four cable glands for unarmored cable – diameter 24 to 34 mm (0.94 to 1.34 in)		9.30 (20.50)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215NP21**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *10 mm² to 70 mm² terminals and earth terminals, Rating 140 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP (2PE + 3L1 + 3L2 + 3L3 + 2PE)						
NJBEP503215	6 x M40 with earth continuity device		9.30 (20.50)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215AP22**
NJBEP503215	6 x M40 with six cable glands for unarmored cable – diameter 24 to 34 mm (0.94 to 1.34 in)		9.30 (20.50)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215NP22**

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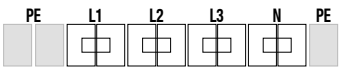
NBR IEC:
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NJBEP503215AP24

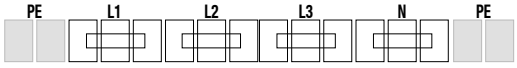
Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *10 mm² to 70 mm² terminals and earth terminals, Rating 150 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 2L1 + 2L2 + 2L3 + 2N + PE)						
NJBEP503215	4 x M40 with earth continuity device		9.30 (20.50)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215AP23**
NJBEP503215	4 x M40 with four cable glands for unarmored cable – diameter 24 to 34 mm (0.94 to 1.34 in)		9.30 (20.50)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215NP23**

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Terminals and Earth Stud

- *10 mm² to 70 mm² terminals and earth terminals, Rating 125 Amps, 550 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
Configuration: TP + N (2PE + 3L1 + 3L2 + 3L3 + 3N + 2PE)						
NJBEP503215	6 x M40 with earth continuity device		9.30 (20.50)	24.00 (1464.57)	500 x 320 x 150 (19.68 x 12.60 x 5.91)	**NJBEP503215AP24**
NJBEP503223	6 x M50 with six cable glands for unarmored cable – diameter 28 to 42 mm (1.10 to 1.65 in)		10.30 (22.70)	36.80 (2245.67)	500 x 320 x 230 (19.68 x 12.60 x 9.06)	**NJBEP503223NP24**

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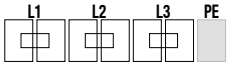
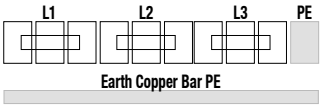
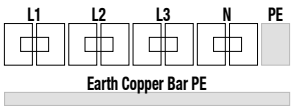
Increased Safety. Factory Drilled and Equipped

Maximum Capacity Per Terminal: 120 mm²

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Screw Terminals, Earth Bar and Earth Stud

- *10 mm² to 120 mm² terminals and earth copper bar, Rating 200 Amps, 690 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Terminal Jumped Catalog Number
						
Configuration: TP (2L1 + 2L2 + 2L3 + 1PE)						
NJBEP753223	4 x M50 with earth continuity device		10.80 (23.80)	55.20 (3368.51)	750 x 320 x 230 (29.53 x 12.60 x 9.06)	**NJBEP753223AP01**
NJBEP753215	4 x M50 with four cable glands for unarmored cable – diameter 28 to 42 mm (1.10 to 1.65 in)		9.75 (21.50)	36.00 (2196.85)	750 x 320 x 150 (29.53 x 12.60 x 5.91)	**NJBEP753215NP01**
						
Configuration: TP (3L1 + 3L2 + 3L3 + 1PE)						
NJBEP753223	6 x M50 with earth continuity device		10.80 (23.80)	55.20 (3368.51)	750 x 320 x 230 (29.53 x 12.60 x 9.06)	**NJBEP753223AP02**
NJBEP753223	6 x M50 with six cable glands for unarmored cable – diameter 28 to 42 mm (1.10 to 1.65 in)		10.80 (23.80)	55.20 (3368.51)	750 x 320 x 230 (29.53 x 12.60 x 9.06)	**NJBEP753223NP02**
						
Configuration: TP + N (2L1 + 2L2 + 2L3 + 2N + 1PE)						
NJBEP753223	4 x M50 with earth continuity device		10.80 (23.80)	55.20 (3368.51)	750 x 320 x 230 (29.53 x 12.60 x 9.06)	**NJBEP753223AP03**
NJBEP753215	4 x M50 with four cable glands for unarmored cable – diameter 28 to 42 mm (1.10 to 1.65 in)		9.75 (21.50)	36.00 (2196.85)	750 x 320 x 150 (29.53 x 12.60 x 5.91)	**NJBEP753215NP03**

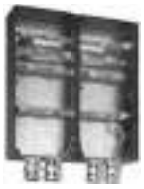
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A.T.X.® NJBEP Series FRP Terminal Junction Boxes for Electrical/Power Applications

Increased Safety. Factory Drilled and Equipped

Maximum Capacity Per Terminal: 240 mm²

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10



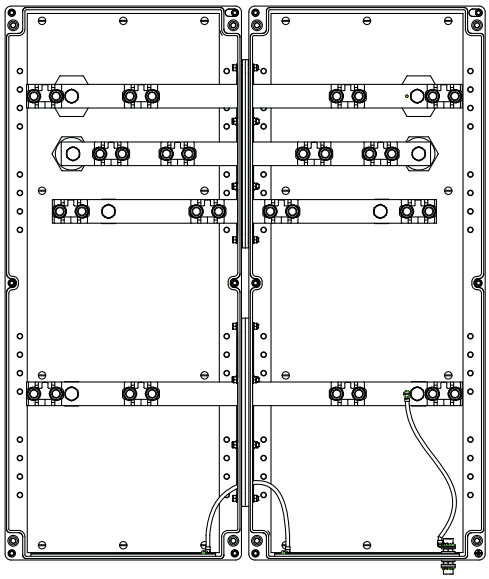
NJBEP753215AP72

Ex eb IIC Factory Drilled NJBEP Polyester Junction Boxes Equipped with Clamping Terminals and Earth Stud

- *35/240 mm² clamping terminals on a bus bar and earth terminal (Earth Bus), Rating 400 Amps, 1100 Volts*

Enclosure Type	Equipment	Entry Layout	Weight kg (lb)	Volume dm³ (in³)	Dimensions – mm (in)	Standard Bus Bar Catalog Number
Configuration: (L1 + L2 + L3 + PE All Copper Bars)					L1 L2 L3 PE	
2 x NJBEP753215	3 x M50 with earth continuity device, 3 Clamping terminals per bar		40.50 (89.30)	73.13 (4462.36)	750 x 650 x 150 (29.53 x 25.59 x 5.91)	**NJBEP753215AP61**
2 x NJBEP753215	4 x M50 with earth continuity device, 4 Clamping terminals per bar		40.50 (89.30)	73.13 (4462.36)	750 x 650 x 150 (29.53 x 25.59 x 5.91)	**NJBEP753215AP62**
2 x NJBEP753215	3 x M63 with earth continuity device, 3 Clamping terminals per bar		40.50 (89.30)	73.13 (4462.36)	750 x 650 x 150 (29.53 x 25.59 x 5.91)	**NJBEP753215AP71**
2 x NJBEP753215	4 x M63 with earth continuity device, 4 Clamping terminals per bar		40.50 (89.30)	73.13 (4462.36)	750 x 650 x 150 (29.53 x 25.59 x 5.91)	**NJBEP753215AP72**

Example of Two NJBEP753215 Enclosures Coupled

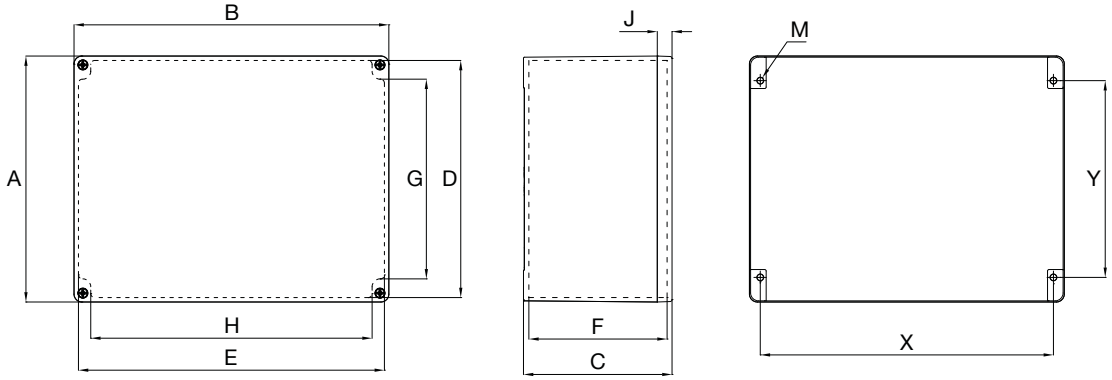


Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Electrical and Power Applications

Increased Safety. Factory Drilled and Equipped

Dimensions in Millimeters (Inches) ①



Enclosure Catalog Number	External Dimension A	B	C	Internal Dimensions D	E	F	G	H	Cover J	Body Thickness	Wall Fixing X	Y	M ②
NJBEP0808060	85 (3.346)	85 (3.346)	61 (2.402)	76.7 (3.020)	76.7 (3.020)	47 (1.850)	41 (1.614)	51 (2.008)	15 (0.591)	3.5 (0.138)	69 (2.717)	49 (1.929)	M4
NJBEP1212090	120 (4.724)	120 (4.724)	91 (3.583)	109.5 (4.311)	109.5 (4.311)	75 (2.953)	63 (4.528)	85 (3.346)	40 (1.575)	4.5 (0.177)	103 (4.055)	83 (3.268)	M5
NJBEP121209S0	120 (4.724)	120 (4.724)	91 (3.583)	108.6 (4.276)	108.6 (4.276)	75 (2.953)	63 (4.528)	85 (3.346)	15 (0.591)	4.5 (0.177)	103 (4.055)	83 (3.268)	M5
NJBEP1717090	170 (6.693)	170 (6.693)	91 (3.583)	158.5 (6.240)	158.5 (6.240)	72 (2.835)	112.5 (4.429)	137 (5.394)	15 (0.591)	4.5 (0.177)	153 (6.024)	131 (5.157)	M5
NJBEP2021100	200 (7.874)	215 (8.465)	95 (3.740)	185.8 (7.315)	200.8 (7.906)	76 (2.992)	116 (4.567)	159 (6.260)	20 (0.787)	6.1 (0.240)	189 (7.441)	146 (5.748)	M6
NJBEP2021150	200 (7.874)	215 (8.465)	145 (5.709)	185.8 (7.315)	200.8 (7.906)	122.5 (4.823)	114.8 (4.519)	159 (6.260)	20 (0.787)	6.1 (0.240)	189 (7.441)	146 (5.748)	M6
NJBEP2532150	250 (9.843)	320 (12.598)	150 (5.906)	241 (9.488)	311 (12.244)	133.5 (5.256)	171 (6.732)	267 (10.512)	15 (0.591)	5 (0.197)	200 (7.874)	298 (11.732)	M6
NJBEP3225150	320 (12.598)	250 (9.843)	150 (5.906)	311 (12.244)	241 (9.488)	133.5 (5.256)	267 (10.512)	171 (6.732)	15 (0.591)	5 (0.197)	298 (11.732)	200 (7.874)	M6
NJBEP3250150	320 (12.598)	500 (19.685)	150 (5.906)	311 (12.244)	491 (19.331)	133.5 (5.256)	267 (10.512)	421 (16.575)	15 (0.591)	5 (0.197)	298 (11.732)	447 (17.598)	M6
NJBEP3250230	320 (12.598)	500 (19.685)	230 (9.055)	311 (12.244)	491 (19.331)	213.5 (8.406)	267 (10.512)	421 (16.575)	15 (0.591)	5 (0.197)	298 (11.732)	447 (17.598)	M6
NJBEP3275150	320 (12.598)	750 (29.528)	150 (5.906)	311 (12.244)	741 (29.173)	133.5 (5.256)	267 (10.512)	671 (26.417)	15 (0.591)	5 (0.197)	298 (11.732)	698 (27.480)	M6
NJBEP3275230	320 (12.598)	750 (29.528)	230 (9.055)	311 (12.244)	741 (29.173)	213.5 (8.406)	267 (10.512)	671 (26.417)	15 (0.591)	5 (0.197)	298 (11.732)	698 (27.480)	M6

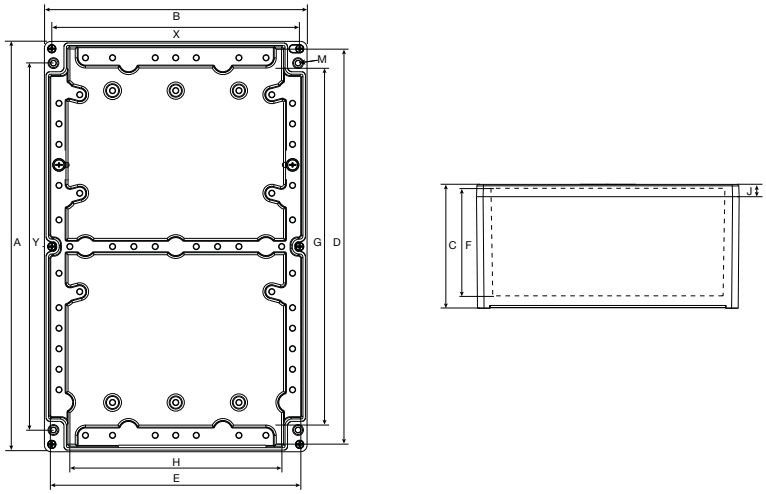
① Wall fixing screw diameter 5 mm (0.20"). Wall fixing screw hole 6 mm (0.24").
② Screw to be used for mounting box.

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A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Electrical and Power Applications

Increased Safety. Factory Drilled and Equipped

Dimensions in Millimeters (Inches) ①



Enclosure Catalog Number	External Dimension A	B	C	Internal Dimensions D	E	F	G	H	Cover J	Body Thickness	Wall Fixing X	Y	M ②
NJBEP5032150	500 (19.685)	320 (12.598)	150 (5.906)	491 (19.331)	311 (12.244)	133.5 (5.256)	421 (16.575	267 (10.512)	15 (0.591)	5 (0.197)	447 (17.598)	298 (11.732)	M6
NJBEP5032230	500 (19.685)	320 (12.598)	230 (9.055)	491 (19.331)	311 (12.244)	213.5 (8.406)	421 (16.575	267 (10.512)	15 (0.591)	5 (0.197)	447 (17.598)	298 (11.732)	M6
NJBEP7532150	750 (29.528)	320 (12.598)	150 (5.906)	741 (29.173)	311 (12.244)	133.5 (5.256)	671 (26.417	267 (10.512)	15 (0.591)	5 (0.197)	298 (11.732)	698 (27.480)	M6
NJBEP7532230	750 (29.528)	320 (12.598)	230 (9.055)	741 (29.173)	311 (12.244)	213.5 (8.406)	671 (26.417)	267 (10.512)	15 (0.591)	5 (0.197)	698 (27.480)	298 (11.732)	M6

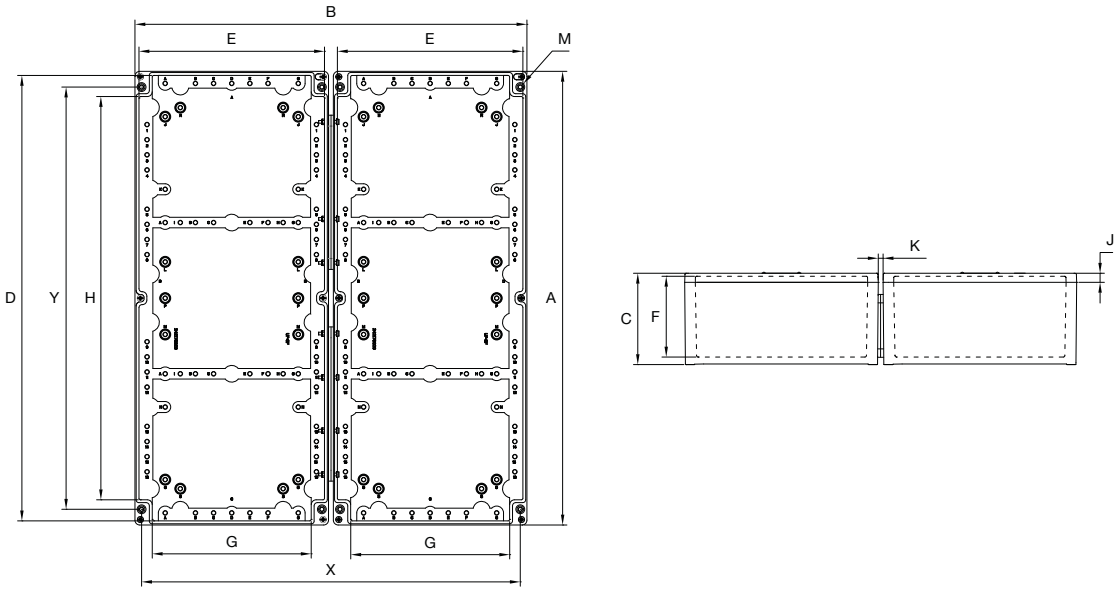
① Wall fixing screw diameter 5 mm (0.20"). Wall fixing screw hole 6 mm (0.24").
② Screw to be used for mounting box.

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A.T.X.® NJBEP Series Fiberglass Reinforced Polyester Terminal Junction Boxes for Electrical and Power Applications

Increased Safety. Factory Drilled and Equipped

Dimensions in Millimeters (Inches) ①



Enclosure Catalog Number	External Dimension A	B	C	D	Internal Dimensions E (x2)	F	G (x2)	H	Cover J	Body Thickness	Wall Fixing X	Y	M ②
2 X NJBEP7532150	750 (29.528)	648 (25.512)	150 (5.906)	741 (29.173)	311 (12.244)	133.5 (5.256)	267 (10.512)	671 (26.417)	8 (0.315)	15 (0.591)	5 (0.197)	626 (24.646)	698 (27.480)	M6

① *Wall fixing screw diameter 5 mm (0.20"). Wall fixing screw hole 6 mm (0.24").*
② *Screw to be used for mounting box.*

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A.T.X.® JBES Series Pre–Drilled 316L Stainless Steel Junction Boxes

Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb/Ex de II Gb/Ex eia ou eib IIC Gb/ Ex tb IIIC Db
IP66 - IK10

Applications

- Terminal junction boxes designed to facilitate electrical connections in hazardous areas.
- Designed for use in Zone 1 or 2 areas, where flammable gases or vapors are present either continuously or intermittently such as:
  — Petroleum
  — Chemical
  — Refineries
  — Other industrial process facilities
- Ideal for wet or corrosive atmospheres.
- Designed for use in Zone 21 or 22 areas, where flammable dusts are present either continuously or intermittently, such as:
  — Food processing
  — Dairy
  — Brewing
  — Pharmaceutical industry
  — Silos and other facilities

Features

- Smooth, continuously welded seams.
- Hinges supplied on all boxes from 370 mm x 260 mm (14.57" x 10.24") sizes.
- Poured-in-place polyurethane door gasket.
- Earth crossing terminal.
- Factory drilled and equipped.

Standard Material

- Enclosure: 316L chrome plated molybdenum stainless steel with natural burnished finish
- Hardware: 316L stainless steel

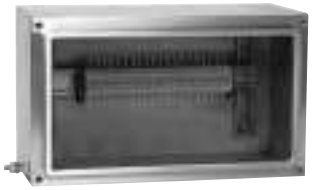
Options

- For use with equipment other than Ex terminal blocks, see ECES series enclosures and controls.

JBe10 — Without Terminals



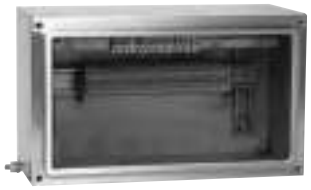
JBe46 — Equipped with Terminals



JBe46 — Equipped with Terminals



JBe46 — Equipped with Terminals



ATEX/IECEx Certifications and Compliances

- Certification Type JBe
  — Gas, Zones 1 and 2
    – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    – ATEX/IEC Protection: Ex e II, Ex ia IIC, Ex ib IIC,
    – T Rating: T6 to T5
  — Dust, Zones 21 and 22
    – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    – ATEX/IEC Protection: Ex tD A21
    – Surface Temperature: T80 °C to T95 °C (T176 °F to T203 °F)
  — Ambient Temperature: -50 °C to +70 °C (-58 °F to +158 °F)
  — CE Declaration of Conformity: 50232
  — ATEX Certificate: LCIE 02 ATEX 6118X
  — IECEx Certificate: IECEx LCI 11.0008X
- Other Certifications: GOST R
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Ex Standards: EN/IEC 60079-0; 60079-1; 60079-11, 61241-0; 61241-1; 61241-11
- Other Standards: EN/IEC 60529 (IP), 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type JBe
  — Gas, Zones 1 and 2
    – IEC Marking: Ex e II Gb, Ex eia ou eib IIC Gb/ Ex de II Gb
    – T Rating: T6 to T5
  — Dust, Zones 21 and 22
    – IEC Marking: Ex tb IIIC Db
    – Surface Temperature: T80 °C to T95 °C (T176 °F to T203 °F)
  — Ambient Temperature: -50 °C to +70 °C (-58 °F to +158 °F)
  — INMETRO Certificate: BVC 11.0418-X
- INMETRO Ordinance: 179
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-7; 60079-11; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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A.T.X.® JBES Series Pre–Drilled 316L Stainless Steel Junction Boxes

Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
II 2 GD
IP66 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb/Ex de II Gb/Ex eia ou eib IIC Gb/
Ex tb IIIC Db
IP66 - IK10

Catalog Numbering Guide - JBES Pre-Drilled Stainless Steel Junction Boxes

JBES **12** **12** **09** **0** **0**

Series:
JBES - ATEX/IECEx Certified Increased Safety
JBIS - ATEX/IECEx Certified Intrinsic Safety,

NJBES - NBR IEC Certified Increased Safety
NJBIS - NBR IEC Certified Intrinsic Safety,

Length Dimensions mm (in):
12 - 120 (4.72)
18 - 180 (7.09)
22 - 220 (8.66)
26 - 260 (10.24)
37 - 370 (14.57)

Width Dimensions mm (in):
12 - 120 (4.72)
18 - 180 (7.09)
22 - 220 (8.66)
26 - 260 (10.24)
37 - 370 (14.57)

Depth Dimensions mm (in):
09 - 95 (3.74)
15 - 150 (5.91)
20 - 200 (7.87)

Gland plate:
0 - None
1 - One Bottom
2 - One Top and Bottom
3 - Two Sides and Bottom
4 - All Sides

Options: ①
(options must be listed alphabetically)
D1 - 5 x M20
D2 - 4 x M20 + 1 x M25
D3 - 7 x M20 + 1 x M25
F1 - Fitted with 12 x 2.5 mm^2 (0.019 x 0.004 in^2) Terminals and Drilled
F2 - Fitted with 20 x 2.5 mm^2 (0.031 x 0.004 in^2) Terminals and Drilled
F3 - Fitted with 40 x 2.5 mm^2 (0.062 x 0.004 in^2) Terminals and Drilled
F4 - Fitted with 60 x 2.5 mm^2 (0.093 x 0.004 in^2) Terminals and Drilled
F5 - Fitted with 14 x 2.5 mm^2 (0.022 x 0.004 in^2) Terminals and Drilled
F6 - Fitted with 24 x 2.5 mm^2 (0.037 x 0.004 in^2) Terminals and Drilled
F7 - Fitted with 38 x 2.5 mm^2 (0.057 x 0.004 in^2) Terminals and Drilled
F8 - Fitted with 54 x 2.5 mm^2 (0.084 x 0.004 in^2) Terminals and Drilled
- Customized Enclosure *(6 Digit number will be assigned at time of order placement.)*

Maximum Rail Arrangement According to Physical Dimensions

Type	Protection	Terminal Size mm^2 (in^2)	Quantity	Max. Amps
JBe10	T6 @ Ta = +55° C (+131 °F)	2.5 (0.004)	10	16A
		4.0 (0.006)	8	25A
		6.0 (0.009)	6	32A
JBe20	T6 @ Ta = +55° C (+131 °F)	2.5 (0.004)	21	16A
		4.0 (0.006)	18	25A
		6.0 (0.009)	13	32A

① *For other terminal block configurations, consult our drilling guide available online at our website www.appletonelec.com.*

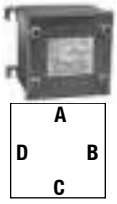
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A.T.X.® JBES Series Pre–Drilled 316L Stainless Steel Junction Boxes

Increased Safety

ATEX/IECEx:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb/Ex de II Gb/Ex eia ou eib IIC Gb/ Ex tb IIIC Db
IP66 - IK10

Type	Dimensions L x W x D mm (in)	Rail Length Capacity mm (in)	Clearance Holes Per Side A	B	C	D	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	NBR
Factory Drilled Ex e II 316L Stainless Steel Junction Boxes Fitted with: *One horizontal symmetrical zinc plated rail. For use only with Ex terminals (not supplied). M6 external earth crossing terminal.*										
 JBe10	120 x 120 x 95 (4.72 x 4.72 x 3.74)	100 (3.94)	1 x M20	1 x M20	2 x M20	1 x M20	1.0 (2.20)	1.4 (85.43)	**JBES1212090D1**	**NJBES1212090D1**
JBe20	120 x 120 x 95 (4.72 x 4.72 x 3.74)	160 (6.30)	–	1 x M20	2 x M20 1 x M25	1 x M20	1.5 (3.31)	2.0 (122.05)	**JBES1218090D2**	**NJBES1218090D2**
JBe20	120 x 120 x 95 (4.72 x 4.72 x 3.74)	160 (6.30)	–	2 x M20	3 x M20 1 x M25	2 x M20	1.5 (3.31)	2.0 (122.05)	**JBES1218090D3**	**NJBES1218090D3**

Type	Dimensions L x W x D mm (in)	Terminals 2.5 mm² (0.0039 in²)	Insulated Connectors	Clearance Holes Per Side B	C	D	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	NBR
Factory Drilled and Equipped with Terminals Ex e II 316L Stainless Steel Instrumentation Junction Boxes Fitted with: *Vertical beige Exe terminal block. Insulated copper bar with connectors. White laminated plastic tag with black lettering. M8 external earth crossing terminal. Cable glands and plugs to be ordered separately.*										
 JBe20	180 x 120 x 95 (7.09 x 4.72 x 3.74)	12 (6 Pairs)	8	3 x M20	1 x M25 1 x M20	3 x M20	2.5 (5.51)	2.0 (122.05)	**JBES1812090F1**	**NJBES1812090F1**
JBe36	260 x 220 x 150 (10.24 x 8.66 x 5.91)	20 (10 Pairs)	12	5 x M20	1 x M32 1 x M20	5 x M20	4.0 (8.82)	8.6 524.80)	**JBES2622150F2**	**NJBES2622150F2**
JBe46	370 x 220 x 200 (14.57 x 8.66 x 7.87)	40 (20 Pairs)	22	10 x M20	1 x M40 1 x M20	10 x M20	9.0 (19.84)	16.3 (994.69)	**JBES372220F3**	**JBES372220F3**
JBe47	370 x 260 x 200 (14.57 x 10.24 x 7.87)	60 (30 pairs)	32	15 x M20	1 x M50 1 x M20	15 x M20	24.25 (11.0)	19.3 (1177.76)	**JBES3726200F4**	**NJBES3726200F4**
Ex ia IIC Version: Replace Third Digit "E" with "I" (Example: JBES1812090F1 becomes JBIS1812090F1) Fitted with: *Vertical blue terminal block. Insulated copper bar with connectors. Blue laminated plastic tag with white lettering. M8 external earth crossing terminal. Cable glands and plugs to be ordered separately.*										

Type	Dimensions L x W x D mm (in)	Terminals 2.5 mm² (0.0039 in²)	Continuity Shield	Clearance Holes Per Side C	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	NBR
Factory Drilled and Equipped with Terminals Ex e II 316L Stainless Steel Instrumentation Junction Boxes Fitted with: *Horizontal beige Exe terminal block. Continuity shield. White laminated plastic tag with black lettering. M8 External earth crossing terminal. Cable glands and plugs to be ordered separately.*								
 JBe36	220 x 260 x 150 (8.66 x 10.24 x 5.91)	14 (7 Pairs)	7	1 x M25 7 x M20	4.0 (8.82)	8.6 (524.80)	**JBES2226150F5**	**NJBES2226150F5**
JBe36	220 x 260 x 150 (8.66 x 10.24 x 5.91)	24 (12 pairs)	12	1 x M32 12 x M20	4.0 (8.82)	8.6 (524.80)	**JBES2226150F6**	**NJBES2226150F6**
JBe46	220 x 370 x 200 (8.66 x 14.57 x 7.87)	38 (19 pairs)	19	1 x M32 19 x M20	9.0 (19.84)	16.3 (994.69)	**JBES2237200F7**	**NJBES2237200F7**
JBe46	220 x 370 x 200 (8.66 x 14.57 x 7.87)	54 (27 pairs)	27	1 x M40 27 x M20	9.0 (19.84)	16.3 (994.69)	**JBES2237200F8**	**NJBES2237200F8**
Ex ia IIC Version: Replace Third Digit "E" with "I" (Example: JBES2226150F5 becomes JBIS2226150F5) Fitted with: *Horizontal blue terminal block. Continuity shield. Blue laminated plastic tag with white lettering. M8 external earth crossing terminal. Cable glands and plugs to be ordered separately.*								

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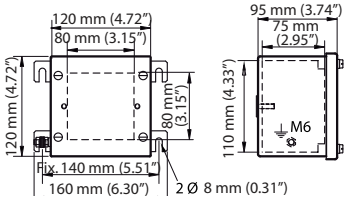
A.T.X.® JBES Series Pre–Drilled 316L Stainless Steel Junction Box Dimensions

Increased Safety

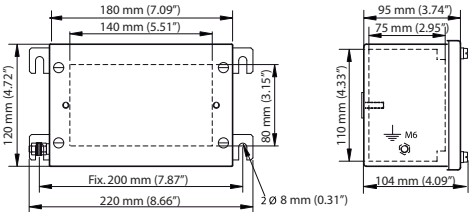
Dimensions in Millimeters (Inches)

Factory Drilled without Terminal Block (DIN rail supplied)

JBe10

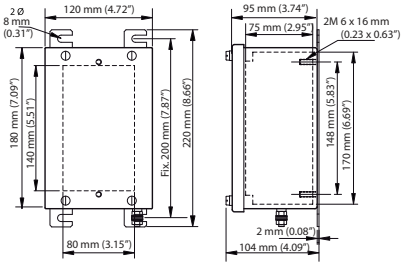


JBe20

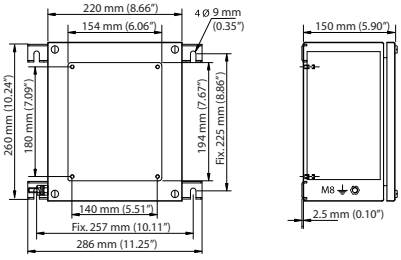


Factory Drilled and Equipped with Vertical Terminal Block

JBe20

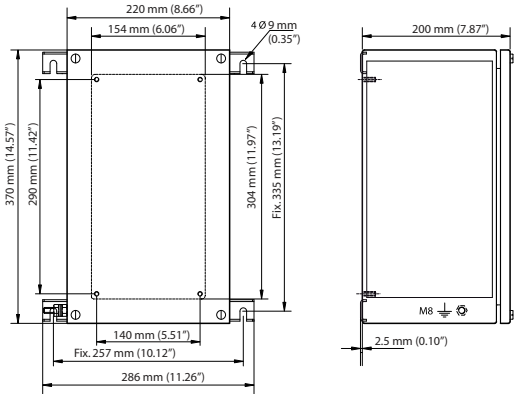


JBe36

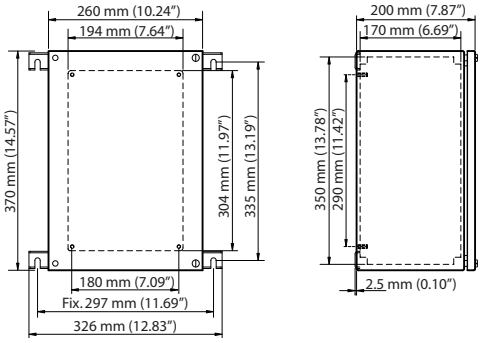


Factory Drilled and Equipped with Vertical Terminal Block

JBe46

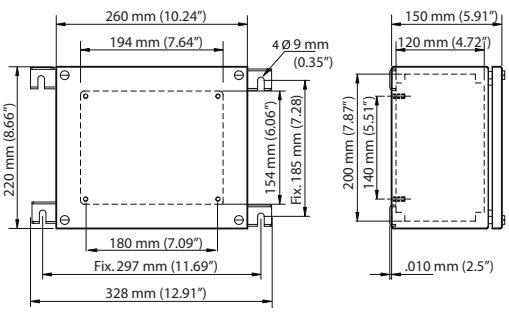


JBe47

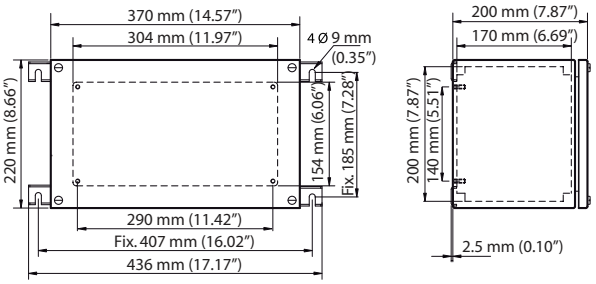


Factory Drilled and Equipped with Horizontal Terminal Block

JBe36



JBe46



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A.T.X.® JBES and ECES Series 316L Stainless Steel Enclosures

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Applications

- Designed for use in Zone 1 or 2 areas where flammable gases or vapors are present either continuously or intermittently.
- Ideal for use in wet or corrosive atmospheres such as:
  — Petroleum
  — Chemical
  — Refineries
  — Other industrial process facilities
- Designed for use in Zone 21 or 22 areas where flammable dusts are present either continuously or intermittently such as:
  — Food processing
  — Dairy
  — Brewing
  — Pharmaceutical industry
  — Other commercial facilities
- JBES Series
  — Terminal junction box for electrical low voltage and instrumentation connections for use in hazardous areas.
  — Refer to technical data to define permitted number of terminal blocks and cable entries on selected junction boxes.
- ECES Series
  — Enclosure for distribution and control applications must be customized at our workshop to house a large range of components such as control units, switches, breakers, transformers, meters, etc.

Features

- Smooth, continuously welded seams.
- Available in a wide range of sizes.
- Operating temperature:
  – JBES Series: -50 °C to +70 °C (-58 °F to +158 °F)
  – ECES Series: -50 °C to +55 °C (-58 °F to +131 °F)
- Can be supplied with 1, 2, 3 or even 4 neoprene sealed gland plates for ease of cable installation.
- Hinges standard on all sizes above 370.0 mm x 260.0 mm (14.57" x 10.24").
- Poured-in-place polyurethane door gasket.
- Feed-thru earth grounding stud.
- Reversible door, opens 210 degrees, from any location top; bottom, left or right, by means of removable hinges that can be installed in any position.
- Reversible anti-vibration mounting brackets can be mounted on the top, bottom or side positions.
- Optional removable padlocking device.

Standard Materials

- Enclosure: 316L chrome plated stainless steel
- Hardware: 316L stainless steel

Standard Finishes

- Natural brushed finish

Accessories

- Mounting pan
- Rail mounting
- Padlocking device
- Door locking bracket for easy access
- Inside pocket
- Refer to technical data to define permitted number of terminals and cable entries acceptance

Options

- Removable gland plates.
- Nameplate.

JBES Series **ECES Series**




Closed




Open

- Factory drilled and assembled, contact your local representative for information.
- Medium voltage application (11 kV max.), contact your local representative for information.
- Intrinsic safety version (JBIS) available with the use of intrinsic terminals.
- CSA and cUL certified terminal junction box available. Contact your local representative for information.

ATEX/IECEx Certifications and Compliances

- Certification Type JBe
  — Gas, Zones 1 and 2
    – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    – ATEX/IEC Protection: Ex e II, Ex ia IIC, Ex ib IIC, Ex de IIC, Ex demb IIC
    – T Rating: T6 to T4
  — Dust, Zones 21 and 22
    – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    – ATEX/IEC Protection: Ex tD A21
    – Surface Temperature: T80 °C to T130 °C (T176 °F to T266 °F)
  — Ambient Temperature: -50 °C to +70 °C (-58 °F to +158 °F)
  — CE Declaration of Conformity: 50232
  — IECEx Certificate: IECEx LCI 11.0008X
  — ATEX Certificate : LCIE 02 ATEX 6118X
  — Other Certifications: GOST R
- Certification Type JBe U
  — Gas, Zones 1 and 2
    – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    – ATEX/IEC Protection: Ex e II
  — Dust, Zones 21 and 22
    – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    – ATEX/IEC Protection: Ex tD A21
  — Ambient Temperature: -50 °C to +70 °C (-58 °F to 158 °F)
  — CE Declaration of Conformity: 5C240
  — ATEX Certificate: LCIE 09 ATEX 3025U
  — IEC Certificate: LCIE Ex 09.001U
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Ex Standards: EN/IEC 60079-0; 60079-1; 60079-7; 60079-11, 61241-0; 61241-1; 61241-11
- Other Standards: EN/IEC 60529 (IP), 62262 (IK)

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A.T.X.® JBES and ECES Series 316L Stainless Steel Enclosures

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

NBR IEC Brazilian Certifications and Compliances ①

- Certification Type JBe
  - — Gas, Zones 1 and 2
    - – IEC Marking: Ex e II Gb, Ex de II Gb, Ex eia ou eib IIC Gb
    - – T Rating: T6 to T5
  - — Dust, Zones 21 and 22
    - – IEC Marking: Ex tb IIIC Db
    - – Surface Temperature: T80 °C to T95 °C (T176 °F to T203 °F)
  - — Ambient Temperature: -40 °C to +70 °C (-58 °F to +158 °F)
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 11.0418-X
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-7; 60079-11; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Illustrated Features



Optional removable locking device. Part Number 097209/N097209



Reversible antivibration mounting brackets, can be mounted in top, side or bottom positions.



M8 feed–thru earth/ground terminal.



Polyurethane poured in place door gasket and stainless steel captive screws.



Reversible door. Opens to 210°, top, bottom, left or right, by moving the location of the hinges



Optional removable gland plate.

① *For NBR IEC governed locations junction boxes cannot be field drilled; field drilling a product nulls both the product's certifications and the warranty.*

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A.T.X.® JBES and ECES Series 316L Stainless Steel Enclosures

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Catalog Numbering Guide — JBES and ECES 316L Stainless Steel Enclosures ①

JB | **E** | **S** | **12** | **12** | **09** | **0** | **M**

JB
Series:
EC - ATEX/IECEx Certified Enclosure and Controls
JB - ATEX/IECEx Certified Junction Box
NEC - NBR IEC Certified Enclosure and Controls
NJB - NBR IEC Certified Junction Box

E
Protection Method:
E - Increased Safety
I - Intrinsic Safety

S
Material:
S - Stainless Steel

12
Length Dimensions mm (in):
12 - 120 (4.72)
18 - 180 (7.09)
22 - 220 (8.66)
26 - 260 (10.24)
37 - 370 (14.57)
56 - 560 (22.05)
75 - 750 (29.53)
11 - 1130 (44.49)

12
Width Dimensions mm (in):
12 - 120 (4.72)
18 - 180 (7.09)
22 - 220 (8.66)
26 - 260 (10.24)
37 - 370 (14.57)
56 - 560 (22.05)
75 - 750 (29.53)

09
Depth Dimensions mm (in):
09 - 91 (3.58)
15 - 150 (5.91)
20 - 200 (7.87)
30 - 300 (11.81)

0
Gland plate:
0 - None
1 - One Bottom
2 - One Top and Bottom
3 - Two Sides and Bottom
4 - All Sides

M
Options:
(options must be listed alphabetically)
M - Mounting Pan
U - Component Certification "U"
- Customized Enclosure *(6 Digit number will be assigned at time of order placement.)*

① For NBR IEC governed locations junction boxes cannot be field drilled; field drilling a product nulls both the product's certifications and the warranty.

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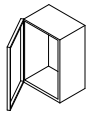
A.T.X.® JBES and ECES Series 316L Stainless Steel Enclosures

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

JBES Series

	Type	Dimensions L x W x D mm (in)	Hinged Door ②	Vertical Orientation Rail Length mm (in)	Horizontal Orientation Rail Length mm (in)	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR ③
Ex e II 316L Stainless Steel Junction Boxes without Gland Plate									
For use only with Ex terminals (not supplied). External earth crossing terminal. (M6 for JBe10/20/30 and M8 for other boxes). Mounting pan and rails to be ordered separately.									
	JBe10	120 x 120 x 95 (4.72 x 4.72 x 3.74)	N	–	100 (3.94)	1.0 (2.20)	1.4 (85.43)	**JBES1212090_**	**NJBES1212090_**
	JBe20	120 x 180 x 95 (4.72 x 7.09 x 3.74)	N	–	160 (6.30)	1.5 (3.31)	2.0 (122.05)	**JBES1218090_**	**NJBES1218090_**
	JBe30	180 x 180 x 95 (7.09 x 7.09 x 3.74)	N	–	160 (6.30)	1.8 (3.97)	3.0 (183.07)	**JBES1818090_**	**NJBES1818090_**
	JBe36	220 x 260 x 150 (8.66 x 10.24 x 5.91)	R	170 (6.69)	210 (8.27)	5.0 (11.02)	8.6 (524.80)	**JBES2226150_**	**NJBES2226150_**
	JBe36	260 x 220 x 150 (10.24 x 8.66 x 5.91)	R	210 (8.27)	170 (6.69)	5.0 (11.02)	8.6 (524.80)	**JBES2622150_**	**NJBES2622150_**
	JBe46	220 x 370 x 200 (8.66 x 14.57 x 7.87) ①	R	170 (6.69)	320 (12.60)	8.5 (18.74)	16.3 (994.69)	**JBES2237200_**	**NJBES2237200_**
	JBe47	260 x 370 x 200 (10.24 x 14.57 x 7.87) ①	Y	210 (8.27)	320 (12.60)	9.0 (19.84)	19.3 (1177.76)	**JBES2637200_**	**NJBES2637200_**
	JBe46	370 x 220 x 200 (14.57 x 8.66 x 7.87) ①	R	320 (12.60)	170 (6.69)	8.5 (18.74)	16.6 (1012.99)	**JBES3722200_**	**NJBES3722200_**
	JBe47	370 x 260 x 200 (14.57 x 10.24 x 7.87) ①	Y	320 (12.60)	210 (8.27)	9.0 (19.84)	19.3 (1177.76)	**JBES3726200_**	**NJBES3726200_**
	JBe55	370 x 370 x 200 (14.57 x 14.57 x 7.87) ①	Y	320 (12.60)	320 (12.60)	13.0 (28.66)	27.4 (1672.05)	**JBES3737200_**	**NJBES3737200_**
	JBe65	370 x 560 x 200 (14.57 x 22.05 x 7.87) ①	Y	320 (12.60)	510 (20.08)	19.0 (19.84)	41.5 (2532.49)	**JBES3756200_**	**NJBES3756200_**
	JBe75	370 x 750 x 200 (14.57 x 29.53 x 7.87) ①	Y	320 (12.60)	700 (27.56)	24.0 (52.91)	55.5 (3386.82)	**JBES3775200_**	**NJBES3775200_**
	JBe65	560 x 370 x 200 (22.05 x 14.57 x 7.87) ①	Y	510 (20.08)	320 (12.60)	19.0 (19.84)	41.5 (2532.49)	**JBES5637200_**	**NJBES5637200_**
	JBe77	560 x 560 x 200 (22.05 x 22.05 x 7.87) ①	Y	510 (20.08)	510 (20.08)	28.0 (61.73)	62.8 (3832.29)	**JBES5656200_**	**NJBES5656200_**
	JBe79	560 x 750 x 200 (22.05 x 29.53 x 7.87) ①	Y	510 (20.08)	700 (27.56)	33.0 (72.75)	84.0 (5125.99)	**JBES5675200_**	**NJBES5675200_**
	JBe75	750 x 370 x 200 (29.53 x 14.57 x 7.87) ①	Y	700 (27.56)	320 (12.60)	24.0 (52.91)	55.5 (3386.82)	**JBES7537200_**	**NJBES7537200_**
	JBe79	750 x 560 x 200 (29.53 x 22.05 x 7.87) ①	Y	700 (27.56)	510 (20.08)	33.0 (72.75)	84.0 (5125.99)	**JBES7556200_**	**NJBES7556200_**
	JBe86	1130 x 750 x 300 (44.49 x 29.53 x 11.81)	Y	1080 (42.52)	700 (27.56)	50.0 (110.23)	235.0 (14340.58)	**JBES1175300_**	**NJBES1175300_**

*① 200 mm (7.87") depth enclosure available with 300 mm (11.81") depth – replace digit **2** with **3** – Example: JBES3737**3**04.*
② N: Not Available, R: On request or separate accessories, Y: Supplied.
③ For NBR IEC governed locations junction boxes cannot be field drilled; field drilling a product nulls both the product's certifications and the warranty.

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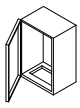
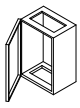
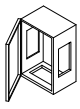
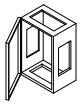
A.T.X.® JBES and ECES Series 316L Stainless Steel Enclosures

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

JBES Series

	Type	Dimensions L x W x D mm (in)	Hinged Door ②	One Gland Plate Catalog Number	Two Gland Plates Catalog Number	Three Gland Plate Catalog Number	Four Gland Plates Catalog Number
Ex e II 316L Stainless Steel Terminal Junction Boxes with Gland Plates 3 mm (0.12") Thick							
For use only with Ex terminals (not supplied). M8 External earth crossing terminal. Mounting pan and rails to be ordered separately.							
	JBe36	220 x 260 x 150 (8.66 x 10.24 x 5.91)	R	**JBES2226151_**	**JBES2226152_**	**JBES2226153_**	**JBES2226154_**
	JBe36	220 x 260 x 150 (8.66 x 10.24 x 5.91)	R	**JBES2622151_**	**JBES2622152_**	**JBES2622153_**	**JBES2622154_**
 **One Gland Plate**	JBe46	220 x 370 x 200 (8.66 x 14.57 x 7.87) ①	R	**JBES2237201_**	**JBES2237202_**	**JBES2237203_**	**JBES2237204_**
	JBe47	260 x 370 x 200 (10.24 x 14.57 x 7.87) ①	Y	**JBES2637201_**	**JBES2637202_**	**JBES2637203_**	**JBES2637204_**
	JBe46	370 x 220 x 200 (14.57 x 8.66 x 7.87) ①	R	**JBES3722201_**	**JBES3722202_**	**JBES3722203_**	**JBES3722204_**
 **Two Gland Plate**	JBe47	370 x 260 x 200 (14.57 x 10.24 x 7.87) ①	Y	**JBES3726201_**	**JBES3726202_**	**JBES3726203_**	**JBES3726204_**
	JBe55	370 x 370 x 200 (14.57 x 14.57 x 7.87) ①	Y	**JBES3737201_**	**JBES3737202_**	**JBES3737203_**	**JBES3737204_**
	JBe65	370 x 560 x 200 (14.57 x 22.05 x 7.87) ①	Y	**JBES3756201_**	**JBES3756202_**	**JBES3756203_**	**JBES3756204_**
 **Gland Plate Three**	JBe75	370 x 750 x 200 (14.57 x 29.53 x 7.87) ①	Y	**JBES3775201_**	**JBES3775202_**	**JBES3775203_**	**JBES3775204_**
	JBe65	560 x 370 x 200 (22.05 x 14.57 x 7.87) ①	Y	**JBES5637201_**	**JBES5637202_**	**JBES5637203_**	**JBES5637204_**
	JBe77	560 x 560 x 200 (22.05 x 22.05 x 7.87) ①	Y	**JBES5656201_**	**JBES5656202_**	**JBES5656203_**	**JBES5656204_**
 **Four Gland Plate**	JBe79	560 x 750 x 200 (22.05 x 29.53 x 7.87) ①	Y	**JBES5675201_**	**JBES5675202_**	**JBES5675203_**	**JBES5675204_**
	JBe75	750 x 370 x 200 (29.53 x 14.57 x 7.87) ①	Y	**JBES7537201_**	**JBES7537202_**	**JBES7537203_**	**JBES7537204_**
	JBe79	750 x 560 x 200 (29.53 x 22.05 x 7.87) ①	Y	**JBES7556201_**	**JBES7556202_**	**JBES7556203_**	**JBES7556204_**
	JBe86	1130 x 750 x 300 (44.49 x 29.53 x 11.81)	Y	**JBES1175301_**	**JBES1175302_**	**JBES1175303_**	**JBES1175304_**

*① 200 mm (7.87") depth enclosure available with 300 mm (11.81") depth – replace digit **2** with **3** – Example: JBES3737**3**04.*
② N: Not Available, R: On request or separate accessories, Y: Supplied.

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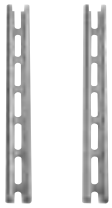
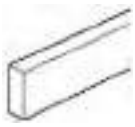
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ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Mounting Accessories

	Enclosure Length mm (in)	Rail Length mm (in)	Catalog Number Symmetrical Depth = 15 mm (0.59") IECEx	Symmetrical Depth = 15 mm (0.59") NBR	Asymmetrical IECEx	Asymmetrical NBR
 Symmetrical  Asymmetrical	**Zinc Plated Steel Rail** *For fixing onto uprights with clip nut supplied.*					
	120 (4.72)	100 (3.93)	**097246**	**N097246**	—	—
	180 (7.09)	160 (6.30)	**097247**	**N097247**	—	—
	220 (8.66)	170 (6.69)	**097240**	**N097240**	**097250**	**N097250**
	260 (10.24)	210 (8.27)	**097241**	**N097241**	**097251**	**N097251**
	370 (14.57)	320 (12.60)	**097242**	**N097242**	**097252**	**N097252**
	560 (22.05)	510 (20.08)	**097243**	**N097243**	**097253**	**N097253**
	750 (29.53)	700 (27.56)	**097244**	**N097244**	**097254**	**N097254**
	1130 (44.49)	1080 (42.52)	**097245**	**N097245**	**097255**	**N097255**

	Enclosure Length mm (in)	Bar Length mm (in)	Catalog Number IECEx	Catalog Number NBR
	**Zinc Plated Steel Uprights** *Set of two.*			
	220 (8.66)	160 (6.30)	**097230**	**N097230**
	260 (10.24)	200 (7.87)	**097231**	**N097231**
	370 (14.57)	310 (12.20)	**097232**	**N097232**
	560 (22.05)	500 (19.68)	**097233**	**N097233**
	750 (29.53)	690 (27.17)	**097234**	**N097234**
	1130 (44.49)	1070 (42.13)	**097235**	**N097235**
	**Copper Bar – 12 x 4 mm (0.47 x 0.16")** *Copper bar not perforated for cable clamps.*			
	220 (8.66)	160 (6.30)	**097270**	**N097270**
	260 (10.24)	200 (7.87)	**097271**	**N097271**
	370 (14.57)	310 (12.20)	**097272**	**N097272**
	560 (22.05)	500 (19.68)	**097273**	**N097273**
	750 (29.53)	690 (27.17)	**097274**	**N097274**
	1130 (44.49)	1070 (42.13)	**097275**	**N097275**
	**Cable Clamp for Copper Bar – 12 x 4 mm (0.47 x 0.16")**			
	1.5 mm^2 to 4 mm^2 (0.002 in^2 to 0.006 in^2) Capacity		**097203**	**N097203**
	6 mm^2 to 16 mm^2 Capacity (0.009 in^2 to 0.025 in^2)		**097204**	**N097204**

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Mounting Accessories - Continued:

	Enclosure Dimensions mm (in) Height	Width	Mounting Pan Dimensions mm (in)	Catalog Number IECEx	NBR
	Mounting Pan – Zinc Plated Steel				
	120 (4.72)	120 (4.72)	100 x 100 (3.93 x 3.93)	**097277**	**N097277**
	120 (4.72)	180 (7.09)	100 x 160 (3.93 x 6.30)	**097278**	**N097278**
	180 (7.09)	180 (7.09)	160 x 160 (6.30 x 6.30)	**097279**	**N097279**
	220 (8.66)	260 (10.24)	160 x 200 (6.30 x 7.87)	**097280**	**N097280**
	220 (8.66)	370 (14.57)	160 x 310 (6.30 x 12.20)	**097281**	**N097281**
	260 (10.24)	370 (14.57)	200 x 310 (7.87 x 12.20)	**097282**	**N097282**
	370 (14.57)	370 (14.57)	310 x 310 (12.20 x 21.20)	**097283**	**N097283**
	370 (14.57)	560 (22.05)	310 x 500 (12.20 x 19.68)	**097284**	**N097284**
	370 (14.57)	750 (29.53)	310 x 690 (12.20 x 27.17)	**097285**	**N097285**
	560 (22.05)	560 (22.05)	500 x 500 (19.68 x 19.68)	**097286**	**N097286**
	560 (22.05)	750 (29.53)	500 x 690 (19.68 x 27.17)	**097287**	**N097287**
	1130 (44.49)	750 (29.53)	690 x 1070 (27.17 x 42.13)	**097288**	**N097288**
	**Spacers for Mounting at Back of Box** *Set of two insulated pillars for copper bar 12 x 4 mm (0.47 x 0.16").*				
	Height = 100 mm (3.94")			**097206**	**N097206**
	Height = 50 mm (1.97")			**097207**	**N097207**
	**Conversion Kit — Door to Cover** *Must be used to remove hinges.*			**097202**	**N097202**
	**Spare Hinges**				
	Set of Two			**097201**	**N097201**
	**Spare Mounting Brackets — Set of Two**				
	One left and one right.			**097200**	**N097200**
	**Self Adhesive Pocket for Drawings**				
	External dimensions: 260 x 165 mm (10.24 x 6.50") Internal dimensions: 230 x 130 x 18 mm (9.06 x 5.12 x .071")			**097263**	**N097263**
	External dimensions: 340 x 235 mm (13.39 x 9.25") Internal dimensions: 310 x 200 x 18 mm (12.20 x 7.87 x 0.71")			**097264**	**N097264**
	**Additional Door Padlocking Device**				
	Padlock not supplied.			**097209**	**N097209**
	Locking Bracket				
	Locks door in open position during wiring			**097265**	**N097265**

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Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

Mounting Accessories - Continued:

	Dimensions mm (in)			Gland Plate/Coupling Flange Dimensions mm (in)	Catalog Number	
	Enclosure Width	Height			IECEx	NBR
	Spare Gland Plate					
	220 (8.66)	150 (5.91)	B/D	170 x 120 (6.69 x 4.72)	**JBESGP221B**	**NJBESGP221B**
	260 (10.24)	150 (5.91)	A/C	250 x 120 (9.84 x 4.72)	**JBESGP261A**	**NJBESGP261A**
	260 (10.24)	200 (7.87)	A/C	250 x 170 (9.84 x 6.69)	**JBESGP262A**	**NJBESGP262A**
	260 (10.24)	200 (7.87)	B/D	210 x 170 (8.27 x 6.69)	**JBESGP262B**	**NJBESGP262B**
	370 (14.57)	200 (7.87)	A/C	360 x 170 (14.17 x 6.69)	**JBESGP372A**	**NJBESGP372A**
	370 (14.57)	200 (7.87)	B/D	320 x 170 (12.60 x 6.69)	**JBESGP372B**	**NJBESGP372B**
	560 (22.05)	200 (7.87)	A/C	550 x 170 (21.65 x 6.69)	**JBESGP562A**	**NJBESGP562A**
	560 (22.05)	200 (7.87)	B/D	510 x 170 (20.08 x 6.69)	**JBESGP562B**	**NJBESGP562B**
	750 (29.53)	200 (7.87)	A/C	740 x 170 (29.13 x 6.69)	**JBESGP752A**	**NJBESGP752A**
	750 (29.53)	200 (7.87)	B/D	700 x 170 (27.56 x 6.69)	**JBESGP752B**	**NJBESGP752B**
	260 (10.24)	300 (11.81)	A/C	250 x 270 (9.84 x 10.63)	**JBESGP263A**	**NJBESGP263A**
	370 (14.57)	300 (11.81)	A/C	360 x 270 (14.17 x 10.63)	**JBESGP373A**	**NJBESGP373A**
	370 (14.57)	300 (11.81)	B/D	320 x 270 (12.60 x 10.63)	**JBESGP373B**	**NJBESGP373B**
	560 (22.05)	300 (11.81)	A/C	550 x 270 (21.65 x 10.63)	**JBESGP563A**	**NJBESGP563A**
	560 (22.05)	300 (11.81)	B/D	510 x 270 (20.08 x 10.63)	**JBESGP563B**	**NJBESGP563B**
	750 (29.53)	300 (11.81)	A/C	740 x 270 (29.13 x 10.63)	**JBESGP753A**	**NJBESGP753A**
	750 (29.53)	300 (11.81)	B/D	700 x 270 (27.56 x 10.63)	**JBESGP753B**	**NJBESGP753B**
	Coupling Flange					
	260 (10.24)	200 (7.87)	A/C	250 x 120 (9.84 x 4.72)	**JBESCF262A**	**NJBESCF262A**
	370 (14.57)	200 (7.87)	A/C	360 x 170 (14.17 x 6.69)	**JBESCF372A**	**NJBESCF372A**
	370 (14.57)	200 (7.87)	B/D	320 x 170 (12.60 x 6.69)	**JBESCF372B**	**NJBESCF372B**
	560 (22.05)	200 (7.87)	A/C	550 x 170 (21.65 x 6.69)	**JBESCF562A**	**NJBESCF562A**
	560 (22.05)	200 (7.87)	B/D	510 x 170 (20.08 x 6.69)	**JBESCF562B**	**NJBESCF562B**
	750 (29.53)	200 (7.87)	A/C	740 x 170 (29.13 x 6.69)	**JBESCF752A**	**NJBESCF752A**
	750 (29.53)	200 (7.87)	B/D	700 x 170 (27.56 x 6.69)	**JBESCF752B**	**NJBESCF752B**
	370 (14.57)	300 (11.81)	A/C	360 x 270 (14.17 x 10.63)	**JBESCF373A**	**NJBESCF373A**
	370 (14.57)	300 (11.81)	B/D	320 x 270 (12.60 x 10.63)	**JBESCF373B**	**NJBESCF373B**
	560 (22.05)	300 (11.81)	A/C	550 x 270 (21.65 x 10.63)	**JBESCF563A**	**NJBESCF563A**
	560 (22.05)	300 (11.81)	B/D	510 x 270 (20.08 x 10.63)	**JBESCF563B**	**NJBESCF563B**
	750 (29.53)	300 (11.81)	A/C	740 x 270 (29.13 x 10.63)	**JBESCF753A**	**NJBESCF753A**
	750 (29.53)	300 (11.81)	B/D	700 x 270 (27.56 x 10.63)	**JBESCF753B**	**NJBESCF753B**

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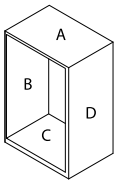
NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
IP66 - IK10

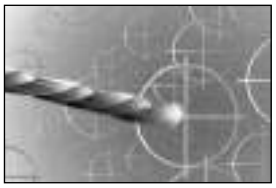
JBES Series for Terminal Junction Box Application Only.

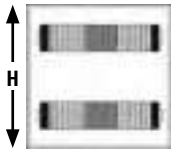
Use the table shown below to select the proper size junction box based upon your requirements.
Custom drilled and equipped boxes can be configured using our drilling guide available online at www.appletonelec.com.

1. Define maximum cable entries according to number of modules available per side.

Cable Entry Metric Thread	Number of Modules
M20	1
M25	1
M32	1
M40	2
M50	3







Type	Dimensions mm (in) Height	Width	Depth	Number of Modules A/C	B/D	Number of Modules ① A'/C'	B'/D'	Terminal Dim. H — mm (in)
JBe10	120 (4.72)	120 (4.72)	95 (3.74)	5	5	–	–	220 (8.66)
JBe20	120 (4.72)	180 (7.09)	95 (3.74)	9	5	–	–	220 (8.66)
JBe30	180 (7.09)	180 (7.09)	95 (3.74)	9	9	–	–	220 (8.66)
JBe36	220 (8.66)	260 (10.24)	150 (5.91)	11	7	9	5	220 (8.66)
JBe36	260 (10.24)	220 (8.66)	150 (5.91)	7	11	5	9	260 (10.24)
JBe46	220 (8.66)	370 (14.57)	200 (7.87)	31	16	19	7	260 (10.24)
JBe46	370 (14.57)	220 (8.66)	200 (7.87)	16	31	7	9	370 (14.57)
JBe47	370 (14.57)	260 (10.24)	200 (7.87)	20	31	14	20	370 (14.57)
JBe47	260 (10.24)	370 (14.57)	200 (7.87)	31	20	19	10	260 (10.24)
JBe55	370 (14.57)	370 (14.57)	200 (7.87)	31	31	19	18	370 (14.57)
JBe65	560 (22.05)	370 (14.57)	200 (7.87)	31	49	19	31	560 (22.05)
JBe65	370 (14.57)	560 (22.05)	200 (7.87)	49	31	34	18	370 (14.57)
JBe75	750 (29.53)	370 (14.57)	200 (7.87)	31	66	19	47	750 (29.53)
JBe75	370 (14.57)	750 (29.53)	200 (7.87)	66	31	49	18	370 (14.57)
JBe77	560 (22.05)	560 (22.05)	200 (7.87)	49	49	34	31	560 (22.05)
JBe79	750 (29.53)	560 (22.05)	200 (7.87)	49	66	34	45	750 (29.53)
JBe79	560 (22.05)	750 (29.53)	200 (7.87)	66	49	49	31	560 (22.05)
JBe86	1130 (44.49)	750 (29.53)	300 (11.81)	102	–	82	–	1130 (44.49)

2. Maximum rail arrangement according to physical dimensions.

	Maximum Quantity of Horizontal Rails Per Quantity							
Terminal Capacity mm² (in²)	2.5 (0.004)	4 (0.006)	6 (0.009)	10 (0.016)	16 (0.025)	35 (0.054)	50 (0.078)	70 (0.109)
JBe10/20/30/36	1	1	1	1	1	1	0	0
JBe36/46/47	2	2	2	1	1	1	0	0
JBe46/47/55/65/75	3	3	2	2	2	2	1	1
JBe65/77/79	5	5	4	4	4	3	2	2
JBe75/79	7	7	6	6	5	4	3	2
JBe86	10	10	9	9	8	6	4	4

① *Enclosure with gland plate.*

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3. Defining maximum terminal block quantity according to power dissipation:

- Junction boxes used for instrumentation applications carry very low current levels. Therefore there is no risk of overheating whatever the number of terminals inside the box.
- For applications other than instrumentation, the following tables allow you to define your junction box depending on the number of terminals and the maximum authorized current being carried with feed-through terminals.
- For single feed terminals using cross connection, consult factory for calculation.

For other terminal block configurations, please consult our drilling guide available online at www.appletonelec.com.

T Rating: T6 @ Ta +55° C (+131 °F)		Type JBe10 120 x 120 x 95 mm (5 x 5 x 4")	JBe20 120 x 180 x 95 mm (5 x 7 x 4")	JBe30 180 x 180 x 95 mm (7 x 7 x 4")
2.5 mm² (0.004 in²)	Quantity	10	21	21
	I Maximum	16 A	16 A	16 A
4 mm² (0.006 in²)	Quantity	8	17	16
	I Maximum	25 A	25 A	25 A
6 mm² (0.009 in²)	Quantity	6	13	13
	I Maximum	32 A	32 A	32 A
10 mm² (0.016 in²)	Quantity	5	10	9
	I Maximum	50 A	50 A	50 A

T Rating: T6 @ Ta +55° C (+131 °F)		Type JBe36 220 x 260 x 150 mm (9 x 10 x 6")	JBe46 220 x 370 x 200 mm (9 x 15 x 8")	JBe47 260 x 370 x 200 mm (10 x 15 x 8")	JBe55 370 x 370 x 200 mm (15 x 15 x 8")
2.5 mm² (0.004 in²)	Quantity	33	50	70	110
	I Maximum	16 A	14 A	12 A	10 A
4 mm² (0.006 in²)	Quantity	21	38	62	80
	I Maximum	25 A	20 A	16 A	15 A
6 mm² (0.009 in²)	Quantity	19	22	23	26
	I Maximum	32 A	32 A	32 A	32 A
10 mm² (0.016 in²)	Quantity	12	14	15	20
	I Maximum	50 A	50 A	50 A	45 A
16 mm² (0.024 in²)	Quantity	8	10	17	20
	I Maximum	63 A	63 A	50 A	50 A
25 mm² (0.039 in²)	Quantity	12	14	16	20
	I Maximum	80 A	80 A	76 A	76 A
35 mm² (0.054 in²)	Quantity	9	11	12	16
	I Maximum	100 A	100 A	100 A	93 A

T Rating: T6 @ Ta +40 °C (+104 °F) T6 @ Ta +55° C (+131 °F)		Type JBe65 560 x 370 x 200 mm (22 x 15 x 8")	JBe75 750 x 370 x 200 mm (30 x 15 x 8")	JBe77 560 x 560 x 200 mm (22 x 22 x 8")	JBe79 560 x 750 x 200 mm (22 x 30 x 8")
35 mm² (0.054 in²)	Quantity	15	16	18	—
	I Maximum	100 A	99 A	100 A	
50 mm² (0.078 in²)	Quantity	12	16	—	—
	I Maximum	125 A	108 A		
70 mm² (0.109 in²)	Quantity	12	16	16	16
	I Maximum	150 A	135 A	144 A	150 A
95 mm² (0.147 in²)	Quantity	9	12	12	16
	I Maximum	200 A	178 A	190 A	173 A
120 mm² (0.186 in²)	Quantity	—	6	—	12
	I Maximum		250 A		225 A
150 mm² (0.233 in²)	Quantity	—	9	—	12
	I Maximum		250 A		250 A

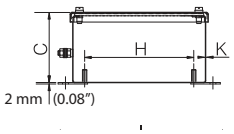
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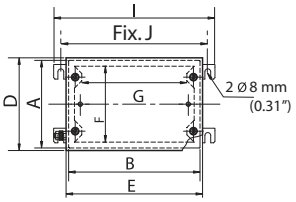
A.T.X.® JBES and ECES Series 316L Stainless Steel Enclosure Dimensions

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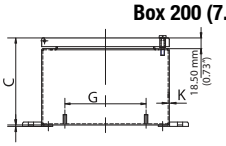
Dimensions in Millimeters (Inches)

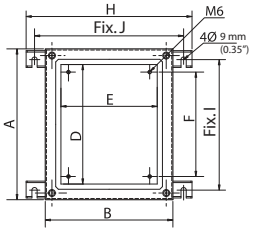
Box 95 (3.74) Depth



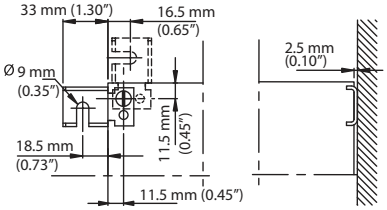


Box 200 (7.87) or 300 (11.81) Depth





Mounting Bracket



L x W x D mm (in)	A	B	C	D	E	F	G	H	I	J	K
Box Depth 95 (3.74)											
120 x 120 x 95 (4.72 x 4.72 x 3.74)	120 (4.72)	120 (4.72)	95 (3.74)	127 (5.00)	127 (5.00)	104 (4.09)	84 (3.31)	88 (3.46)	160 (6.30)	140 (5.51	1.5 (0.06)
120 x 180 x 95 (4.72 x 7.09 x 3.74)	120 (4.72)	180 (7.09)	95 (3.74)	127 (5.00)	187 (7.36)	104 (4.09)	144 (5.67)	148 (5.83)	220 (8.66)	200 (7.87)	1.5 (0.06)
180 x 180 x 95 (7.06 x 7.09 x 3.74)	180 (7.09)	180 (7.09)	95 (3.74)	187 (7.36)	187 (7.36)	164 (6.47)	144 (5.67)	148 (5.83)	220 (8.66)	200 (7.87)	1.5 (0.06)
Box Depth 200 (7.87)											
220 x 370 x 200 (8.66 x 14.57 x 7.87)	220 (8.66)	370 (14.57)	200 (7.87)	166 (6.54)	316 (12.44)	140 (5.51)	290 (11.42)	436 (17.17)	185 (7.28)	407 (16.02)	1.5 (0.06)
370 x 260 x 200 (14.57 x 10.24 x 7.87)	370 (14.57)	260 (10.24)	200 (7.87)	316 (12.44)	206 (8.11)	290 (11.42)	180 (7.09)	326 (12.83)	335 (13.19)	297 (11.69)	1.5 (0.06)
370 x 370 x 200 (14.57 x 14.57 x 7.87)	370 (14.57)	370 (14.57)	200 (7.87)	316 (12.44)	316 (12.44)	290 (11.42)	290 (11.42)	436 (17.17)	335 (13.19)	407 (16.02)	2 (0.08)
560 x 370 x 200 (22.05 x 14.57 x 7.87)	560 (22.05)	370 (14.57)	200 (7.87)	506 (19.92)	316 (12.44)	480 (18.90)	290 (11.42)	436 (17.17)	525 (20.67)	407 (16.02)	2 (0.08)
750 x 370 x 200 (29.53 x 14.57 x 7.87)	750 (29.53)	370 (14.57)	200 (7.87)	695 (27.36)	316 (12.44)	670 (26.38)	290 (11.42)	436 (17.17)	715 (28.15)	407 (16.02)	2 (0.08)
560 x 560 x 200 (22.05 x 22.05 x 7.87)	560 (22.05)	560 (22.05)	200 (7.87)	506 (19.92)	506 (19.92)	480 (18.90)	480 (18.90)	626 (24.65)	525 (20.67)	597 (23.50)	2 (0.08)
750 x 560 x 200 (29.53 x 22.05 x 7.87)	750 (29.53)	560 (22.05)	200 (7.87)	696 (24.40)	506 (19.92)	670 (26.38)	480 (18.90)	626 (24.65)	715 (28.15)	597 (23.50)	2 (0.08)
Box Depth 300 (11.81)											
370 x 370 x 300 (14.57 x 14.57 x 11.81)	370 (14.57)	370 (14.57)	300 (11.81)	316 (12.44)	316 (12.44)	290 (11.42)	290 (11.42)	436 (17.17)	335 (13.19)	407 (16.02)	2 (0.08)
560 x 370 x 300 (22.05 x 14.57 x 11.81)	560 (22.05)	370 (14.57)	300 (11.81)	506 (19.92)	316 (12.44)	480 (18.90)	290 (11.42)	436 (17.17)	525 (20.67)	407 (16.02)	2 (0.08)
750 x 370 x 300 (29.53 x 14.57 x 11.81)	750 (29.53)	370 (14.57)	300 (11.81)	695 (27.36)	316 (12.44)	670 (26.38)	290 (11.42)	436 (17.17)	715 (28.15)	407 (16.02)	2 (0.08)
560 x 560 x 300 (22.05 x 22.05 x 11.81)	560 (22.05)	560 (22.05)	300 (11.81)	506 (19.92)	506 (19.92)	480 (18.90)	480 (18.90)	626 (24.65)	525 (20.67)	597 (23.50)	2 (0.08)
750 x 560 x 300 (29.53 x 22.05 x 11.81)	750 (29.53)	560 (22.05)	300 (11.81)	696 (24.40)	506 (19.92)	670 (26.38)	480 (18.90)	626 (24.65)	715 (28.15)	597 (23.50)	2 (0.08)
1130 x 750 x 300 (44.49 x 29.53 x 11.81)	1130 (44.49)	750 (29.53)	300 (11.81)	1076 (42.36)	506 (19.92)	1050 (41.34)	670 (26.38)	816 (32.13)	1095 (43.11)	787 (30.98)	2 (0.08)

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Nutsteel® NAJQ Junction Box

Increased Safety

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e IIC Gb
Ex tb IIIC Db
IP66



Applications

- Suitable for connection of wires and cables in areas classified as Zones 1 and 2, 21 and 22.
- Ideal for wet and corrosive atmospheres.

Features

- Assembled with Ex e terminal blocks.
- Supplied with internal and external ground terminal.
- Custom entries provided. Specify location and size.
- Cable glands sold separately.
- Ex e: Increased safety method of protection suitable for Zone 1 and 2.
- tb: Protection by enclosures suitable for Zone 21 and 22.
- Entry and exit of electrical conductors must be with appropriate Ex e or Ex de cable glands. If mechanical protection of cables is required, use NEA2FRC type cable glands with conduit.
- NPT and BSP threads: Ø 1/2" to Ø 4". Metric threads: M16 to M100.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws and washers: AISI 316 stainless steel
- Sealing gasket: silicone
- Terminal: polyamide

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NAJQ02112**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 10th position; example: NAJQ02112**M**.

NBR IEC Brazilian Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 11.0460-X
- Ex Standards: ABNT NBR IEC 60079-0; 60079-7; 60079-31
- Others Standards: ABNT NBR IEC 60529 (IP)
- T Rating: T3
- Ingress Protection (solid and liquid): IP66

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Nutsteel® NAJQ Junction Box

Increased Safety

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex e II Gb
Ex tb IIIC Db
IP66

Standard Enclosure With No Holes

Quantity Blocks	Quantity Number of Terminals	Terminal Block Nominal Section mm² (in²)	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①② Junction Box	Catalog Number ①② Enclosure
1	12	0.5 -2.5 (0.0008 - 0.004)	5.45 (11.99)	13.35 (814.7)	**NAJQ02112N**	**NTCM1M1H0**
1	15	0.5 -2.5 (0.0008 - 0.004)	4.80 (10.56)	8.50 (518.7)	**NAJQ02115N**	**NTCM1P3H0FM01**
1	20	0.5 -2.5 (0.0008 - 0.004)	4.32 (9.50)	7.20 (439.4)	**NAJQ02120N**	**NTCM1P5H0**
1	29	0.5 -2.5 (0.0008 - 0.004)	8.15 (17.93)	20.95 (1278.4)	**NAJQ02129N**	**NTCM1M3H0**
1	52	0.5 -2.5 (0.0008 - 0.004)	11.93 (26.25)	27.43 (1673.9)	**NAJQ02152N**	**NTCM1M6H0**
2	88	0.5 -2.5 (0.0008 - 0.004)	14.25 (31.35)	38.63 (2357.3)	**NAJQ02244N**	**NTCM1G2H0**
2	160	0.5 -2.5 (0.0008 - 0.004)	22.03 (48.47)	59.44 (3627.3)	**NAJQ02280N**	**NTCM1G4H0**
2	176	0.5 -2.5 (0.0008 - 0.004)	26.10 (57.42)	68.80 (4198.4)	**NAJQ02288N**	**NTCM1G5H0**
1	11	0.5 - 4.0 (0.0008 - 0.006)	5.55 (12.21)	13.35 (814.7)	**NAJQ04111N**	**NTCM1M1H0**
1	12	0.5 - 4.0 (0.0008 - 0.006)	4.90 (10.78)	8.50 (518.7)	**NAJQ04112N**	**NTCM1P3H0FM01**
1	18	0.5 - 4.0 (0.0008 - 0.006)	4.42 (9.72)	7.20 (439.4)	**NAJQ04118N**	**NTCM1P5H0**
1	27	0.5 - 4.0 (0.0008 - 0.006)	8.25 (18.15)	20.95 (1278.4)	**NAJQ04127N**	**NTCM1M3H0**
1	48	0.5 - 4.0 (0.0008 - 0.006)	12.03 (26.47)	27.43 (1673.9)	**NAJQ04148N**	**NTCM1M6H0**
2	88	0.5 - 4.0 (0.0008 - 0.006)	14.35 (31.57)	38.63 (2357.3)	**NAJQ04244N**	**NTCM1G2H0**
2	144	0.5 - 4.0 (0.0008 - 0.006)	22.13 (48.69)	59.44 (3627.3)	**NAJQ04272N**	**NTCM1G4H0**
2	160	0.5 - 4.0 (0.0008 - 0.006)	26.25 (57.75)	68.80 (4198.4)	**NAJQ04280N**	**NTCM1G5H0**
1	9	0.5 - 6.0 (0.0008 - 0.009)	5.60 (12.32)	13.35 (814.7)	**NAJQ06109N**	**NTCM1M1H0**
1	10	0.5 - 6.0 (0.0008 - 0.009)	5.00 (11.00)	8.50 (518.7)	**NAJQ06110N**	**NTCM1P3H0FM01**
1	15	0.5 - 6.0 (0.0008 - 0.009)	4.45 (9.79)	7.20 (439.4)	**NAJQ06115N**	**NTMC1P5H0**
1	22	0.5 - 6.0 (0.0008 - 0.009)	8.30 (18.26)	20.95 (1278.4)	**NAJQ06122N**	**NTCM1M3H0**
1	39	0.5 - 6.0 (0.0008 - 0.009)	12.10 (26.62)	27.43 (1673.9)	**NAJQ06139N**	**NTCM1M6H0**
2	64	0.5 - 6.0 (0.0008 - 0.009)	14.45 (31.79)	38.63 (2357.3)	**NAJQ06232N**	**NTCM1G2H0**
2	120	0.5 - 6.0 (0.0008 - 0.009)	22.23 (48.91)	59.44 (3627.3)	**NAJQ06260N**	**NTCM1G4H0**
2	132	0.5 - 6.0 (0.0008 - 0.009)	26.30 (57.86)	68.80 (4198.4)	**NAJQ06266N**	**NTCM1G5H0**
1	7	1.5 - 10.0 (0.002 - 0.02)	5.65 (12.43)	13.35 (814.7)	**NAJQ10107N**	**NTCM1M1H0**
1	8	1.5 - 10.0 (0.002 - 0.02)	5.10 (11.22)	8.50 (518.7)	**NAJQ10108N**	**NTCM1P3H0FM01**
1	12	1.5 - 10.0 (0.002 - 0.02)	4.40 (9.68)	7.20 (439.4)	**NAJQ10112N**	**NTCM1P5H0**
1	17	1.5 - 10.0 (0.002 - 0.02)	8.35 (18.37)	20.95 (1278.4)	**NAJQ10117N**	**NTCM1M3H0**
1	31	1.5 - 10.0 (0.002 - 0.02)	12.15 (26.73)	27.43 (1673.9)	**NAJQ10131N**	**NTCM1M6H0**
2	52	1.5 - 10.0 (0.002 - 0.02)	14.50 (31.90)	38.63 (2357.3)	**NAJQ10226N**	**NTCM1G2H0**
2	96	1.5 - 10.0 (0.002 - 0.02)	22.30 (49.06)	59.44 (3627.3)	**NAJQ10248N**	**NTCM1G4H0**
2	104	1.5 - 10.0 (0.002 - 0.02)	26.40 (58.08)	68.80 (4198.4)	**NAJQ10252N**	**NTCM1G5H0**
1	6	4.0 - 16.0 (0.006 - 0.025)	4.45 (9.79)	7.20 (439.4)	**NAJQ16106N**	**NTCM1P5H0**
1	8	4.0 - 16.0 (0.006 - 0.025)	5.15 (11.33)	8.50 (518.7)	**NAJQ16108N**	**NTCM1P3H0FM01**
1	14	4.0 - 16.0 (0.006 - 0.025)	8.75 (19.25)	20.95 (1278.4)	**NAJQ16114N**	**NTCM1M3H0**
1	25	4.0 - 16.0 (0.006 - 0.025)	12.43 (27.35)	27.43 (1673.9)	**NAJQ16125N**	**NTCM1M6H0**
2	44	4.0 - 16.0 (0.006 - 0.025)	14.85 (32.67)	38.63 (2357.3)	**NAJQ16222N**	**NTCM1G2H0**
2	80	4.0 - 16.0 (0.006 - 0.025)	22.63 (49.79)	59.44 (3627.3)	**NAJQ16240N**	**NTCM1G4H0**
2	88	4.0 - 16.0 (0.006 - 0.025)	26.70 (58.74)	68.80 (4198.4)	**NAJQ16244N**	**NTCM1G5H0**
1	4	10.0 - 35.0 (0.016 - 0.054)	4.70 (10.34)	7.20 (439.4)	**NAJQ35104N**	**NTCM1P3H0FM01**
1	9	10.0 - 35.0 (0.016 - 0.054)	8.75 (19.25)	20.95 (1278.4)	**NAJQ35109N**	**NTCM1M3H0**
1	17	10.0 - 35.0 (0.016 - 0.054)	12.23 (26.91)	27.43 (1673.9)	**NAJQ35117N**	**NTCM1M6H0**
2	28	10.0 - 35.0 (0.016 - 0.054)	15.05 (33.11)	38.63 (2357.3)	**NAJQ35214N**	**NTCM1G2H0**
2	52	10.0 - 35.0 (0.016 - 0.054)	22.83 (50.23)	59.44 (3627.3)	**NAJQ35226N**	**NTCM1G4H0**
2	60	10.0 - 35.0 (0.016 - 0.054)	26.90 (59.18)	68.80 (4198.4)	**NAJQ35230N**	**NTCM1G5H0**

① *The catalog numbers located above are for base enclosures without holes. See the Ordering Information on the following pages to create a customized drilled and threaded enclosure.*
② *For BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NAJQ02112**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 10th position; example: NAJQ02112**M**.*

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Ex e II Gb
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Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NAJQ02112N-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 1		Step 2		Step 3
NAJQ02112N	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

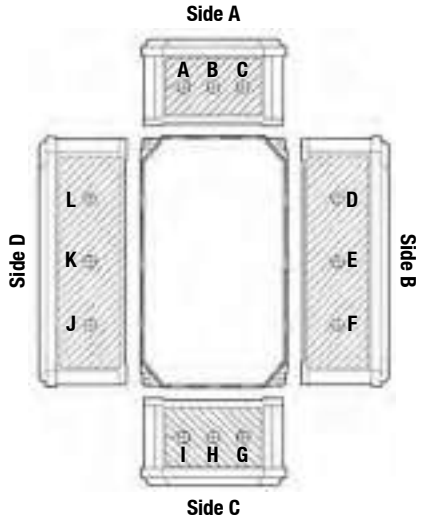
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50
07M	M63
08M	M75
09M	M90

Hole and Enclosure Side Locations



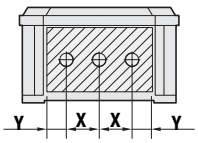
Thread Equivalence

NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

Drilling Technical Data

Enclosure	Maximum Diameter Allowed Drilling
NTCM1P3H0FM01	1/2" to 2" - M16 to M50
NTCM1P5H0	1/2" to 2" - M16 to M50
NTCM1M1H0	1/2" to 3-1/2" - M16 to M90
NTCM1M3H0	1/2" to 3-1/2" - M16 to M90
NTCM1M6H0	1/2" to 3-1/2" - M16 to M90
NTCM1G2H0	1/2" to 4" - M16 to M100
NTCM1G4H0	1/2" to 4" - M16 to M100
NTCM1G5H0	1/2" to 4" - M16 to M100

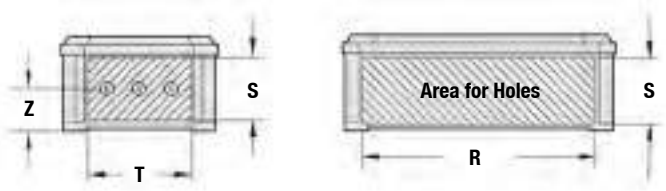
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Distance "X and Y"

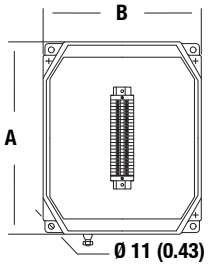
Ø Nominal	4"	3–1/2"	3"	2–1/2"	2"	1–1/2"	1–1/4"	1"	3/4"	1/2"
Minimum Distance "X" Between Holes										
1/2"	106 (4.17)	95 (3.74)	85 (3.35)	71 (2.80)	61 (2.40)	51 (2.01)	46 (1.81)	39 (1.54)	35 (1.38)	32 (1.26)
3/4"	109 (4.29)	98 (3.86)	88 (3.46)	74 (2.91)	64 (2.52)	54 (2.13)	49 (1.93)	42 (1.65)	37 (1.46)	35 (1.38)
1"	112 (4.41)	102 (4.02)	91 (3.58)	77 (3.03)	67 (2.64)	57 (2.24)	52 (2.05)	45 (1.77)	42 (1.65)	1.54/39
1-1/4"	117 (4.61)	106 (4.17)	96 (3.78)	82 (3.23)	72 (2.83)	62 (2.44)	57 (2.24)	52 (2.05)	49 (1.93)	1.81/46
1-1/2"	120 (4.72)	109 (4.29)	99 (3.90)	85 (3.35)	75 (2.95)	65 (2.56)	62 (2.44)	57 (2.24)	54 (2.13)	51 (2.01)
2"	126 (4.96)	115 (4.53)	105 (4.13)	91 (3.58)	81 (3.19)	75 (2.95)	72 (2.83)	67 (2.64)	64 (2.52)	2.40/61
2-1/2"	132 (5.20)	121 (4.76)	111 (4.37)	97 (3.82)	91 (3.58)	85 (3.35)	82 (3.23)	77 (3.03)	74 (2.91)	2.80/71
3"	140 (5.51)	130 (5.12)	119 (4.69)	111 (4.37)	105 (4.13)	99 (3.90)	96 (3.78)	91 (3.58)	88 (3.46)	85 (3.35)
3-1/2"	147 (5.79)	136 (5.35)	130 (5.12)	121 (4.76)	115 (4.53)	109 (4.29)	106 (4.17)	102 (4.02)	98 (3.86)	95 (3.74)
4"	152 (5.98)	147 (5.79)	140 (5.51)	132 (5.20)	126 (4.96)	120 (4.72)	117 (4.61)	112 (4.41)	109 (4.29)	106 (4.17)
Distance "Y" mm (in)										
	11 (0.43)	13 (0.51)	17 (0.67)	21 (0.83)	24 (0.94)	30 (1.18)	36 (1.42)	44 (1.73)	51 (2.01)	57 (2.24)

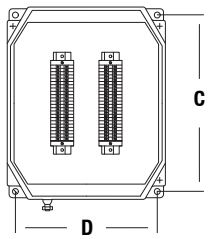
Enclosures

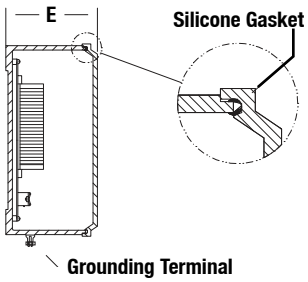


	Area for Holes mm (in)			
Enclosure Catalog Number	**R**	**S**	**T**	**Z**
NTCM1P3H0FM01	140 (5.51)	100 (3.94)	140 (5.51)	55 (2.17)
NTCM1P5H0	200 (7.87)	72 (2.83)	70 (2.76)	55 (2.17)
NTCM1M1H0	155 (6.10)	115 (4.53)	180 (7.09)	75 (2.95)
NTCM1M3H0	265 (10.43)	115 (4.53)	180 (7.09)	75 (2.95)
NTCM1M6H0	410 (16.14)	115 (4.53)	180 (7.09)	75 (2.95)
NTCM1G2H0	370 (14.57)	170 (6.69)	265 (10.43)	105 (4.13)
NTCM1G4H0	520 (0.47)	170 (6.69)	265 (10.43)	105 (4.13)
NTCM1G5H0	610 (24.02)	170 (6.69)	265 (10.43)	105 (4.13)

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Junction Box	Enclosure	Dimensions mm (in) A	B	C	D	E
NAJQ02112N	NTCM1M1H0	230 (9.06)	290 (11.42)	205 (8.07)	260 (10.24)	170 (6.69)
NAJQ02115N	NTCM1P3H0FM01	240 (9.45)	200 (7.87)	210 (8.27)	176 (6.93)	125 (4.92)
NAJQ02120N	NTCM1P5H0	290 (11.42)	155 (6.10)	265 (10.43)	130 (5.12)	125 (4.92)
NAJQ02129N	NTCM1M3H0	355 (13.98)	295 (11.61)	330 (12.99)	260 (10.24)	170 (6.69)
NAJQ02152N	NTCM1M6H0	520 (20.47)	295 (11.61)	490 (19.29)	260 (10.24)	170 (6.69)
NAJQ02244N	NTCM1G2H0	465 (18.31)	370 (14.57)	445 (17.52)	340 (13.39)	220 (8.66)
NAJQ02280N	NTCM1G4H0	630 (24.80)	370 (14.57)	590 (23.23)	340 (13.39)	220 (8.66)
NAJQ02288N	NTCM1G5H0	710 (27.95)	380 (14.96)	675 (26.57)	340 (13.39)	220 (8.66)
NAJQ04111N	NTCM1M1H0	230 (9.06)	290 (11.42)	205 (8.07)	260 (10.24)	170 (6.69)
NAJQ04112N	NTCM1P3H0FM01	240 (9.45)	200 (7.87)	210 (8.27)	176 (6.93)	125 (4.92)
NAJQ04118N	NTCM1P5H0	290 (11.42)	155 (6.10)	265 (10.43)	130 (5.12)	125 (4.92)
NAJQ04127N	NTCM1M3H0	355 (13.98)	295 (11.61)	330 (12.99)	260 (10.24)	170 (6.69)
NAJQ04148N	NTCM1M6H0	520 (20.47)	295 (11.61)	490 (19.29)	260 (10.24)	170 (6.69)
NAJQ04244N	NTCM1G2H0	465 (18.31)	370 (14.57)	445 (17.52)	340 (13.39)	220 (8.66)
NAJQ04272N	NTCM1G4H0	630 (24.80)	370 (14.57)	590 (23.23)	340 (13.39)	220 (8.66)
NAJQ04280N	NTCM1G5H0	710 (27.95)	380 (14.96)	675 (26.57)	340 (13.39)	220 (8.66)
NAJQ06109N	NTCM1M1H0	230 (9.06)	290 (11.42)	205 (8.07)	260 (10.24)	170 (6.69)
NAJQ06110N	NTCM1P3H0FM01	240 (9.45)	200 (7.87)	210 (8.27)	176 (6.93)	125 (4.92)
NAJQ06115N	NTMC1P5H0	290 (11.42)	155 (6.10)	265 (10.43)	130 (5.12)	125 (4.92)
NAJQ06122N	NTCM1M3H0	355 (13.98)	295 (11.61)	330 (12.99)	260 (10.24)	170 (6.69)
NAJQ06139N	NTCM1M6H0	520 (20.47)	295 (11.61)	490 (19.29)	260 (10.24)	170 (6.69)
NAJQ06232N	NTCM1G2H0	465 (18.31)	370 (14.57)	445 (17.52)	340 (13.39)	220 (8.66)
NAJQ06260N	NTCM1G4H0	630 (24.80)	370 (14.57)	590 (23.23)	340 (13.39)	220 (8.66)
NAJQ06266N	NTCM1G5H0	710 (27.95)	380 (14.96)	675 (26.57)	340 (13.39)	220 (8.66)
NAJQ10107N	NTCM1M1H0	230 (9.06)	290 (11.42)	205 (8.07)	260 (10.24)	170 (6.69)
NAJQ10108N	NTCM1P3H0FM01	240 (9.45)	200 (7.87)	210 (8.27)	176 (6.93)	125 (4.92)
NAJQ10112N	NTCM1P5H0	290 (11.42)	155 (6.10)	265 (10.43)	130 (5.12)	125 (4.92)
NAJQ10117N	NTCM1M3H0	355 (13.98)	295 (11.61)	330 (12.99)	260 (10.24)	170 (6.69)
NAJQ10131N	NTCM1M6H0	520 (20.47)	295 (11.61)	490 (19.29)	260 (10.24)	170 (6.69)
NAJQ10226N	NTCM1G2H0	465 (18.31)	370 (14.57)	445 (17.52)	340 (13.39)	220 (8.66)
NAJQ10248N	NTCM1G4H0	630 (24.80)	370 (14.57)	590 (23.23)	340 (13.39)	220 (8.66)
NAJQ10252N	NTCM1G5H0	710 (27.95)	380 (14.96)	675 (26.57)	340 (13.39)	220 (8.66)
NAJQ16106N	NTCM1P5H0	290 (11.42)	155 (6.10)	265 (10.43)	130 (5.12)	125 (4.92)
NAJQ16108N	NTCM1P3H0FM01	240 (9.45)	200 (7.87)	210 (8.27)	176 (6.93)	125 (4.92)
NAJQ16114N	NTCM1M3H0	355 (13.98)	295 (11.61)	330 (12.99)	260 (10.24)	170 (6.69)
NAJQ16125N	NTCM1M6H0	520 (20.47)	295 (11.61)	490 (19.29)	260 (10.24)	170 (6.69)
NAJQ16222N	NTCM1G2H0	465 (18.31)	370 (14.57)	445 (17.52)	340 (13.39)	220 (8.66)
NAJQ16240N	NTCM1G4H0	630 (24.80)	370 (14.57)	590 (23.23)	340 (13.39)	220 (8.66)
NAJQ16244N	NTCM1G5H0	710 (27.95)	380 (14.96)	675 (26.57)	340 (13.39)	220 (8.66)
NAJQ35104N	NTCM1P3H0FM01	240 (9.45)	200 (7.87)	210 (8.27)	176 (6.93)	125 (4.92)
NAJQ35109N	NTCM1M3H0	355 (13.98)	295 (11.61)	330 (12.99)	260 (10.24)	170 (6.69)
NAJQ35117N	NTCM1M6H0	520 (20.47)	295 (11.61)	490 (19.29)	260 (10.24)	170 (6.69)
NAJQ35214N	NTCM1G2H0	465 (18.31)	370 (14.57)	445 (17.52)	340 (13.39)	220 (8.66)
NAJQ35226N	NTCM1G4H0	630 (24.80)	370 (14.57)	590 (23.23)	340 (13.39)	220 (8.66)
NAJQ35230N	NTCM1G5H0	710 (27.95)	380 (14.96)	675 (26.57)	340 (13.39)	220 (8.66)

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Nutsteel® NACAJ Junction Box

Increased Safety

NBR IEC:
Zone 1 and 2
Ex e II Gb
Ex tb IIIC Db
IP66



Applications

- Ideal for use where there is a risk of explosion in industries such as:
  - — Chemical plants
  - — Petrochemical plants
  - — Paint and varnish facilities
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint spray booths
  - — Flammable product storage facilities

Features

- Supplied with internal/external ground terminal for cables up to 25 mm^2 (0.0093 in^2).
- Supplied with a 3/4" BSP sealing bushing that provides protection in Ex d enclosures. Complete with up to eight 2.5 mm^2 (0.0038 in^2) flexible cables.
- Easy opening and closing with Allen Head screws.
- Housing with increased safety, with complete Ex e terminal block for cables from 0.5 to 4 mm^2 (0.00077 to 0.0062 in^2).
- Custom threaded entries provided. Specify location and size.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.
- Entry and exit of electrical conductors must be with appropriate Ex e or Ex d cable glands. If mechanical protection of cables is required, use NEA2FRC type cable glands with conduit.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws and washers: AISI 304 stainless steel
- Sealing gasket: silicone

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

NBR IEC Brazilian Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 11.0085
- Ex Standards: ABNT NBR IEC 60079-0; 60079-7; 60079-31
- Others Standards: ABNT NBR IEC 60529 (IP)
- T Rating: T6
- Ingress Protection (solid and liquid): IP66

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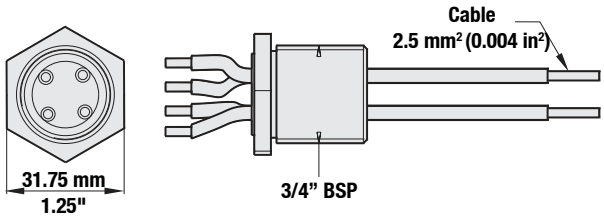
Nutsteel® NACAJ Junction Box

Increased Safety

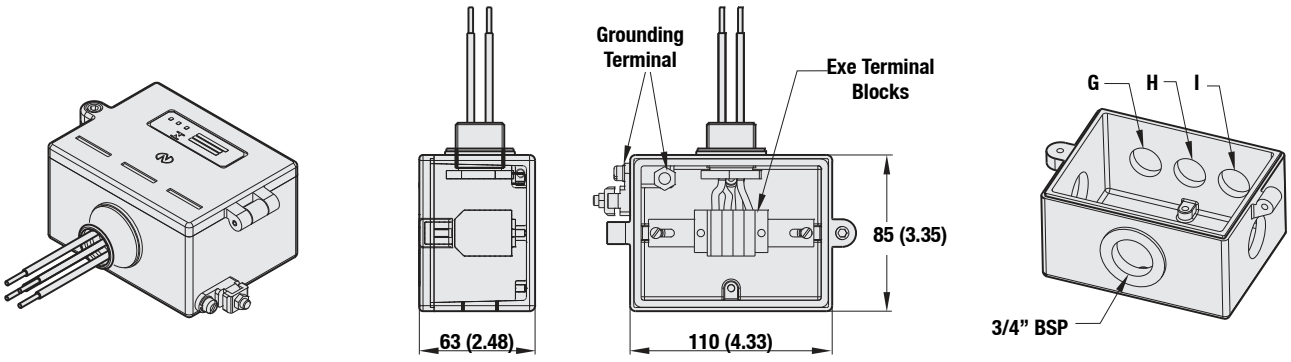
NBR IEC:
Zone 1 and 2
Ex e II Gb
Ex tb IIIC Db
IP66

Holes	Ø Thread	Number of Terminals	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
G – I	M20	4	0.70 (1.54)	2.96 (180.6)	**NACAJ001**
G – I	M25	4	0.70 (1.54)	2.96 (180.6)	**NACAJ002**
H	M20	4	0.70 (1.54)	2.96 (180.6)	**NACAJ003**
H	M25	4	0.70 (1.54)	2.96 (180.6)	**NACAJ004**
H	3/4" BSP	4	0.70 (1.54)	2.96 (180.6)	**NACAJ005**
G – I	M20	8	0.80 (1.76)	2.96 (180.6)	**NACAJ006**
G – I	M25	8	0.80 (1.76)	2.96 (180.6)	**NACAJ007**

Accessories

	Description	Catalog Number
	Bushing 3/4" BSP, guarantees Ex d protection . Sealed with up to eight 2.5 mm² (0.004 in²) cables.	**NEBSB02B**

Dimensions in Millimeters (Inches)



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A.T.X.® ECDX Series Customized Welded Steel Enclosures

Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB Gb
Ex tb IIIC Db
IP66 - IK10

Applications

- Designed for use in Zones 1, 2, 21 and 22 in the oil and gas industry; i.e. petroleum, chemical, refineries, and other industrial process facilities.
- Enclosures may be customized to house terminal blocks, and a large range of components; i.e. control units, breakers, starters, relays, meters, etc.

Features

- Enclosures are available in a wide range of sizes.
- Precision machined flameproof joint between body and cover.
- Hinged door.
- External fixing lugs.
- Internal mounting pan.
- Square and round windows available in a wide range of sizes.
- Machining and drilling must be done at our factory.
- Power dissipated calculation including cables must be completed according to each size of certified enclosure.

Standard Materials

- Gray painted mechanically welded steel enclosure
- Stainless steel hardware

Options

- Indirect cable entries available through Ex e connection enclosure.
- Factory assembled and wired.
- Switch rack assembly.
- Empty enclosure with Ex “U” component marking for recertification by notified body (CMS3-4-5-6-7-40-43-44U).

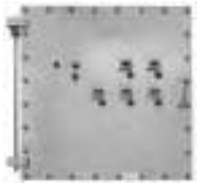
ATEX/IECEx Certifications and Compliances

- Certification Type CMS
  - — Gas, Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex d IIB
    - – T Rating: T6 to T4
  - — Dust, Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD
    - – Surface Temperature: T80 °C to T130 °C (T176 °F to T266 °F)
  - — Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
  - — CE Declaration of Conformity: 50236
  - — ATEX Certificate: LCIE 02 ATEX 6247X
  - — IECEx Certificate: LCIE Ex 02.031X
  - — Other Certifications: GOST R
- Certification Type CMS 3U-4U-5U-6U-7U-40U-43U
  - — Gas, Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex d IIB
  - — Dust, Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD
  - — Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
  - — CE Declaration of Conformity: 5C235
  - — ATEX Certificate: LCIE 07 ATEX 0008U
  - — IECEx Certificate: LCIE Ex 07.007U
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Internal Volume: > 2 dm^3 (2 liters)
- Ex Standards: EN/IEC 60079-0; 60079-1; 61241-0, 61241-1
- Other Standards: EN/IEC 60529 (IP), 62262 (IK)

ECDX Series



Example of Customized Enclosure



NBR IEC Brazilian Certifications and Compliances

- Certification Type CMS
  - — Gas, Zones 1 and 2
    - – IEC Marking: Ex d IIB Gb
    - – T Rating: T6 to T4
  - — Dust, Zones 21 and 22
    - – IEC Marking: Ex tb IIIC Db
    - – Surface Temperature: T80 °C to T130 °C (T176 °F to T266 °F)
  - — Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 11.0641-X
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-11; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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A.T.X.® ECDX Series Customized Welded Steel Enclosures

Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB Gb
Ex tb IIIC Db
IP66 - IK10

Catalog Numbering Guide — ECDX Customized Enclosures

ECDX — Series:
ECDX - ATEX/IECEx Certified Enclosure
NECDX - NBR IEC Certified Enclosure

B — Classification:
B - IIB

— Internal Dimensions mm (in):
Length x Width x Depth
(see ordering information on following page)

S — Options:
S - 316L Stainless Steel
U - Component Certification U
- Customized Enclosures
(6 digit number will be assigned at time of order placement)

Type	Dimensions — L x W x D mm (in)	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR
Ex d IIB Enclosure in Welded Steel ①					
CMS3	300 (11.81) x 270 (10.63) x 180 (7.09)	92 (202.83)	234 (14279.6)	**ECDXB302718**	**NECDXB302718**
CMS4	415 (16.34) x 260 (10.24) x 285 (11.22)	152 (335.10)	234 (14279.6)	**ECDXB412628**	**NECDXB412628**
CMS5	415 (16.34) x 385 (15.16) x 285 (11.22)	180 (396.83)	369 (22517.8)	**ECDXB413828**	**NECDXB413828**
CMS6	635 (25.00) x 375 (14.76) x 345 (13.58)	336 (740.75)	647 (39482.4)	**ECDXB633734**	**NECDXB633734**
CMS7	635 (25.00) x 575 (22.64) x 345 (13.58)	384 (846.58)	647 (39482.4)	**ECDXB635734**	**NECDXB635734**
CMS47	700 (27.56) x 500 (19.69) x 295 (11.61)	268 (590.84)	698 (42594.6)	**ECDXB705029**	**NECDXB705029**
CMS43	700 (27.56) x 600 (23.62) x 295 (11.61)	298 (656.98)	698 (42594.6)	**ECDXB706029**	**NECDXB706029**
CMS46	700 (27.56) x 700 (27.56) x 295 (11.61)	318 (701.07)	698 (42594.6)	**ECDXB707029**	**NECDXB707029**
CMS44	800 (31.50) x 500 (19.69) x 295 (11.61)	298 (656.98)	698 (42594.6)	**ECDXB805029**	**NECDXB805029**
CMS40	800 (31.50) x 600 (23.62) x 295 (11.61)	318 (701.07)	698 (42594.6)	**ECDXB806029**	**NECDXB806029**
CMS42	800 (31.50) x 700 (27.56) x 295 (11.61)	308 (679.02)	698 (42594.6)	**ECDXB807029**	**NECDXB807029**
CMS45	900 (35.43) x 500 (19.69) x 295 (11.61)	348 (767.21)	698 (42594.6)	**ECDXB905029**	**NECDXB905029**
CMS41	900 (35.43) x 600 (23.62) x 295 (11.61)	348 (767.21)	698 (42594.6)	**ECDXB906029**	**NECDXB906029**
CMS57	1000 (39.37) x 550 (21.65) x 295 (11.61)	395 (870.83)	1144 (69811.2)	**ECDXB105529**	**NECDXB105529**
CMS52	1000 (39.37) x 630 (24.80) x 295 (11.61)	430 (947.99)	1144 (69811.2)	**ECDXB106329**	**NECDXB106329**
CMS55	1000 (39.37) x 700 (27.56) x 295 (11.61)	452 (996.49)	1144 (69811.2)	**ECDXB107029**	**NECDXB107029**
CMS53	1200 (47.24) x 550 (21.65) x 295 (11.61)	445 (981.06)	1144 (69811.2)	**ECDXB125529**	**NECDXB125529**
CMS50	1200 (47.24) x 630 (24.80) x 295 (11.61)	485 (1069.24)	1144 (69811.2)	**ECDXB126329**	**NECDXB126329**
CMS54	1200 (47.24) x 700 (27.56) x 295 (11.61)	515 (1135.38)	1144 (69811.2)	**ECDXB127029**	**NECDXB127029**
CMS56	1400 (55.12) x 550 (21.65) x 295 (11.61)	495 (1091.29)	1144 (69811.2)	**ECDXB145529**	**NECDXB145529**
CMS51	1400 (55.12) x 630 (24.80) x 295 (11.61)	540 (1190.50)	1144 (69811.2)	**ECDXB146329**	**NECDXB146329**



① For component certification and/or customized enclosure add digits as per examples: ECDXB302718# or ECDXB302718U#.
② For component certification and/or customized enclosure add digits as per example: ECDXB302718S# or ECDXB302718SU#.

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A.T.X.® ECDX Series Customized Welded Steel Enclosures

Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

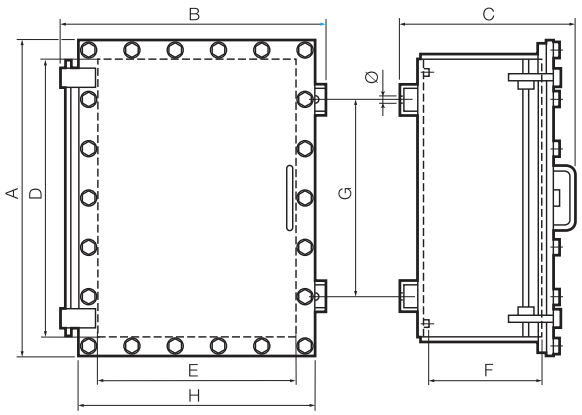
NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB Gb
Ex tb IIIC Db
IP66 - IK10

	Type	Dimensions — L x W x D mm (in)	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR
Ex d IIB Enclosure in 316L Stainless Steel ②						
	CMS3	300 (11.81) x 270 (10.63) x 180 (7.09)	92 (202.83)	234 (14279.6)	**ECDXB302718S**	**NECDXB302718S**
	CMS4	415 (16.34) x 260 (10.24) x 285 (11.22)	152 (335.10)	234 (14279.6)	**ECDXB412628S**	**NECDXB412628S**
	CMS5	415 (16.34) x 385 (15.16) x 285 (11.22)	180 (396.83)	369 (22517.8)	**ECDXB413828S**	**NECDXB413828S**
	CMS6	635 (25.00) x 375 (14.76) x 345 (13.58)	336 (740.75)	647 (39482.4)	**ECDXB633734S**	**NECDXB633734S**
	CMS7	635 (25.00) x 575 (22.64) x 345 (13.58)	384 (846.58)	647 (39482.4)	**ECDXB635734S**	**NECDXB635734S**
	CMS47	700 (27.56) x 500 (19.69) x 295 (11.61)	268 (590.84)	698 (42594.6)	**ECDXB705029S**	**NECDXB705029S**
	CMS43	700 (27.56) x 600 (23.62) x 295 (11.61)	298 (656.98)	698 (42594.6)	**ECDXB706029S**	**NECDXB706029S**
	CMS46	700 (27.56) x 700 (27.56) x 295 (11.61)	318 (701.07)	698 (42594.6)	**ECDXB707029S**	**NECDXB707029S**
	CMS44	800 (31.50) x 500 (19.69) x 295 (11.61)	298 (656.98)	698 (42594.6)	**ECDXB805029S**	**NECDXB805029S**
	CMS40	800 (31.50) x 600 (23.62) x 295 (11.61)	318 (701.07)	698 (42594.6)	**ECDXB806029S**	**NECDXB806029S**
	CMS42	800 (31.50) x 700 (27.56) x 295 (11.61)	308 (679.02)	698 (42594.6)	**ECDXB807029S**	**NECDXB807029S**
	CMS45	900 (35.43) x 500 (19.69) x 295 (11.61)	348 (767.21)	698 (42594.6)	**ECDXB905029S**	**NECDXB905029S**
	CMS41	900 (35.43) x 600 (23.62) x 295 (11.61)	348 (767.21)	698 (42594.6)	**ECDXB906029S**	**NECDXB906029S**
	CMS57	1000 (39.37) x 550 (21.65) x 295 (11.61)	395 (870.83)	1144 (69811.2)	**ECDXB105529S**	**NECDXB105529S**
	CMS52	1000 (39.37) x 630 (24.80) x 295 (11.61)	430 (947.99)	1144 (69811.2)	**ECDXB106329S**	**NECDXB106329S**
	CMS55	1000 (39.37) x 700 (27.56) x 295 (11.61)	452 (996.49)	1144 (69811.2)	**ECDXB107029S**	**NECDXB107029S**
	CMS53	1200 (47.24) x 550 (21.65) x 295 (11.61)	445 (981.06)	1144 (69811.2)	**ECDXB125529S**	**NECDXB125529S**
	CMS50	1200 (47.24) x 630 (24.80) x 295 (11.61)	485 (1069.24)	1144 (69811.2)	**ECDXB126329S**	**NECDXB126329S**
	CMS54	1200 (47.24) x 700 (27.56) x 295 (11.61)	515 (1135.38)	1144 (69811.2)	**ECDXB127029S**	**NECDXB127029S**
	CMS56	1400 (55.12) x 550 (21.65) x 295 (11.61)	495 (1091.29)	1144 (69811.2)	**ECDXB145529S**	**NECDXB145529S**
	CMS51	1400 (55.12) x 630 (24.80) x 295 (11.61)	540 (1190.50)	1144 (69811.2)	**ECDXB146329S**	**NECDXB146329S**

① For component certification and/or customized enclosure add digits as per examples: ECDXB302718# or ECDXB302718U#.
② For component certification and/or customized enclosure add digits as per example: ECDXB302718S# or ECDXB302718SU#.

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Dimensions in Millimeters (Inches)



Type	External A	External B	External C	Internal D	Internal E	Internal F	Internal G	Fixings Lug Thick H	Fixings Lug Thick mm (in)	Fixings Lug Thick Ø
CMS3	388 (15.28)	440 (17.32)	318 (12.52)	300 (11.81)	270 (10.63)	180 (7.09)	200 (7.87)	370 (14.57)	7 (0.28)	16 (0.63)
CMS4	503 (19.80)	429 (16.89)	418 (16.46)	415 (16.34)	260 (10.24)	280 (11.02)	315 (12.40)	360 (14.17)	7 (0.28)	16 (0.63)
CMS5	503 (19.80)	554 (21.81)	418 (16.46)	415 (16.34)	385 (15.16)	280 (11.02)	315 (12.40)	485 (19.09)	7 (0.28)	16 (0.63)
CMS6	723 (28.46)	554 (21.81)	478 (18.82)	635 (25)	375 (14.76)	340 (13.39)	455 (17.91)	475 (18.70)	7 (0.28)	16 (0.63)
CMS7	723 (28.46)	745 (29.33)	478 (18.82)	635 (25)	575 (22.64)	340 (13.39)	470 (18.50)	675 (26.57)	7 (0.28)	16 (0.63)
CMS47	796 (31.34)	650 (25.59)	445 (17.52)	700 (27.56)	500 (19.69)	295 (11.61)	500 (19.69)	600 (23.62)	7 (0.28)	18 (0.71)
CMS43	796 (31.34)	750 (29.53)	445 (17.52)	700 (27.56)	600 (23.62)	295 (11.61)	500 (19.69)	700 (27.56)	7 (0.28)	18 (0.71)
CMS46	796 (31.34)	850 (33.46)	445 (17.52)	700 (27.56)	700 (27.56)	295 (11.61)	500 (19.69)	800 (31.50)	7 (0.28)	18 (0.71)
CMS44	896 (35.28)	650 (25.59)	445 (17.52)	800 (31.50)	500 (19.69)	295 (11.61)	600 (23.62)	600 (23.62)	7 (0.28)	18 (0.71)
CMS40	896 (35.28)	750 (29.53)	445 (17.52)	800 (31.50)	600 (23.62)	295 (11.61)	600 (23.62)	700 (27.56)	7 (0.28)	18 (0.71)
CMS42	896 (35.28)	850 (33.46)	445 (17.52)	800 (31.50)	700 (27.56)	295 (11.61)	600 (23.62)	800 (31.50)	7 (0.28)	18 (0.71)
CMS45	996 (39.21)	650 (25.59)	445 (17.52)	900 (35.43)	500 (19.69)	295 (11.61)	600 (23.62)	600 (23.62)	7 (0.28)	18 (0.71)
CMS41	996 (39.21)	750 (29.53)	445 (17.52)	900 (35.43)	600 (23.62)	295 (11.61)	600 (23.62)	700 (27.56)	7 (0.28)	18 (0.71)
CMS57	1125 (44.29)	730 (28.74)	452 (17.80)	1000 (39.37)	550 (21.65)	295 (11.61)	700 (27.56)	660 (25.98)	7 (0.28)	22 (0.87)
CMS52	1125 (44.29)	810 (31.89)	452 (17.80)	1000 (39.37)	630 (24.80)	295 (11.61)	700 (27.56)	740 (29.13)	7 (0.28)	22 (0.87)
CMS55	1125 (44.29)	880 (34.65)	452 (17.80)	1000 (39.37)	700 (27.56)	295 (11.61)	700 (27.56)	810 (31.89)	7 (0.28)	22 (0.87)
CMS53	1325 (52.17)	730 (28.74)	452 (17.80)	1200 (47.24)	550 (21.65)	295 (11.61)	900 (35.43)	660 (25.98)	7 (0.28)	22 (0.87)
CMS50	1325 (52.17)	810 (31.89)	452 (17.80)	1200 (47.24)	630 (24.80)	295 (11.61)	900 (35.43)	740 (29.13)	7 (0.28)	22 (0.87)
CMS54	1325 (52.17)	880 (34.65)	452 (17.80)	1200 (47.24)	700 (27.56)	295 (11.61)	900 (35.43)	810 (31.89)	7 (0.28)	22 (0.87)
CMS56	1525 (60.04)	730 (28.74)	452 (17.80)	1400 (55.12)	550 (21.65)	295 (11.61)	1100 (43.31)	660 (25.98)	7 (0.28)	22 (0.87)
CMS51	1525 (60.04)	810 (31.89)	452 (17.80)	1400 (55.12)	630 (24.80)	295 (11.61)	1100 (43.31)	740 (29.13)	7 (0.28)	22 (0.87)

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Nutsteel® NECM1 Junction Box

Explosionproof. Watertight

NBR IEC:
Zone 1 and 2
Ex d IIB
IP66



Applications

- Suitable for the connection electrical and electronic equipment in areas where there is risk of explosion, in industries such as:
  - — Chemical plants
  - — Petrochemical plants
  - — Paint and varnish facilities
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint spray booths
  - — Flammable product storage facilities

Features

- Hinges standard on model NECM1M3H0 up to model NECM1G6H0.
- Supplied with mounting plate for mounting components (except NECM1P1).
- Custom threaded entries provided. Specify location and size.
- The threaded entries specified must be connected with conduit sealing unit or explosionproof cable gland.
- To assure the appropriate level of safety and prevent the propagation of an explosion through the gap, we recommend fixing the cover with all of the screws tightened to the specified torque.
- For installation of equipment or components that generate heat, please consider temperature class, because heat can be a potential source of ignition.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- NPT and BSP threads: Ø 3/4” to Ø 4”. Metric threads: M16 to M100.

Standard Materials

- Body, cover and hinge: copperfree, diecast, aluminum alloy
- Screws and flat washers: AISI 304 stainless steel
- Mounting plate: zinc-plated steel
- O-Ring: silicone

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- Holes different from those specified may be provided, depending on the size of the box and the Ø of the cable entries. Contact your local sales representative.

NBR IEC Brazilian Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: According to the model
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1
- Other Standards: ABNT NBR IEC 60529 (IP)
- Ingress Protection (solid and liquid): IP66

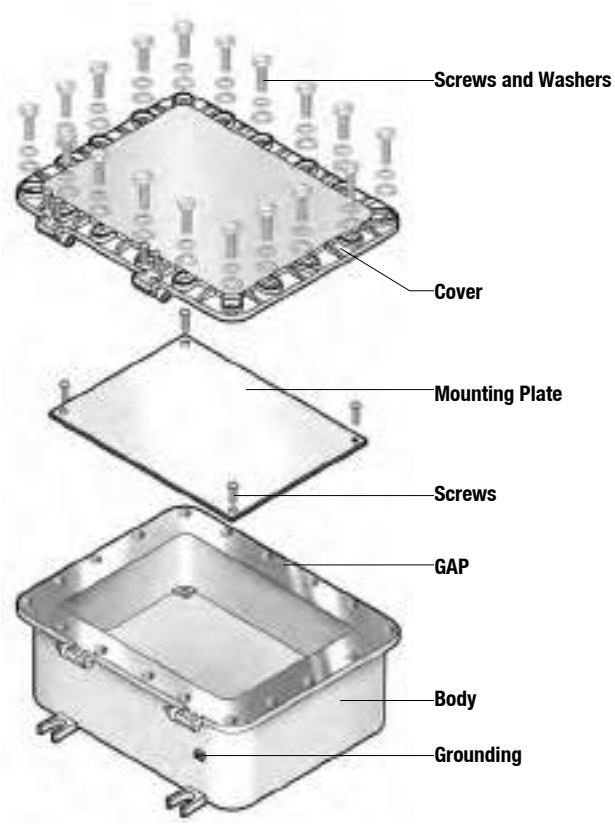
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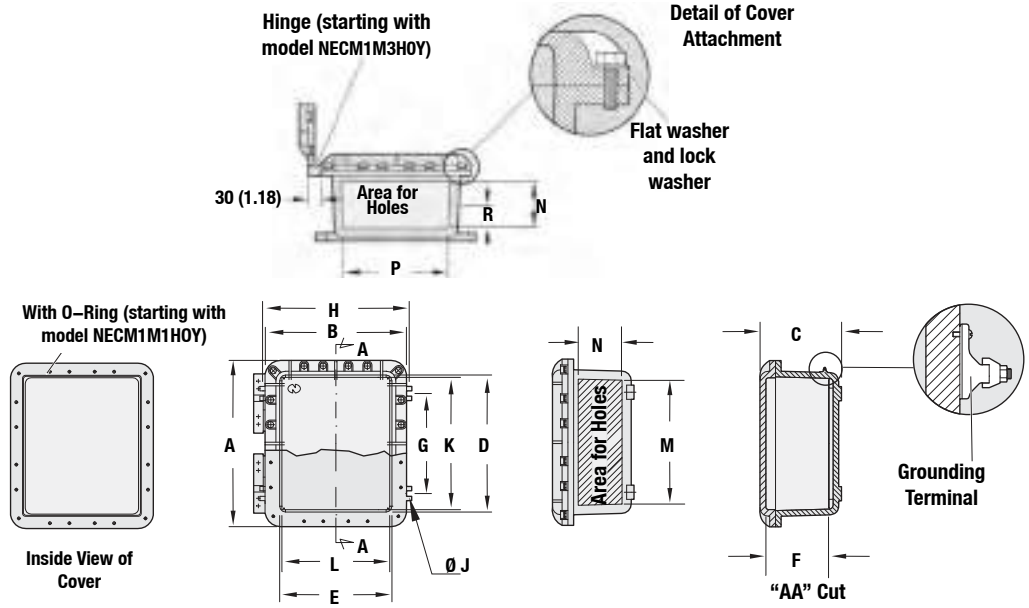
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Illustrated Features



Illustrated Dimensions



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Dimensions mm (in)															
External				Internal		Mounting Base			Mounting Plate			Area for Holes			Enclosure
A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Catalog Number ①
150 (5.91)	107 (4.21)	90 (3.54)	120 (4.72)	80 (3.15)	65 (2.56)	90 (3.54)	120 (4.72)	7 (0.28)	—	—	—	—	47 (1.85)	35 (1.38)	**NECM1P1H0F**
195 (7.68)	150 (5.91)	135 (5.31)	140 (5.51)	100 (3.94)	105 (4.13)	90 (3.54)	154 (6.06)	7 (0.28)	120 (4.72)	80 (3.15)	120 (4.72)	60 (2.36)	80 (3.15)	52 (2.05)	**NECM1P2H0F**
235 (9.25)	205 (8.07)	170 (6.69)	170 (6.69)	140 (5.51)	135 (5.31)	100 (3.94)	205 (8.07)	11 (0.43)	150 (5.91)	125 (4.92)	145 (5.71)	85 (3.35)	120 (4.72)	70 (2.76)	**NECM1P3H0F**
285 (11.22)	205 (8.07)	170 (6.69)	220 (8.66)	140 (5.51)	135 (5.31)	160 (6.30)	205 (8.07)	11 (0.43)	200 (7.87)	125 (4.92)	195 (7.68)	85 (3.35)	120 (4.72)	70 (2.76)	**NECM1P4H0F**
340 (13.39)	205 (8.07)	170 (6.69)	275 (10.83)	140 (5.51)	135 (5.31)	200 (7.87)	205 (8.07)	11 (0.43)	255 (10.04)	125 (4.92)	250 (9.84)	85 (3.35)	120 (4.72)	70 (2.76)	**NECM1P5H0F**
405 (15.94)	205 (8.07)	170 (6.69)	340 (13.39)	140 (5.51)	135 (5.31)	265 (10.43)	205 (8.07)	11 (0.43)	325 (12.80)	125 (4.92)	320 (12.60)	85 (3.35)	120 (4.72)	70 (2.76)	**NECM1P6H0F**
510 (20.08)	205 (8.07)	170 (6.69)	445 (17.52)	140 (5.51)	135 (5.31)	365 (14.37)	205 (8.07)	11 (0.43)	430 (16.93)	125 (4.92)	415 (16.34)	85 (3.35)	120 (4.72)	70 (2.76)	**NECM1P7H0F**
310 (12.20)	365 (14.37)	210 (8.27)	220 (8.66)	275 (10.83)	170 (6.69)	140 (5.51)	340 (13.39)	11 (0.43)	200 (7.87)	250 (9.84)	190 (7.48)	115 (4.53)	250 (9.84)	85 (3.35)	**NECM1M1H0F**
365 (14.37)	365 (14.37)	210 (8.27)	275 (10.83)	275 (10.83)	170 (6.69)	200 (7.87)	340 (13.39)	11 (0.43)	255 (10.04)	255 (10.04)	250 (9.84)	115 (4.53)	250 (9.84)	85 (3.35)	**NECM1M2H0F**
430 (16.93)	365 (14.37)	210 (8.27)	340 (13.39)	275 (10.83)	170 (6.69)	260 (10.24)	340 (13.39)	11 (0.43)	320 (12.60)	255 (10.04)	300 (11.81)	115 (4.53)	250 (9.84)	85 (3.35)	**NECM1M3H0F**
490 (19.29)	365 (14.37)	210 (8.27)	400 (15.75)	275 (10.83)	170 (6.69)	325 (12.80)	340 (13.39)	11 (0.43)	370 (14.57)	255 (10.04)	370 (14.57)	115 (4.53)	250 (9.84)	85 (3.35)	**NECM1M4H0F**
535 (21.06)	365 (14.37)	210 (8.27)	445 (17.52)	275 (10.83)	170 (6.69)	365 (14.37)	340 (13.39)	13 (0.51)	420 (16.54)	255 (10.04)	415 (16.34)	115 (4.53)	250 (9.84)	85 (3.35)	**NECM1M5H0F**
590 (23.23)	365 (14.37)	210 (8.27)	500 (19.69)	275 (10.83)	170 (6.69)	420 (16.54)	340 (13.39)	13 (0.51)	480 (18.90)	255 (10.04)	475 (18.70)	115 (4.53)	250 (9.84)	85 (3.35)	**NECM1M6H0F**
650 (25.59)	365 (14.37)	210 (8.27)	555 (21.85)	275 (10.83)	170 (6.69)	475 (18.70)	340 (13.39)	13 (0.51)	535 (21.06)	255 (10.04)	520 (20.47)	115 (4.53)	250 (9.84)	85 (3.35)	**NECM1M7H0F**
690 (27.17)	365 (14.37)	210 (8.27)	600 (23.62)	275 (10.83)	170 (6.69)	523 (20.59)	340 (13.39)	13 (0.51)	580 (22.83)	255 (10.04)	570 (22.44)	115 (4.53)	250 (9.84)	85 (3.35)	**NECM1M8H0F**
790 (31.10)	365 (14.37)	210 (8.27)	700 (27.56)	275 (10.83)	170 (6.69)	610 (24.02)	340 (13.39)	13 (0.51)	680 (26.77)	255 (10.04)	670 (26.38)	115 (4.53)	250 (9.84)	85 (3.35)	**NECM1M9H0F**
500 (19.69)	450 (17.72)	285 (11.22)	400 (15.75)	350 (13.78)	235 (9.25)	275 (10.83)	420 (16.54)	16 (0.63)	380 (14.96)	330 (12.99)	380 (14.96)	170 (6.69)	325 (12.80)	125 (4.92)	**NECM1G1H0F**
550 (21.65)	450 (17.72)	285 (11.22)	445 (17.52)	350 (13.78)	235 (9.25)	320 (12.60)	420 (16.54)	16 (0.63)	430 (16.93)	330 (12.99)	415 (16.34)	170 (6.69)	325 (12.80)	125 (4.92)	**NECM1G2H0F**
655 (25.79)	450 (17.72)	285 (11.22)	555 (21.85)	350 (13.78)	235 (9.25)	430 (16.93)	420 (16.54)	16 (0.63)	530 (20.87)	330 (12.99)	530 (20.87)	170 (6.69)	325 (12.80)	125 (4.92)	**NECM1G3H0F**
700 (27.56)	450 (17.72)	285 (11.22)	600 (23.62)	350 (13.78)	235 (9.25)	500 (19.69)	420 (16.54)	16 (0.63)	575 (22.64)	330 (12.99)	570 (22.44)	170 (6.69)	325 (12.80)	125 (4.92)	**NECM1G4H0F**
800 (31.50)	460 (18.11)	285 (11.22)	695 (27.36)	355 (13.98)	235 (9.25)	586 (23.07)	420 (16.54)	16 (0.63)	675 (26.57)	340 (13.39)	670 (26.38)	170 (6.69)	325 (12.80)	125 (4.92)	**NECM1G5H0F**
1010 (39.76)	515 (20.28)	365 (14.37)	895 (35.24)	405 (15.94)	305 (12.01)	780 (30.71)	475 (18.70)	16 (0.63)	865 (34.06)	375 (14.76)	840 (33.07)	220 (8.66)	360 (14.17)	140 (5.51)	**NECM1G6H0F**

① *The catalog numbers located above are for base enclosures without holes. See the Ordering Information on the following pages to create a customized drilled and threaded enclosure.*

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Enclosure Catalog Numbers	Ø Maximum	Screws Torque (kgf,m)	Screws Hex Head	Weight kg (lb)	External Volume dm^3 (in^3)
NECM1P1H0F	3/4”	0.50	7/16”	1.81 (3.99)	1.48 (90.3)
NECM1P2H0F	2”	0.50	7/16”	3.25 (7.17)	40.00 (244.1)
NECM1P3H0F	2-1/2”	0.50	7/16”	5.51 (12.15)	8.26 (504.1)
NECM1P4H0F	2-1/2”	0.50	7/16”	6.58 (14.51)	10.01 (610.8)
NECM1P5H0F	2-1/2”	0.50	7/16”	8.13 (17.92)	12.03 (734.1)
NECM1P6H0F	2-1/2”	0.50	7/16”	9.54 (21.03)	14.32 (873.9)
NECM1P7H0F	2-1/2”	0.50	7/16”	11.11 (24.49)	17.86 (1089.9)
NECM1M1H0F	3-1/2”	1.50	9/16”	15.81 (34.86)	25.64 (1564.6)
NECM1M2H0F	3-1/2”	1.50	9/16”	18.48 (40.74)	30.68 (1872.2)
NECM1M3H0F	3-1/2”	1.50	9/16”	23.00 (50.71)	36.02 (2198.1)
NECM1M4H0F	3-1/2”	1.50	9/16”	25.79 (56.86)	40.72 (2484.9)
NECM1M5H0F	3-1/2”	1.50	9/16”	28.76 (63.40)	44.32 (2704.6)
NECM1M6H0F	3-1/2”	1.50	9/16”	29.85 (65.81)	48.94 (2986.5)
NECM1M7H0F	3-1/2”	1.50	9/16”	31.20 (68.78)	54.24 (3309.9)
NECM1M8H0F	3-1/2”	1.50	9/16”	32.00 (70.55)	57.46 (3506.4)
NECM1M9H0F	3-1/2”	1.50	9/16”	38.22 (84.26)	66.11 (4034.3)
NECM1G1H0F	4”	1.50	9/16”	39.50 (87.08)	69.10 (4216.7)
NECM1G2H0F	4”	1.50	9/16”	46.41 (102.32)	75.39 (4600.6)
NECM1G3H0F	4”	1.50	9/16”	50.50 (111.33)	89.60 (5467.7)
NECM1G4H0F	4”	1.50	9/16”	55.30 (121.92)	97.24 (5933.9)
NECM1G5H0F	4”	1.50	9/16”	61.70 (136.03)	111.72 (6817.6)
NECM1G6H0F	4”	4.00	3/4”	118.40 (261.03)	201.32 (12285.3)

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Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NECM1P1H0F-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the “Specifying the Thread Size” table.
B. Specify the first hole positions using the letters A thru L in the “Hole and Enclosure Side Locations” diagram.
C. Verify size and number of hole limitations for the enclosure using the “Drilling Technical Data” on following page.

Step 3 A. Specify the second thread size using the symbol in the “Specifying the Thread Size” table.
B. Specify the second hole positions using the letters A thru L in the “Hole and Enclosure Side Locations” diagram.
C. Verify size and number of hole limitations for the enclosure using the “Drilling Technical Data” on following page.

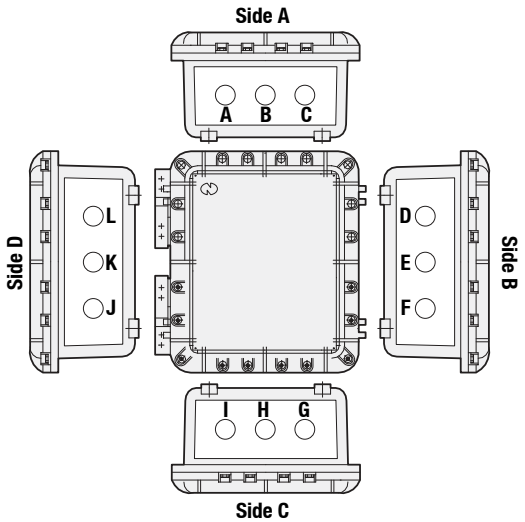
Step 1		Step 2		Step 3
NECM1P1H0F	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2” NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4” NPT; positions C, G and K)

Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

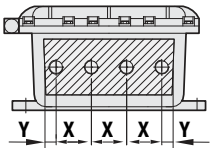
Hole and Enclosure Side Locations



Drilling Technical Data

Enclosure	Maximum Diameter Allowed Drilling
NECM1P1H0F	1/2" to 3/4"
NECM1P2H0F	1/2" to 2"
NECM1P3H0F	1/2" to 2-1/2"
NECM1P4H0F	1/2” to 2-1/2”
NECM1P5H0F	1/2” to 2-1/2”
NECM1P6H0F	1/2” to 2-1/2”
NECM1P7H0F	1/2” to 2-1/2”
NECM1M1H0F	1/2” to 3-1/2”
NECM1M2H0F	1/2” to 3-1/2”
NECM1M3H0F	1/2” to 3-1/2”
NECM1M4H0F	1/2” to 3-1/2”
NECM1M5H0F	1/2” to 3-1/2”
NECM1M6H0F	1/2” to 3-1/2”
NECM1M7H0F	1/2” to 3-1/2”
NECM1M8H0F	1/2” to 3-1/2”
NECM1M9H0F	1/2” to 3-1/2”
NECM1G1H0F	1/2” to 4”
NECM1G2H0F	1/2” to 4”
NECM1G3H0F	1/2” to 4”
NECM1G4H0F	1/2” to 4”
NECM1G5H0F	1/2” to 4”
NECM1G6H0F	1/2” to 4”

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Distance "X and Y"

Ø Nominal	1/2"	3/4"	1"	1–1/4"	1–1/2"	2"	2–1/2"	3"	3–1/2"	4"
Minimum Distance "X" Between Holes Without Union mm (in)										
1/2"	32 (1.26)	35 (1.38)	39 (1.54)	46 (1.81)	51 (2.01)	61 (2.40)	71 (2.80)	85 (3.35)	95 (3.74)	106 (4.17)
3/4"	35 (1.38)	37 (1.46)	42 (1.65)	49 (1.93)	54 (2.13)	64 (2.52)	74 (2.91)	88 (3.46)	98 (3.86)	109 (4.29)
1"	39 (1.54)	42 (1.65)	45 (1.77)	52 (2.05)	57 (2.24)	67 (2.64)	77 (3.03)	91 (3.58)	102 (4.02)	112 (4.41)
1-1/4"	46 (1.81)	49 (1.93)	52 (2.05)	57 (2.24)	62 (2.44)	72 (2.83)	82 (3.23)	96 (3.78)	106 (4.17)	117 (4.61)
1-1/2"	51 (2.01)	54 (2.13)	57 (2.24)	62 (2.44)	65 (2.56)	75 (2.95)	85 (3.35)	99 (3.90)	109 (4.29)	120 (4.72)
2"	61 (2.40)	64 (2.52)	67 (2.64)	72 (2.83)	75 (2.95)	81 (3.19)	91 (3.58)	105 (4.13)	115 (4.53)	126 (4.96)
2-1/2"	71 (2.80)	74 (2.91)	77 (3.03)	82 (3.23)	85 (3.35)	91 (3.58)	97 (3.82)	111 (4.37)	121 (4.76)	132 (5.20)
3"	85 (3.35)	88 (3.46)	91 (3.58)	96 (3.78)	99 (3.90)	105 (4.13)	111 (4.37)	119 (4.69)	130 (5.12)	140 (5.51)
3-1/2"	95 (3.74)	98 (3.86)	102 (4.02)	106 (4.17)	109 (4.29)	115 (4.53)	121 (4.76)	130 (5.12)	136 (5.35)	147 (5.79)
4"	106 (4.17)	109 (4.29)	112 (4.41)	117 (4.61)	120 (4.72)	126 (4.96)	132 (5.20)	140 (5.51)	147 (5.79)	152 (5.98)
Minimum Distance "X" Between Holes With Union mm (in)										
1/2"	60 (2.36)	66 (2.60)	70 (2.76)	77 (3.03)	79 (3.11)	89 (3.50)	89 (3.46)	109 (4.29)	118 (4.65)	126 (4.96)
3/4"	66 (2.60)	72 (2.83)	76 (2.99)	83 (3.27)	85 (3.35)	95 (3.74)	104 (4.09)	110 (4.33)	124 (4.88)	134 (5.28)
1"	70 (2.76)	76 (2.99)	79 (3.11)	86 (3.39)	89 (3.50)	99 (3.90)	108 (4.25)	118 (4.65)	127 (5.00)	135 (5.31)
1-1/4"	77 (3.03)	83 (3.27)	86 (3.39)	91 (3.58)	96 (3.78)	106 (4.17)	115 (4.53)	125 (4.92)	134 (5.28)	142 (5.59)
1-1/2"	79 (3.11)	85 (3.35)	89 (3.50)	96 (3.78)	98 (3.86)	108 (4.25)	117 (4.61)	128 (5.04)	137 (5.39)	145 (5.71)
2"	89 (3.50)	95 (3.74)	99 (3.90)	106 (4.17)	108 (4.25)	118 (4.65)	127 (5.00)	138 (5.43)	147 (5.79)	155 (6.10)
2-1/2"	89 (3.46)	104 (4.09)	108 (4.25)	115 (4.53)	117 (4.61)	127 (5.00)	136 (5.35)	147 (5.79)	156 (6.14)	164 (6.46)
3"	109 (4.29)	110 (4.33)	118 (4.65)	125 (4.92)	128 (5.04)	138 (5.43)	147 (5.79)	157 (6.18)	166 (6.54)	174 (6.85)
3-1/2"	118 (4.65)	124 (4.88)	127 (5.00)	134 (5.28)	137 (5.39)	147 (5.79)	156 (6.14)	166 (6.54)	175 (6.89)	183 (7.20)
4"	126 (4.96)	134 (5.28)	135 (5.31)	142 (5.59)	145 (5.71)	155 (6.10)	164 (6.46)	174 (6.85)	183 (7.20)	191 (7.52)
Minimum Distance "X" Between Holes with Cable Glands mm (in)										
1/2"	60 (2.36)	66 (2.60)	70 (2.76)	77 (3.03)	79 (3.11)	89 (3.50)	89 (3.46)	109 (4.29)	118 (4.65)	126 (4.96)
3/4"	66 (2.60)	72 (2.83)	76 (2.99)	83 (3.27)	85 (3.35)	95 (3.74)	104 (4.09)	110 (4.33)	124 (4.88)	134 (5.28)
1"	70 (2.76)	76 (2.99)	79 (3.11)	86 (3.39)	89 (3.50)	99 (3.90)	108 (4.25)	118 (4.65)	127 (5.00)	135 (5.31)
1-1/4"	77 (3.03)	83 (3.27)	86 (3.39)	91 (3.58)	96 (3.78)	106 (4.17)	115 (4.53)	125 (4.92)	134 (5.28)	142 (5.59)
1-1/2"	79 (3.11)	85 (3.35)	89 (3.50)	96 (3.78)	98 (3.86)	108 (4.25)	117 (4.61)	128 (5.04)	137 (5.39)	145 (5.71)
2"	89 (3.50)	95 (3.74)	99 (3.90)	106 (4.17)	108 (4.25)	118 (4.65)	127 (5.00)	138 (5.43)	147 (5.79)	155 (6.10)
2-1/2"	89 (3.46)	104 (4.09)	108 (4.25)	115 (4.53)	117 (4.61)	127 (5.00)	136 (5.35)	147 (5.79)	156 (6.14)	164 (6.46)
3"	109 (4.29)	110 (4.33)	118 (4.65)	125 (4.92)	128 (5.04)	138 (5.43)	147 (5.79)	157 (6.18)	166 (6.54)	174 (6.85)
3-1/2"	118 (4.65)	124 (4.88)	127 (5.00)	134 (5.28)	137 (5.39)	147 (5.79)	156 (6.14)	166 (6.54)	175 (6.89)	183 (7.20)
4"	126 (4.96)	134 (5.28)	135 (5.31)	142 (5.59)	145 (5.71)	155 (6.10)	164 (6.46)	174 (6.85)	183 (7.20)	191 (7.52)
Distance "Y" mm (in)										
	11 (0.43)	13 (0.51)	17 (0.67)	21 (0.83)	24 (0.94)	30 (1.18)	36 (1.42)	44 (1.73)	51 (2.01)	57 (2.24)

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Nutsteel® NECM2 Series Customized Enclosures

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

Applications

- Corrosion-resistant: ideal indoors or outdoors.
- Junction or pull box for pulling and splicing of wires and as an enclosure for electrical devices.
- Ideal where number and size of conductors require a junction box with additional space.
- Suitable for assembling electrical and electronic equipment and components in hazardous areas.
- Provides access for maintenance and electrical wiring inspection.
- Ideal for use where there is a risk of explosion in industries such as:
  - — Chemical plants
  - — Petrochemical plants
  - — Paint and varnish facilities
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint spray booths
  - — Flammable product storage facilities
- Custom entries provided. Specify location and size.

Features

- Threaded cover, including threaded hubs on the sides and cover, as required.
- Mounting plate and external grounding terminal.
- Custom made enclosure is delivered sealed and assembled with specified components.
- Threaded entries provided. Specify location and size.
- Internal components of the enclosure are arranged to meet ABNT NBR IEC Standard 60079-1.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.
- NPT and BSP threads: Ø 1/2" to Ø 4". Metric threads: M16 to M100.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws: AISI 304 stainless steel
- Mounting plate: electroplated steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- Custom drilling configurations available upon request. Contact your local sales representative.
- Holes different from those specified may be provided, depending on the size of the box and the Ø of the cable entries. Contact your local sales representative.



NBR IEC Brazilian Certifications and Compliances

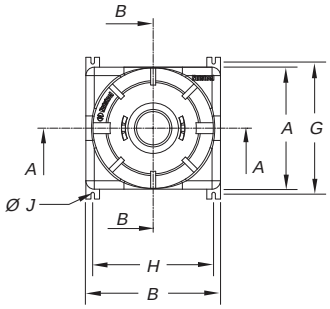
- Certification Type NECM2
  - — IEC Marking: Ex d IIC Gb, Ex tb IIIC Db
  - — INMETRO Certificate: BVC 09.9870, BVC 09.9872, BVC 09.9874, BVC 09.9889
  - — Ingress Protection (solid and liquid): IP66
- Certification Type NECM2-U ①
  - — IEC Marking: Ex d IIC Gb, Ex tb IIIC Db
  - — INMETRO Certificate: BVC 09.9882-U, BVC 09.9871-U, BVC 09.9873-U, BVC 09.9875-U
- INMETRO Ordinance: 179
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- Others Standards: ABNT NBR IEC 60529 (IP)

① Component Certification bears a suffix "U". Any arrangement, internal or external, of accessories or holes on the box different of those specified in this certificate, must be submitted to a Certification Organization to have the complete unit certified.

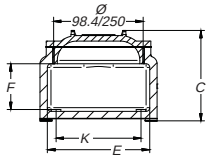
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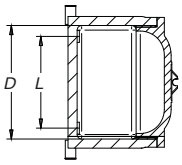
Standard Enclosure With No Holes



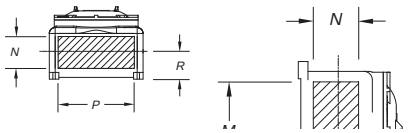
A–A Cut



B–B Cut



Area for Holes



Ø	Dimensions mm (in) External				Internal		Mounting Base			Mounting Plate			Area for Holes			Weight	Volume dm³	Catalog
máx.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	kg (lb)	(in³)	Number ①
2" M50	182 (7.17)	168 (6.61)	161 (6.34)	146 (5.75)	160 (6.30)	90 (3.54)	196 (7.72)	154 (6.06)	9.5 (0.37)	120 (4.72)	140 (5.51)	160 (6.30)	68 (2.68)	162 (6.38)	49 (1.93)	4.5 (9.9)	4.9 (299)	**NECM2P2H00**
3-1/2" M90	265 (10.43)	255 (10.04)	214 (8.43)	230 (9.06)	230 (9.06)	105 (4.13)	279 (10.98)	230 (9.06)	10 (0.39)	170 (6.69)	210 (8.27)	180 (7.09)	110 (4.33)	220 (8.66)	78 (3.07)	11 (24.2)	12.7 (775)	**NECM2M1H00**
3-1/2" M90	290 (11.42)	320 (12.60)	247 (9.72)	250 (9.84)	280 (11.02)	125 (4.92)	313 (12.32)	288 (11.34)	8 (0.31)	230 (9.06)	250 (9.84)	150 (5.91)	110 (4.33)	260 (10.24)	95 (3.74)	21 (46.2)	22.9 (1397)	**NECM2G1H00**
4" M100	480 (18.90)	480 (18.90)	350 (13.78)	440 (17.32)	440 (17.32)	200 (7.87)	524 (20.63)	363 (14.29)	14 (0.55)	415 (16.34)	415 (16.34)	429 (16.89)	209 (8.23)	429 (16.89)	160 (6.30)	61 (134.2)	80.6 (4919)	**NECM2G2H00**

① *The catalog numbers located above are for base enclosures without holes. See the Ordering Information on the following pages to create a customized drilled and threaded enclosure.*

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NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIC Gb
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IP66

Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NECM2M1H00-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 1		Step 2		Step 3
NECM2M2H00	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

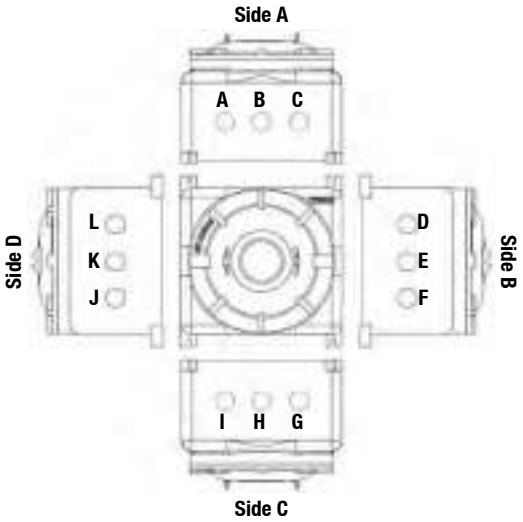
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50
07M	M63
08M	M75
09M	M90
10M	M100

Hole and Enclosure Side Locations



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IP66

Drilling Technical Data

Enclosure	Maximum Diameter Allowed Drilling	Maximum Area Removed mm² (in²) Side (A and C)	Side (B and D)
NECM2P2	1/2" to 2" - M16 to M50	2858 (4.43)	2858 (4.43)
NECM2M1	1/2" to 3-1/2" - M16 to M90	8375 (12.98)	8107 (12.57)
NECM2G1	1/2" to 3-1/2" - M16 to M90	16214 (25.13)	12414 (19.24)
NECM2G2	1/2" to 4" - M16 to M100	89870 (139.30)	89870 (139.30)

Entry Diameter	Removed Area Per Entry mm² (in²) BSP	NPT	Metric Thread Entry Diameter	Removed Area Per Entry mm² (in²)
1/2"	344 (0.53)	357 (0.55)	M16	201 (0.31)
3/4"	549 (0.85)	558 (0.86)	M20	314 (0.49)
1"	868 (1.35)	876 (1.36)	M25	490 (0.76)
1-1/4"	1379 (2.14)	1395 (2.16)	M32	804 (1.25)
1-1/2"	1794 (2.78)	1829 (2.83)	M40	1256 (1.95)
2"	2790 (4.32)	2857 (4.43)	M50	1963 (3.04)
2-1/2"	4439 (6.88)	4187 (6.49)	M63	3117 (4.83)
3"	6065 (9.40)	6207 (9.62)	M75	4417 (6.85)
3-1/2"	7905 (12.25)	8107 (12.57)	M90	6361 (9.86)
4"	10033 (15.55)	10260 (15.90)	M100	7853 (12.17)

Example of Acceptable and Unacceptable Drilling Requests — NECM2M1

Requested Drilling: 3 Entries 1/2" NPT — Side "A"

Acceptable:

3 X 357 mm² (0.55 in²)	=	1071 mm² (1.66 in²) < 8376 mm² (12.98 in²)
Maximum Area Removed per Entry		Maximum Area Removed per Side ("A" and "C")

Requested Drilling: 4 Entries 3–1/2" NPT — Side "A"

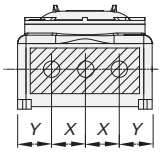
Unacceptable:

4 X 8107 mm² (12.57 in²)	=	32428 mm² < 8376 mm² (50.26 in² < 12.98 in²)
Maximum Area Removed per Entry		Maximum Area Removed per Side ("A" and "C")

Thread Equivalence

NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

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Distance "X and Y"

Ø Nominal	1)2"	3)4"	1"	1–1)4"	1–1)2"	2"	2–1)2"	3"	3–1)2"	4"
Minimum Distance "X" Between Holes Without Union mm (in)										
1/2"	32 (1.26)	35 (1.38)	39 (1.54)	46 (1.81)	51 (2.01)	61 (2.40)	71 (2.80)	85 (3.35)	95 (3.74)	106 (4.17)
3/4"	35 (1.38)	37 (1.46)	42 (1.65)	49 (1.93)	54 (2.13)	64 (2.52)	74 (2.91)	88 (3.46)	98 (3.86)	109 (4.29)
1"	39 (1.54)	42 (1.65)	45 (1.77)	52 (2.05)	57 (2.24)	67 (2.64)	77 (3.03)	91 (3.58)	102 (4.02)	112 (4.41)
1-1/4"	46 (1.81)	49 (1.93)	52 (2.05)	57 (2.24)	62 (2.44)	72 (2.83)	82 (3.23)	96 (3.78)	106 (4.17)	117 (4.61)
1-1/2"	51 (2.01)	54 (2.13)	57 (2.24)	62 (2.44)	65 (2.56)	75 (2.95)	85 (3.35)	99 (3.90)	109 (4.29)	120 (4.72)
2"	61 (2.40)	64 (2.52)	67 (2.64)	72 (2.83)	75 (2.95)	81 (3.19)	91 (3.58)	105 (4.13)	115 (4.53)	126 (4.96)
2-1/2"	71 (2.80)	74 (2.91)	77 (3.03)	82 (3.23)	85 (3.35)	91 (3.58)	97 (3.82)	111 (4.37)	121 (4.76)	132 (5.20)
3"	85 (3.35)	88 (3.46)	91 (3.58)	96 (3.78)	99 (3.90)	105 (4.13)	111 (4.37)	119 (4.69)	130 (5.12)	140 (5.51)
3-1/2"	95 (3.74)	98 (3.86)	102 (4.02)	106 (4.17)	109 (4.29)	115 (4.53)	121 (4.76)	130 (5.12)	136 (5.35)	147 (5.79)
4"	106 (4.17)	109 (4.29)	112 (4.41)	117 (4.61)	120 (4.72)	126 (4.96)	132 (5.20)	140 (5.51)	147 (5.79)	152 (5.98)
Minimum Distance "X" Between Holes With Union mm (in)										
1/2"	60 (2.36)	66 (2.60)	70 (2.76)	77 (3.03)	79 (3.11)	89 (3.50)	88 (3.46)	109 (4.29)	118 (4.65)	126 (4.96)
3/4"	66 (2.60)	147 (5.79)	76 (2.99)	83 (3.27)	85 (3.35)	95 (3.74)	104 (4.09)	110 (4.33)	124 (4.88)	134 (5.28)
1"	70 (2.76)	76 (2.99)	79 (3.11)	86 (3.39)	89 (3.50)	99 (3.90)	108 (4.25)	118 (4.65)	127 (5.00)	135 (5.31)
1-1/4"	77 (3.03)	83 (3.27)	86 (3.39)	91 (3.58)	96 (3.78)	106 (4.17)	115 (4.53)	125 (4.92)	134 (5.28)	142 (5.59)
1-1/2"	79 (3.11)	85 (3.35)	89 (3.50)	96 (3.78)	98 (3.86)	108 (4.25)	117 (4.61)	128 (5.04)	137 (5.39)	145 (5.71)
2"	89 (3.50)	95 (3.74)	99 (3.90)	106 (4.17)	108 (4.25)	118 (4.65)	127 (5.00)	138 (5.43)	147 (5.79)	155 (6.10)
2-1/2"	88 (3.46)	104 (4.09)	108 (4.25)	115 (4.53)	117 (4.61)	127 (5.00)	136 (5.35)	147 (5.79)	156 (6.14)	164 (6.46)
3"	109 (4.29)	110 (4.33)	118 (4.65)	125 (4.92)	128 (5.04)	138 (5.43)	147 (5.79)	157 (6.18)	166 (6.54)	174 (6.85)
3-1/2"	118 (4.65)	124 (4.88)	127 (5.00)	134 (5.28)	137 (5.39)	147 (5.79)	156 (6.14)	166 (6.54)	175 (6.89)	183 (7.20)
4"	126 (4.96)	134 (5.28)	135 (5.31)	142 (5.59)	145 (5.71)	155 (6.10)	164 (6.46)	174 (6.85)	183 (7.20)	191 (7.52)
Minimum Distance "X" Between Holes with Cable Glands mm (in)										
1/2"	60 (2.36)	66 (2.60)	70 (2.76)	77 (3.03)	79 (3.11)	89 (3.50)	88 (3.46)	109 (4.29)	118 (4.65)	126 (4.96)
3/4"	66 (2.60)	5.79)147	76 (2.99)	83 (3.27)	85 (3.35)	95 (3.74)	104 (4.09)	110 (4.33)	124 (4.88)	134 (5.28)
1"	70 (2.76)	76 (2.99)	79 (3.11)	86 (3.39)	89 (3.50)	99 (3.90)	108 (4.25)	118 (4.65)	127 (5.00)	135 (5.31)
1-1/4"	77 (3.03)	83 (3.27)	86 (3.39)	91 (3.58)	96 (3.78)	106 (4.17)	115 (4.53)	125 (4.92)	134 (5.28)	142 (5.59)
1-1/2"	79 (3.11)	85 (3.35)	89 (3.50)	96 (3.78)	98 (3.86)	108 (4.25)	117 (4.61)	128 (5.04)	137 (5.39)	145 (5.71)
2"	89 (3.50)	95 (3.74)	99 (3.90)	106 (4.17)	108 (4.25)	118 (4.65)	127 (5.00)	138 (5.43)	147 (5.79)	155 (6.10)
2-1/2"	88 (3.46)	104 (4.09)	108 (4.25)	115 (4.53)	117 (4.61)	127 (5.00)	136 (5.35)	147 (5.79)	156 (6.14)	164 (6.46)
3"	109 (4.29)	110 (4.33)	118 (4.65)	125 (4.92)	128 (5.04)	138 (5.43)	147 (5.79)	157 (6.18)	166 (6.54)	174 (6.85)
3-1/2"	118 (4.65)	124 (4.88)	127 (5.00)	134 (5.28)	137 (5.39)	147 (5.79)	156 (6.14)	166 (6.54)	175 (6.89)	183 (7.20)
4"	126 (4.96)	134 (5.28)	135 (5.31)	142 (5.59)	145 (5.71)	155 (6.10)	164 (6.46)	174 (6.85)	183 (7.20)	191 (7.52)
Distance "Y" mm (in)										
	11 (0.43)	13 (0.51)	17 (0.67)	21 (0.83)	24 (0.94)	30 (1.18)	36 (1.42)	44 (1.73)	51 (2.01)	57 (2.24)

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Nutsteel® NEJQ Junction Box

Explosionproof. Watertight

NBR IEC:
Zone 1 and 2
Ex de IIB Gb
IP65

Applications

- Suitable for the connection of wires and cables in areas where there is risk of explosion, in industries such as:
  — Chemicals processing
  — Petrochemical manufacturing
  — Paint and varnish manufacturing
  — Pharmaceutical manufacturing
  — Food product facilities
  — Paint booths
  — Flammable product storage facilities
- Ideal for wet and corrosives atmospheres.



Features

- Cover fixed to the body by hinges.
- Supplied assembled with terminal block.
- Custom threaded entries provided. Specify location and size.
- One-pole terminal, for cables:
  – 26 A/750 Vac: 0.5 thru 2.5 mm^2 (0.0007 thru 0.0038 in^2)
  – 34 A/750 Vac: 4 mm^2 (0.0062 in^2)
- Cable glands sold separately.
- Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.
- To assure the appropriate level of safety and prevent the propagation of an explosion through the gap, we recommend fixing the cover with all of the screws tightened to the specified torque.
- Ex de: Flameproof method of protection suitable for Zone 1 and 2.
- NPT and BSP threads: Ø 3/4” to Ø 4”. Metric threads: M16 to M100.

Standard Materials

- Body, cover and hinge: copperfree, diecast, aluminum alloy
- Screws and washers: AISI 304 stainless steel
- Terminal: polyamide

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NEJQ02112**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 10th position; example: NEJQ02112**M**.
- Holes different from those specified may be provided, depending on the size of the box and the Ø of the cable entries. Contact your local sales representative.

NBR IEC Brazilian Certifications and Compliances

- INMETRO Ordinance: 179
- INMETRO Certificate: TÜV 12.0432
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1
- Others Standards: ABNT NBR IEC 60529 (IP)
- T Rating: T5
- Ingress Protection (solid and liquid): IP65W

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Quantity		Terminal		Max. No. Holes per Side 3/4" Thread ①		Screws		
Terminal Blocks	Number of Terminals	Nominal Section mm² (in²)	Pitch mm (in)	Top/Bottom	Left/Right	Torque (kgf.m)	Hex Head	Catalog Number ②
1	12	0.5 - 2.5 (0.0008 - 0.004)	6.0 (0.24)	2	3	0.5	7/16"	**NEJQ02112N**
1	12	0.5 - 4.0 (0.0008 - 0.006)	6.5 (0.26)	2	3	0.5	7/16"	**NEJQ04112N**
1	24	0.5 - 2.5 (0.0008 - 0.004)	6.0 (0.24)	8	8	1.5	9/16"	**NEJQ02124N**
1	24	0.5 - 4.0 (0.0008 - 0.006)	6.5 (0.26)	8	8	1.5	9/16"	**NEJQ04124N**
1	36	0.5 - 2.5 (0.0008 - 0.004)	6.0 (0.24)	8	10	1.5	9/16"	**NEJQ02136N**
1	36	0.5 - 4.0 (0.0008 - 0.006)	6.5 (0.26)	8	10	1.5	9/16"	**NEJQ04136N**
1	48	0.5 - 2.5 (0.0008 - 0.004)	6.0 (0.24)	8	12	1.5	9/16"	**NEJQ02148N**
1	48	0.5 - 4.0 (0.0008 - 0.006)	6.5 (0.26)	8	14	1.5	9/16"	**NEJQ04148N**
1	72	0.5 - 2.5 (0.0008 - 0.004)	6.0 (0.24)	8	18	1.5	9/16"	**NEJQ02172N**
1	72	0.5 - 4.0 (0.0008 - 0.006)	6.5 (0.26)	8	18	1.5	9/16"	**NEJQ04172N**
2	72	0.5 - 2.5 (0.0008 - 0.004)	6.0 (0.24)	10	10	1.5	9/16"	**NEJQ02236N**
2	72	0.5 - 4.0 (0.0008 - 0.006)	6.5 (0.26)	10	10	1.5	9/16"	**NEJQ04236N**
2	96	0.5 - 2.5 (0.0008 - 0.004)	6.0 (0.24)	10	12	1.5	9/16"	**NEJQ02248N**
2	96	0.5 - 4.0 (0.0008 - 0.006)	6.5 (0.26)	10	14	1.5	9/16"	**NEJQ04248N**
2	144	0.5 - 2.5 (0.0008 - 0.004)	6.0 (0.24)	10	16	1.5	9/16"	**NEJQ02272N**
2	144	0.5 - 4.0 (0.0008 - 0.006)	6.5 (0.26)	10	18	1.5	9/16"	**NEJQ04272N**

① The number of holes indicated corresponds to the maximum number of holes allowed on each side, as shown in the drawing. When ordering, please indicate the number of holes and diameter desired on each side.

*② For BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NEJQ02112**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 10th position; example: NEJQ02112**M**.*

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Nutsteel® NEJQ Junction Box

Explosionproof. Watertight

NBR IEC:
Zone 1 and 2
Ex de IIB Gb
IP65

Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NEJQ02112N-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the “Specifying the Thread Size” table.
B. Specify the first hole positions using the letters A thru L in the “Hole and Enclosure Side Locations” diagram.
C. Verify size and number of hole limitations for the enclosure using the “Drilling Technical Data” on following page.

Step 3 A. Specify the second thread size using the symbol in the “Specifying the Thread Size” table.
B. Specify the second hole positions using the letters A thru L in the “Hole and Enclosure Side Locations” diagram.
C. Verify size and number of hole limitations for the enclosure using the “Drilling Technical Data” on following page.

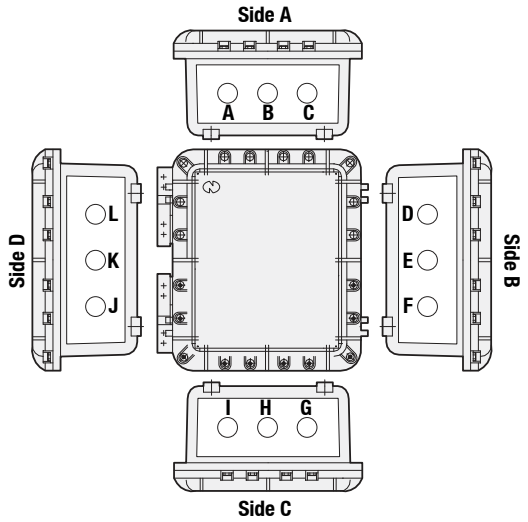
Step 1		Step 2		Step 3
NEJQ02112N	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2” NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4” NPT; positions C, G and K)

Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

Hole and Enclosure Side Locations



Drilling Technical Data

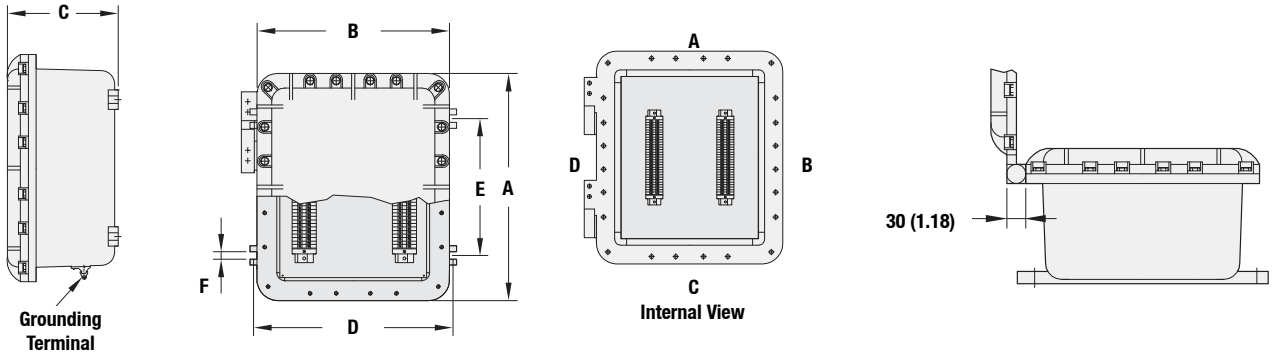
Enclosure	Maximum Diameter Allowed Drilling
NEJQ02112N	1/2" to 2"
NEJQ04112N	1/2” to 3-1/2”
NEJQ02124N	1/2” to 3-1/2”
NEJQ04124N	1/2” to 3-1/2”
NEJQ02136N	1/2” to 3-1/2”
NEJQ04136N	1/2” to 3-1/2”
NEJQ02148N	1/2” to 3-1/2”
NEJQ04148N	1/2” to 3-1/2”
NEJQ02172N	1/2” to 3-1/2”
NEJQ04172N	1/2” to 3-1/2”
NEJQ02236N	1/2” to 4”
NEJQ04236N	1/2” to 4”
NEJQ02248N	1/2” to 4”
NEJQ04248N	1/2” to 4”
NEJQ02272N	1/2” to 4”
NEJQ04272N	1/2” to 4”

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Nutsteel® NEJQ Junction Box

Explosionproof. Watertight

Dimensions in Millimeters (Inches)



Catalog Number	External A	External B	External C	Mounting Base D	Mounting Base E	F	Weight kg (lb)	Volume dm^3 (in^3)
NEJQ02112N	285 (11.22)	205 (8.07)	170 (6.69)	205 (8.07)	160 (6.30)	11 (0.43)	6.71 (14.79)	10.01 (610.8)
NEJQ04112N	340 (13.39)	205 (8.07)	170 (6.69)	205 (8.07)	200 (7.87)	11 (0.43)	8.60 (18.96)	12.00 (732.3)
NEJQ02124N	430 (16.93)	365 (14.37)	210 (8.27)	340 (13.39)	260 (10.24)	11 (0.43)	23.25 (51.26)	36.00 (2196.9)
NEJQ04124N	490 (19.29)	365 (14.37)	210 (8.27)	340 (13.39)	325 (12.80)	11 (0.43)	26.00 (57.32)	40.72 (2484.9)
NEJQ02136N	535 (21.06)	365 (14.37)	210 (8.27)	340 (13.39)	365 (14.37)	13 (0.51)	29.00 (63.93)	44.30 (2703.4)
NEJQ04136N	535 (21.06)	365 (14.37)	210 (8.27)	340 (13.39)	365 (14.37)	13 (0.51)	29.00 (63.93)	44.30 (2703.4)
NEJQ02148N	590 (23.23)	365 (14.37)	210 (8.27)	340 (13.39)	420 (16.54)	13 (0.51)	30.00 (66.14)	48.90 (2984.1)
NEJQ04148N	650 (25.59)	365 (14.37)	210 (8.27)	340 (13.39)	475 (18.70)	13 (0.51)	31.82 (70.15)	54.25 (3310.5)
NEJQ02172N	790 (31.10)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	13 (0.51)	38.96 (85.89)	66.11 (4034.3)
NEJQ04172N	790 (31.10)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	13 (0.51)	38.96 (85.89)	66.11 (4034.3)
NEJQ02236N	550 (21.65)	450 (17.72)	285 (11.22)	420 (16.54)	320 (12.60)	16 (0.63)	46.40 (102.29)	75.40 (4601.2)
NEJQ04236N	550 (21.65)	450 (17.72)	285 (11.22)	420 (16.54)	320 (12.60)	16 (0.63)	46.50 (102.51)	75.40 (4601.2)
NEJQ02248N	655 (25.79)	450 (17.72)	285 (11.22)	420 (16.54)	430 (16.93)	16 (0.63)	50.50 (111.33)	89.60 (5467.7)
NEJQ04248N	655 (25.79)	450 (17.72)	285 (11.22)	420 (16.54)	430 (16.93)	16 (0.63)	50.72 (111.82)	89.60 (5467.7)
NEJQ02272N	800 (31.50)	460 (18.11)	285 (11.22)	420 (16.54)	586 (23.07)	16 (0.63)	62.70 (138.23)	111.72 (6817.6)
NEJQ04272N	800 (31.50)	460 (18.11)	285 (11.22)	420 (16.54)	586 (23.07)	16 (0.63)	63.00 (138.89)	111.72 (6817.6)

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Nutsteel® NTJC Junction Box

Weatherproof. Watertight

NBR IEC:
IP65



Applications

- Suitable for connection of wires and cables in areas containing non-flammable gases, fumes, and moisture.
- Designed to facilitate electrical connections in weatherproof areas.

Features

- Assembled with terminal block.
- Provided with one-pole terminal block for cables – 24 A/400 Vac 0.5 - 2.5 mm² (0.00077 to 0.0038 in²).
- Cover secured to the body with screws.
- Sealing gasket provided to ensure a watertight seal.
- NPT and BSP threads: Ø 1/2" to Ø 1". Metric threads: M16 to M32.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws and flat washers: AISI 304 stainless steel
- Terminal block: polyamide
- Sealing gasket: nitrile

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

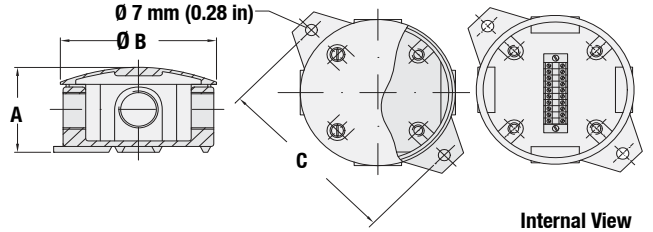
Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NTJC02101**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 10th position; example: NTJC02101**M**.

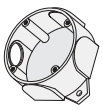
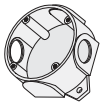
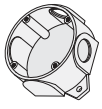
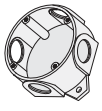
NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP65
- Other Standards: NBR ABNT IEC 60529 (IP)

Dimensions mm (in)



Internal View

		Terminal Block	Ø	Dimensions mm (in)			Weight	Volume	Catalog
	Quantity	Range mm² (in²)	Thread	A	B	C	kg (lb)	dm³ (in³)	Number
Type E 	5	0.0008 - 0.004 (0.5 - 2.5)	1/2"	74 (2.91)	98 (3.86)	104 (4.09)	0.40 (0.88)	0.73 (44.5)	**NTJC02101N**
	7	0.0008 - 0.004 (0.5 - 2.5)	3/4"	85 (3.35)	108 (4.25)	112 (4.41)	0.51 (1.12)	0.91 (55.5)	**NTJC02201N**
	10	0.0008 - 0.004 (0.5 - 2.5)	1"	100 (3.94)	127 (5.00)	138 (5.43)	0.80 (1.76)	1.54 (94.0)	**NTJC02301N**
Type C 	5	0.0008 - 0.004 (0.5 - 2.5)	1/2"	74 (2.91)	98 (3.86)	104 (4.09)	0.38 (0.84)	0.73 (44.5)	**NTJC02102N**
	7	0.0008 - 0.004 (0.5 - 2.5)	3/4"	85 (3.35)	108 (4.25)	112 (4.41)	0.50 (1.10)	0.91 (55.5)	**NTJC02202N**
	10	0.0008 - 0.004 (0.5 - 2.5)	1"	100 (3.94)	127 (5.00)	138 (5.43)	0.77 (1.70)	1.54 (94.0)	**NTJC02302N**
Type L 	5	0.0008 - 0.004 (0.5 - 2.5)	1/2"	74 (2.91)	98 (3.86)	104 (4.09)	0.38 (0.84)	0.73 (44.5)	**NTJC02103N**
	7	0.0008 - 0.004 (0.5 - 2.5)	3/4"	85 (3.35)	108 (4.25)	112 (4.41)	0.50 (1.10)	0.91 (55.5)	**NTJC02203N**
	10	0.0008 - 0.004 (0.5 - 2.5)	1"	100 (3.94)	127 (5.00)	138 (5.43)	0.77 (1.70)	1.54 (94.0)	**NTJC02203N**
Type T 	5	0.0008 - 0.004 (0.5 - 2.5)	1/2"	74 (2.91)	98 (3.86)	104 (4.09)	0.36 (0.79)	0.73 (44.5)	**NTJC02104N**
	7	0.0008 - 0.004 (0.5 - 2.5)	3/4"	85 (3.35)	108 (4.25)	112 (4.41)	0.48 (1.06)	0.91 (55.5)	**NTJC02204N**
	10	0.0008 - 0.004 (0.5 - 2.5)	1"	100 (3.94)	127 (5.00)	138 (5.43)	0.75 (1.65)	1.54 (94.0)	**NTJC02304N**
Type X 	5	0.0008 - 0.004 (0.5 - 2.5)	1/2"	74 (2.91)	98 (3.86)	104 (4.09)	0.37 (0.82)	0.73 (44.5)	**NTJC02105N**
	7	0.0008 - 0.004 (0.5 - 2.5)	3/4"	85 (3.35)	108 (4.25)	112 (4.41)	0.48 (1.06)	0.91 (55.5)	**NTJC02205N**
	10	0.0008 - 0.004 (0.5 - 2.5)	1"	100 (3.94)	127 (5.00)	138 (5.43)	0.75 (1.65)	1.54 (94.0)	**NTJC02305N**

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Nutsteel® NTCL2 Small Round Conduit Outlet Box

Weatherproof. Watertight

NBR IEC:
IP65

Applications

- Used for junction, derivation and passage of electrical conductors.
- Permit access to conductors for maintenance.

Features

- Cover secured to the body with screws.
- Sealing gasket provided to ensure a watertight seal.
- Available in five different hub configurations.
- NPT and BSP threads: Ø 1/2" to Ø 1-1/2". Metric threads: M16 to M50.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws and flat washers: AISI 304 stainless steel
- Sealing gasket: nitrile

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

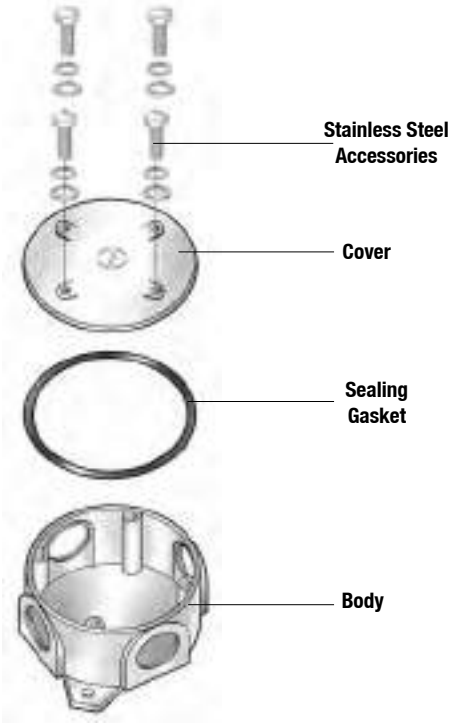
- For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NTCL210E01**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NTCL210E01**M**

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP65
- Other Standards: ABNT NBR IEC 60529 (IP)



Illustrated Features

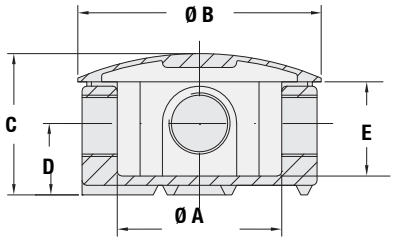


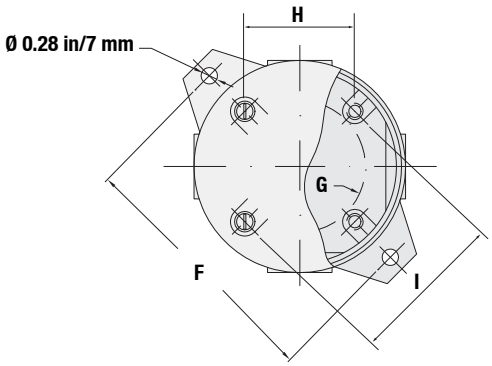
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Nutsteel® NTCL2 Small Round Conduit Outlet Box

Weatherproof. Watertight

NBR IEC:
IP65





		Dimensions mm (in)											
	Ø Thread	A	B	C	D	E	F	Diameter G	H	I	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
	1/2"	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.33 (0.73)	0.73 (44.5)	**NTCL210E01N**
	3/4"	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.33 (0.73)	0.73 (44.5)	**NTCL210E02N**
	1/2"	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.46 (1.01)	0.91 (55.5)	**NTCL220E01N**
	3/4"	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.44 (0.97)	0.91 (55.5)	**NTCL220E02N**
	1"	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.41 (0.90)	0.91 (55.5)	**NTCL220E03N**
	1/2"	100 (3.94)	127 (5.00)	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.67 (1.48)	1.54 (94.0)	**NTCL230E01N**
 **Type E**	3/4"	100 (3.94)	127 (5.00)	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.69 (1.52)	1.54 (94.0)	**NTCL230E02N**
	1"	100 (3.94)	127 (5.00)	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.65 (1.43)	1.54 (94.0)	**NTCL230E03N**
	1-1/4"	100 (3.94)	127 (5.00)	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.64 (1.41)	1.54 (94.0)	**NTCL230E04N**
	1/2"	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.23 (2.71)	2.12 (129.4)	**NTCL240E01N**
	3/4"	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.22 (2.69)	2.12 (129.4)	**NTCL240E02N**
	1"	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.57 (3.46)	2.12 (129.4)	**NTCL240E03N**
	1-1/4"	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.27 (2.80)	2.12 (129.4)	**NTCL240E04N**
	1-1/2"	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.17 2.58)	2.12 (129.4)	**NTCL240E05N**

① *For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NTCL210E01**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NTCL210E01**M***

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Nutsteel® NTCL2 Small Round Conduit Outlet Box

Weatherproof. Watertight

NBR IEC:
IP65

	Ø Thread	Dimensions mm (in) A	B	C	D	E	F	G	H	I	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
 Type C	1/2”	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.36 (0.79)	0.73 (44.5)	**NTCL210C01N**
	3/4”	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.35 (0.77)	0.73 (44.5)	**NTCL210C02N**
	1/2”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.45 (0.99)	0.91 (55.5)	**NTCL220C01N**
	3/4”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.43 (0.95)	0.91 (55.5)	**NTCL220C02N**
	1”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.40 (0.88)	0.91 (55.5)	**NTCL220C03N**
	1/2”	100 (3.94)	127 (5.00)	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.66 (1.46)	1.54 (94.0)	**NTCL230C01N**
	3/4”	100 (3.94)	127 (5.00)	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.67 (1.48)	1.54 (94.0)	**NTCL230C02N**
	1”	100 (3.94)	127 (5.00)	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.64 (1.41)	1.54 (94.0)	**NTCL230C03N**
	1-1/4”	100 (3.94)	127 (5.00)	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.62 (1.37)	1.54 (94.0)	**NTCL230C04N**
	1/2”	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.22 (2.69)	2.12 (129.4)	**NTCL240C01N**
	3/4”	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.21 (2.67)	2.12 (129.4)	**NTCL240C02N**
	1”	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.27 (2.80)	2.12 (129.4)	**NTCL240C03N**
	1-1/4”	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.12 (2.47)	2.12 (129.4)	**NTCL240C04N**
	1-1/2”	88 (3.46)	127 (5.00)	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.09 (2.40)	2.12 (129.4)	**NTCL240C05N**
 Type L	1/2”	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.33 (0.73)	0.73 (44.5)	**NTCL210L01N**
	3/4”	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.32 (0.71)	0.73 (44.5)	**NTCL210L02N**
	1/2”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.45 (0.99)	0.91 (55.5)	**NTCL220L01N**
	3/4”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.44 (0.97)	0.91 (55.5)	**NTCL220L02N**
	1”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.40 (0.88)	0.91 (55.5)	**NTCL220L03N**
	1/2”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.66 (1.46)	1.54 (94.0)	**NTCL230L01N**
	3/4”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.67 (1.48)	1.54 (94.0)	**NTCL230L02N**
	1”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.64 (1.41)	1.54 (94.0)	**NTCL230L03N**
	1-1/4”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.62 (1.37)	1.54 (94.0)	**NTCL230L04N**
	1/2”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.22 (2.69)	2.12 (129.4)	**NTCL240L01N**
	3/4”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.20 (2.65)	2.12 (129.4)	**NTCL240L02N**
	1”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.27 (2.80)	2.12 (129.4)	**NTCL240L03N**
	1-1/4”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.12 (2.47)	2.12 (129.4)	**NTCL240L04N**
	1-1/2”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.09 (2.40)	2.12 (129.4)	**NTCL240L05N**

① *For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NTCL210E01**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NTCL210E01**M***

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Nutsteel® NTCL2 Small Round Conduit Outlet Box

Weatherproof. Watertight

NBR IEC:
IP65

	Ø Thread	Dimensions mm (in) A	B	C	D	E	F	G	H	I	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
 Type T	1/2”	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.32 (0.71)	0.73 (44.5)	**NTCL210T01N**
	3/4”	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.31 (0.68)	0.73 (44.5)	**NTCL210T02N**
	1/2”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.44 (0.97)	0.91 (55.5)	**NTCL220T01N**
	3/4”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.43 (0.95)	0.91 (55.5)	**NTCL220T02N**
	1”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.39 (0.86)	0.91 (55.5)	**NTCL220T03N**
	1/2”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.65 (1.43)	1.54 (94.0)	**NTCL230T01N**
	3/4”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.65 (1.43)	1.54 (94.0)	**NTCL230T02N**
	1”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.62 (1.37)	1.54 (94.0)	**NTCL230T03N**
	1-1/4”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.59 (1.30)	1.54 (94.0)	**NTCL230T04N**
	1/2”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.21 (2.67)	2.12 (129.4)	**NTCL240T01N**
	3/4”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.18 (2.60)	2.12 (129.4)	**NTCL240T02N**
	1”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.15 (2.54)	2.12 (129.4)	**NTCL240T03N**
	1-1/4”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.06 (2.34)	2.12 (129.4)	**NTCL240T04N**
	1-1/2”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.02 (2.25)	2.12 (129.4)	**NTCL240T05N**
 Type X	1/2”	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.32 (0.71)	0.73 (44.5)	**NTCL210X01N**
	3/4”	74 (2.91)	98 (3.86)	56 (2.20)	23 (0.91)	41 (1.61)	104 (4.09)	68 (2.68)	54 (2.13)	76 (2.99)	0.30 (0.66)	0.73 (44.5)	**NTCL210X02N**
	1/2”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.43 (0.95)	0.91 (55.5)	**NTCL220X01N**
	3/4”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.41 (0.90)	0.91 (55.5)	**NTCL220X02N**
	1”	85 (3.35)	108 (4.25)	61 (2.40)	25 (0.98)	41 (1.61)	112 (4.41)	75 (2.95)	60 (2.36)	85 (3.35)	0.38 (0.84)	0.91 (55.5)	**NTCL220X03N**
	1/2”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.64 (1.41)	1.54 (94.0)	**NTCL230X01N**
	3/4”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.60 (1.32)	1.54 (94.0)	**NTCL230X02N**
	1”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.61 (1.34)	1.54 (94.0)	**NTCL230X03N**
	1-1/4”	100 (3.94)	5.00) 127	72 (2.83)	31 (1.22)	50 (1.97)	138 (5.43)	90 (3.54)	73 (2.87)	102 (4.02)	0.56 (1.23)	1.54 (94.0)	**NTCL230X04N**
	1/2”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.20 (2.65)	2.12 (129.4)	**NTCL240X01N**
	3/4”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.16 (2.56)	2.12 (129.4)	**NTCL240X02N**
	1”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.12 (2.47)	2.12 (129.4)	**NTCL240X03N**
	1-1/4”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	1.00 (2.20)	2.12 (129.4)	**NTCL240X04N**
	1-1/2”	88 (3.46)	5.00) 127	87 (3.43)	34 (1.34)	61 (2.40)	142 (5.59)	90 (3.54)	71 (2.80)	100 (3.94)	0.94 (2.07)	2.12 (129.4)	**NTCL240X05N**

① *For BSP threads, replace the letter **N** with the letter **B**, in the 11th position; example: NTCL210E01**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 11th position; example: NTCL210E01**M***

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Nutsteel® NTCM1 Junction Box

Weatherproof

NBR IEC:
IP65

Applications

- Used for assembling electrical and electronic equipment and components.
- Used for junction, derivation and passage of electrical conductors.

Features

- Cover secured to the body by screws with flat washers and lock washers.
- Sealing gasket between the body and cover.
- Furnished with mounting plate and flat cover as standard.
- Custom threaded entries provided. Specify location and size.
- NPT and BSP threads: Ø 1/2" to Ø 4". Metric threads M16 to M100.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws and flat washers: AISI 304 stainless steel
- Mounting plate: zinc plated steel
- Sealing gasket: styrene-butadiene rubber (SBR)

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

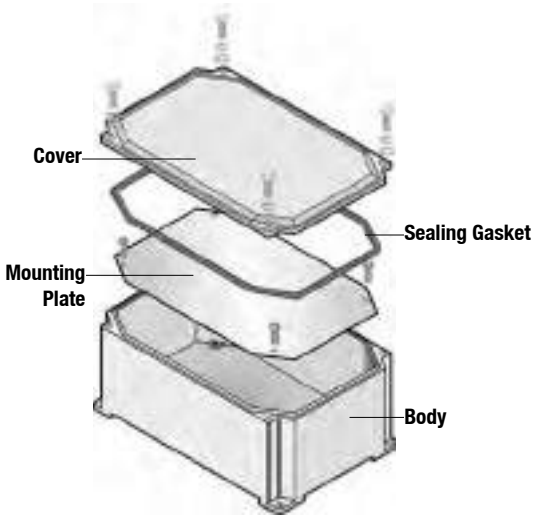
- To order box with medium cover, replace the letter **0** with the letter **1** in the 9th position; example: NTCM1P1H**1**
- To order box with high cover, replace the letter **0** with the letter **2** in the 9th position; example: NTCM1P1H**2**
- Holes different from those specified may be provided, depending on the size of the box and the Ø of the cable entries. Contact your local sales representative.
- Upon request, boxes can be supplied with:
  — Side cover that can be drilled or not
  — Hinges on the cover

NBR IEC Brazilian Certifications and Compliances

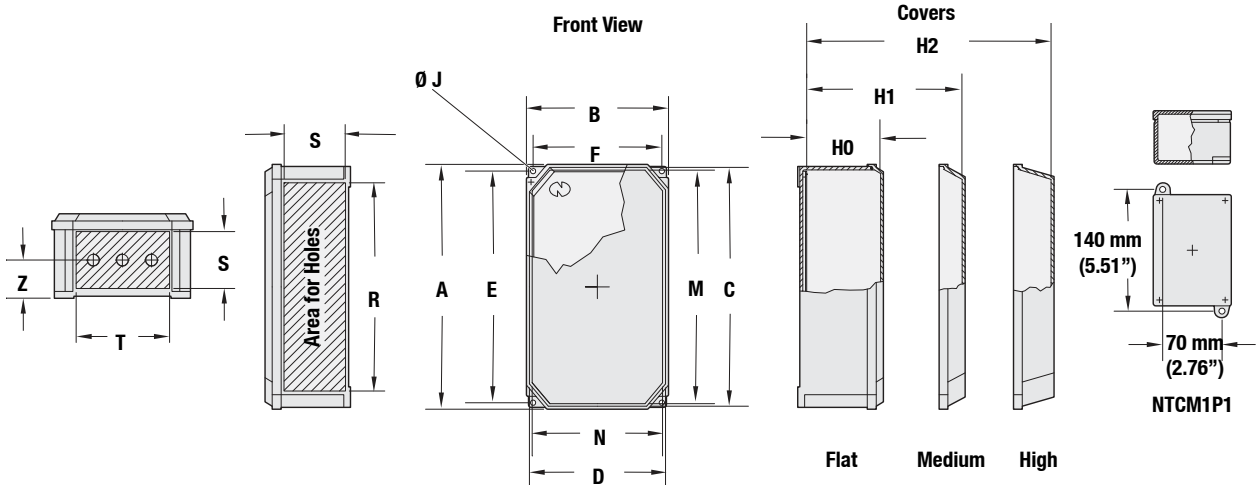
- Ingress Protection (solid and liquid): IP65
- Other Standards: ABNT NBR IEC 60529 (IP)



Illustrated Features



Illustrated Dimensions



Appleton®

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Nutsteel® NTCM1 Junction Box

Weatherproof

NBR IEC:
IP65

Dimensions mm (in)													
External (for Flat Cover)		Internal		Mounting Base			Mounting Plate			Area for Holes			Enclosure Catalog
A	B	C	D	E	F	Ø J	M	N	R	S	T	Z	Number ①②
130 (5.12)	90 (3.54)	110 (4.33)	75 (2.95)	—	—	7 (0.28)	110 (4.33)	70 (2.76)	100 (3.94)	40 (1.57)	65 (2.56)	28 (1.10)	**NTCM1P1H0F**
162 (6.38)	120 (4.72)	140 (5.51)	100 (3.94)	140 (5.51)	100 (3.94)	11 (0.43)	130 (5.12)	90 (3.54)	100 (3.94)	60 (2.36)	60 (2.36)	45 (1.77)	**NTCM1P2H0F**
190 (7.48)	160 (6.30)	170 (6.69)	140 (5.51)	165 (6.50)	130 (5.12)	11 (0.43)	150 (5.91)	130 (5.12)	110 (4.33)	72 (2.83)	70 (2.76)	55 (2.17)	**NTCM1P3H0F**
235 (9.25)	155 (6.10)	215 (8.46)	140 (5.51)	210 (8.27)	130 (5.12)	11 (0.43)	200 (7.87)	130 (5.12)	155 (6.10)	72 (2.83)	70 (2.76)	55 (2.17)	**NTCM1P4H0F**
290 (11.42)	155 (6.10)	270 (10.63)	140 (5.51)	265 (10.43)	130 (5.12)	11 (0.43)	240 (9.45)	130 (5.12)	200 (7.87)	72 (2.83)	70 (2.76)	55 (2.17)	**NTCM1P5H0F**
345 (13.58)	155 (6.10)	330 (12.99)	140 (5.51)	325 (12.80)	130 (5.12)	11 (0.43)	320 (12.60)	130 (5.12)	265 (10.43)	72 (2.83)	70 (2.76)	55 (2.17)	**NTCM1P6H0F**
465 (18.31)	165 (6.50)	445 (17.52)	140 (5.51)	430 (16.93)	130 (5.12)	11 (0.43)	435 (17.13)	130 (5.12)	380 (14.96)	72 (2.83)	70 (2.76)	55 (2.17)	**NTCM1P7H0F**
245 (9.65)	245 (9.65)	225 (8.86)	225 (8.86)	215 (8.46)	215 (8.46)	11 (0.43)	205 (8.07)	205 (8.07)	155 (6.10)	115 (4.53)	155 (6.10)	75 (2.95)	**NTCM1Q1H0F**
230 (9.06)	290 (11.42)	215 (8.46)	275 (10.83)	205 (8.07)	260 (10.24)	11 (0.43)	190 (7.48)	265 (10.43)	155 (6.10)	115 (4.53)	180 (7.09)	75 (2.95)	**NTCM1M1H0F**
300 (11.81)	295 (11.61)	275 (10.83)	275 (10.83)	265 (10.43)	260 (10.24)	11 (0.43)	260 (10.24)	265 (10.43)	210 (8.27)	115 (4.53)	180 (7.09)	75 (2.95)	**NTCM1M2H0F**
355 (13.98)	295 (11.61)	340 (13.39)	275 (10.83)	330 (12.99)	260 (10.24)	11 (0.43)	325 (12.80)	265 (0.43)	265 (10.43)	115 (4.53)	180 (7.09)	75 (2.95)	**NTCM1M3H0F**
420 (16.54)	295 (11.61)	405 (15.94)	275 (10.83)	390 (15.35)	260 (10.24)	11 (0.43)	385 (15.16)	265 (10.43)	320 (12.60)	115 (4.53)	180 (7.09)	75 (2.95)	**NTCM1M4H0F**
465 (18.31)	295 (11.61)	445 (17.52)	275 (10.83)	435 (17.13)	260 (10.24)	11 (0.43)	430 (16.93)	265 (10.43)	370 (14.57)	115 (4.53)	180 (7.09)	75 (2.95)	**NTCM1M5H0F**
520 (20.47)	295 (11.61)	500 (19.69)	275 (10.83)	490 (19.29)	260 (10.24)	11 (0.43)	460 (18.11)	265 (10.43)	410 (16.14)	115 (4.53)	180 (7.09)	75 (2.95)	**NTCM1M6H0F**
585 (23.03)	305 (12.01)	565 (22.24)	275 (10.83)	545 (21.46)	260 (10.24)	11 (0.43)	535 (11.06)	265 (10.43)	480 (18.90)	115 (4.53)	180 (7.09)	75 (2.95)	**NTCM1M7H0F**
610 (24.02)	295 (11.61)	595 (23.43)	275 (10.83)	585 (23.03)	260 (10.24)	11 (0.43)	580 (22.83)	265 (10.43)	520 (20.47)	115 (4.53)	180 (7.09)	75 (2.95)	**NTCM1M8H0F**
710 (27.95)	295 (11.61)	695 (27.36)	275 (10.83)	675 (26.57)	260 (10.24)	11 (0.43)	665 (26.18)	265 (10.43)	590 (23.23)	115 (4.53)	180 (7.09)	75 (2.95)	**NTCM1M9H0F**
415 (16.34)	365 (14.37)	395 (15.55)	350 (13.78)	390 (15.35)	340 (13.39)	11 (0.43)	380 (14.96)	340 (13.39)	320 (12.60)	170 (6.69)	265 (10.43)	105 (4.13)	**NTCM1G1H0F**
465 (18.31)	370 (14.57)	445 (17.52)	350 (13.78)	445 (17.52)	340 (13.39)	11 (0.43)	405 (15.94)	340 (13.39)	370 (14.57)	170 (6.69)	265 (10.43)	105 (4.13)	**NTCM1G2H0F**
575 (22.64)	375 (14.76)	555 (21.85)	350 (13.78)	545 (21.46)	340 (13.39)	11 (0.43)	520 (20.47)	340 (13.39)	470 (18.50)	170 (6.69)	265 (10.43)	105 (4.13)	**NTCM1G3H0F**
630 (24.80)	370 (14.57)	605 (23.82)	350 (13.78)	590 (23.23)	340 (13.39)	11 (0.43)	590 (23.23)	340 (13.39)	520 (20.47)	170 (6.69)	265 (10.43)	105 (4.13)	**NTCM1G4H0F**
710 (27.95)	380 (14.96)	685 (26.97)	350 (13.78)	675 (26.57)	340 (13.39)	11 (0.43)	640 (25.20)	340 (13.39)	610 (24.02)	170 (6.69)	265 (10.43)	105 (4.13)	**NTCM1G5H0F**

① *To order box with medium cover, replace the letter **0** with the letter **1** in the 9th position; example: NTCM1P1H**1**.*
*To order box with high cover, replace the letter **0** with the letter **2** in the 9th position; example: NTCM1P1H**2**.*
② *The catalog numbers located above are for base enclosures without holes. See the Ordering Information on the following pages to create a customized drilled and threaded enclosure.*

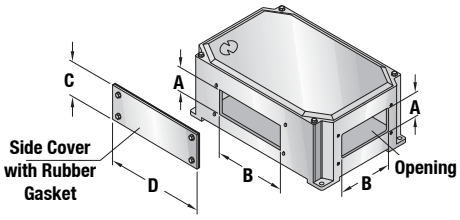
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Nutsteel® NTCM1 Junction Box

Weatherproof

NBR IEC:
IP65

Optional Openings and Side Covers

	Opening mm (in)			Cover mm (in)		
	A	B	Catalog Number	C	D	Catalog Number
	80 (3.15)	140 (5.51)	**ABJANW**	115 (4.53)	175 (6.89)	**NFJANW**
	120 (4.72)	230 (9.06)	**ABJANY**	155 (6.10)	265 (10.43)	**NFJANY**
	80 (3.15)	390 (15.35)	**ABJANX**	115 (4.53)	425 (16.73)	**NFJANX**
	120 (4.72)	390 (15.35)	**ABJANZ**	155 (6.10)	425 (16.73)	**NFJANZ**

Enclosure Catalog Number	Internal Dimensions H0 — Flat Cover Height mm (in)	H0 — Flat Cover Weight kg (lb)	H1 — Medium Cover Height mm (in)	H1 — Medium Cover Weight kg (lb)	H2 — High Cover Height mm (in)	H2 — High Cover Weight kg (lb)	External Volume of Box dm³ (in³) H0 Flat Cover	H1 Medium Cover	H2 High Cover
NTCM1P1H0F	55 (2.17)	0.79 (1.74)	75 (2.95)	0.88 (1.94)	—	—	0.79 (48.21)	0.93 (56.75)	—
NTCM1P2H0F	90 (3.54)	1.75 (3.86)	110 (4.33)	1.71 (3.77)	—	—	2.09 (127.54)	2.44 (148.90)	—
NTCM1P3H0F	110 (4.33)	2.68 (5.91)	125 (4.92)	2.93 (6.46)	—	—	3.84 (234.33)	4.30 (262.40)	—
NTCM1P4H0F	110 (4.33)	2.83 (6.24)	130 (5.12)	3.14 (6.92)	—	—	4.66 (284.37)	5.35 (326.48)	—
NTCM1P5H0F	110 (4.33)	3.67 (8.09)	130 (5.12)	4.06 (8.95)	—	—	5.63 (343.56)	6.52 (397.87)	—
NTCM1P6H0F	110 (4.33)	4.40 (9.70)	130 (5.12)	5.08 (11.20)	—	—	6.94 (423.50)	7.96 9 485.75)	—
NTCM1P7H0F	110 (4.33)	5.44 (11.99)	130 (5.12)	6.30 (13.89)	—	—	9.75 (594.98)	11.18 (682.25)	—
NTCM1Q1H0F	150 (5.91)	4.57 (10.08)	170 (6.69)	5.03 (11.09)	215 (8.46)	5.28 (11.64)	9.87 (602.30)	10.82 (660.28)	13.80 (842.13)
NTCM1M1H0F	150 (5.91)	5.36 (11.82)	170 (6.69)	5.98 (13.18)	215 (8.46)	6.33 (13.96)	11.15 (680.41)	12.43 (758.53)	15.85 (967.23)
NTCM1M2H0F	150 (5.91)	7.01 (15.45)	170 (6.69)	7.29 (16.07)	215 (8.46)	8.26 (18.21)	14.81 (903.76)	16.93 (1033.13)	20.63 (1258.92)
NTCM1M3H0F	150 (5.91)	7.83 (17.26)	170 (6.69)	8.43 (18.58)	215 (8.46)	9.57 (21.10)	17.42 (1063.03)	20.01 (1221.09)	23.33 (1423.68)
NTCM1M4H0F	150 (5.91)	8.83 (19.47)	170 (6.69)	10.47 (23.08)	215 (8.46)	10.80 (23.81)	21.18 (1292.48)	23.05 (1406.60)	28.03 (1710.50)
NTCM1M5H0F	150 (5.91)	11.64 (25.66)	170 (6.69)	12.53 (27.62)	215 (8.46)	13.11 (28.90)	22.74 (1387.68)	24.37 (1487.15)	30.73 (1875.26)
NTCM1M6H0F	150 (5.91)	12.72 (28.04)	170 (6.69)	13.64 (30.07)	215 (8.46)	14.31 (31.55)	26.57 (1621.40)	28.89 (1762.98)	35.99 (2196.24)
NTCM1M7H0F	150 (5.91)	14.82 (32.67)	170 (6.69)	14.68 (32.36)	215 (8.46)	16.31 (35.96)	31.53 (1924.08)	34.04 (2077.25)	42.64 (2602.05)
NTCM1M8H0F	150 (5.91)	13.18 (29.06)	170 (6.69)	14.21 (31.33)	215 (8.46)	17.27 (38.07)	29.90 (1824.61)	33.82 (2063.82)	42.36 (2584.97)
NTCM1M9H0F	150 (5.91)	15.78 (34.79)	170 (6.69)	16.93 (37.32)	235 (9.25)	17.44 (38.45)	35.36 (2157.80)	39.36 (2401.89)	52.62 (3211.07)
NTCM1G1H0F	205 (8.07)	13.75 (30.31)	225 (8.86)	14.30 (31.53)	260 (10.24)	15.31 (33.75)	34.39 (2098.61)	36.68 (2238.35)	42.15 (2572.15)
NTCM1G2H0F	205 (8.07)	15.62 (34.44)	225 (8.86)	16.60 (36.60)	260 (10.24)	17.69 (39.00)	38.29 (2336.60)	42.26 (2578.86)	49.16 (2999.93)
NTCM1G3H0F	205 (8.07)	18.34 (40.43)	225 (8.86)	19.17 (42.26)	260 (10.24)	21.31 (46.98)	47.84 (2919.38)	52.60 (3209.85)	59.32 (3619.93)
NTCM1G4H0F	205 (8.07)	21.22 (46.78)	225 (8.86)	21.28 (46.91)	260 (10.24)	22.31 (49.19)	53.49 (3264.16)	57.23 (3492.39)	64.47 (3934.20)
NTCM1G5H0F	205 (8.07)	24.93 (54.96)	225 (8.86)	26.06 (57.45)	280 (11.02)	27.35 (60.30)	59.56 (3634.57)	65.73 (4011.09)	79.14 (4829.42)

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Nutsteel® NTCM1 Junction Box

Weatherproof

NBR IEC:
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Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NTCM1P1H0F-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 1		Step 2		Step 3
NTCM1P1H0F	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

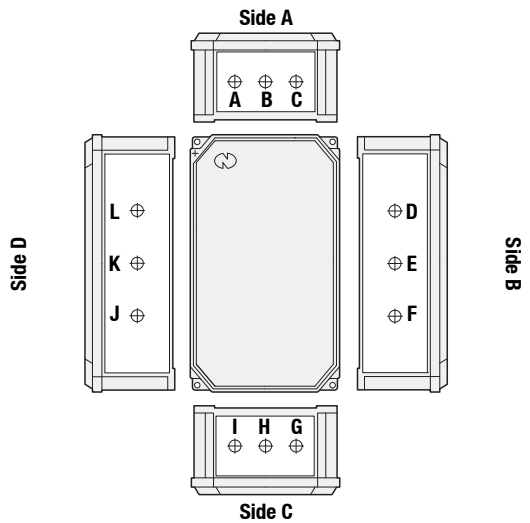
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50
07M	M63
08M	M75
09M	M90
10M	M100

Hole and Enclosure Side Locations



Thread Equivalence

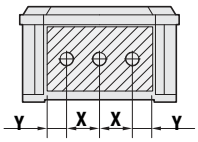
NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

Drilling Technical Data

Enclosure	Maximum Diameter Allowed Drilling
NTCM1P1H0F	1/2" to 3/4" - M16 to M32
NTCM1P2H0F	1/2" to 2" - M16 to M63
NTCM1P3H0F	1/2" to 2" - M16 to M63
NTCM1P4H0F	1/2" to 2" - M16 to M63
NTCM1P5H0F	1/2" to 2" - M16 to M63
NTCM1P6H0F	1/2" to 2" - M16 to M63
NTCM1P7H0F	1/2" to 2" - M16 to M63
NTCM1Q1H0F	1/2" to 3-1/2" - M16 to M90
NTCM1M1H0F	1/2" to 3-1/2" - M16 to M90
NTCM1M2H0F	1/2" to 3-1/2" - M16 to M90
NTCM1M3H0F	1/2" to 3-1/2" - M16 to M90
NTCM1M4H0F	1/2" to 3-1/2" - M16 to M90
NTCM1M5H0F	1/2" to 3-1/2" - M16 to M90
NTCM1M6H0F	1/2" to 3-1/2" - M16 to M90
NTCM1M7H0F	1/2" to 3-1/2" - M16 to M90
NTCM1M8H0F	1/2" to 3-1/2" - M16 to M90
NTCM1M9H0F	1/2" to 4" - M16 to M100
NTCM1G1H0F	1/2" to 4" - M16 to M100
NTCM1G2H0F	1/2" to 4" - M16 to M100
NTCM1G3H0F	1/2" to 4" - M16 to M100
NTCM1G4H0F	1/2" to 4" - M16 to M100
NTCM1G5H0F	1/2" to 4" - M16 to M100

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Ø Nominal	1/2"	3/4"	1"	1–1/4"	1–1/2"	2"	2–1/2"	3"	3–1/2"	4"
Minimum Distance "X" Between Holes Without Union mm (in)										
1/2"	32 (1.26)	35 (1.38)	41 (1.61)	48 (1.89)	51 (2.01)	60 (2.36)	67 (2.64)	76 (2.99)	83 (3.27)	92 (3.62)
3/4"	35 (1.38)	38 (1.50)	44 (1.73)	51 (2.01)	54 (2.13)	64 (2.52)	70 (2.76)	79 (3.11)	86 (3.39)	95 (3.74)
1"	41 (1.61)	44 (1.73)	51 (2.01)	57 (2.24)	60 (2.36)	70 (2.76)	76 (2.99)	86 (3.39)	92 (3.62)	102 (4.02)
1-1/4"	48 (1.89)	51 (2.01)	57 (2.24)	64 (2.52)	67 (2.64)	76 (2.99)	83 (3.27)	92 (3.62)	98 (3.86)	114 (4.49)
1-1/2"	51 (2.01)	54 (2.13)	60 (2.36)	67 (2.64)	70 (2.76)	79 (3.11)	86 (3.39)	95 (3.74)	102 (4.02)	116 (4.57)
2"	60 (2.36)	64 (2.52)	70 (2.76)	76 (2.99)	79 (3.11)	89 (3.50)	95 (3.74)	108 (4.25)	111 (4.37)	121 (4.76)
2-1/2"	67 (2.64)	70 (2.76)	76 (2.99)	83 (3.27)	86 (3.39)	95 (3.74)	102 (4.02)	111 (4.37)	118 (4.65)	127 (5.00)
3"	76 (2.99)	79 (3.11)	86 (3.39)	92 (3.62)	95 (3.74)	108 (4.25)	111 (4.37)	121 (4.76)	127 (5.00)	137 (5.39)
3-1/2"	83 (3.27)	86 (3.39)	92 (3.62)	98 (3.86)	102 (4.02)	111 (4.37)	118 (4.65)	127 (5.00)	134 (5.28)	143 (5.63)
4"	92 (3.62)	95 (3.74)	102 (4.02)	114 (4.49)	116 (4.57)	121 (4.76)	127 (5.00)	137 (5.39)	143 (5.63)	153 (6.02)
Minimum Distance "X" Between Holes With Union mm (in)										
1/2"	60 (2.36)	66 (2.60)	70 (2.76)	77 (3.03)	79 (3.11)	89 (3.50)	89 (3.46)	109 (4.29)	118 (4.65)	126 (4.96)
3/4"	66 (2.60)	72 (2.83)	76 (2.99)	83 (3.27)	85 (3.35)	95 (3.74)	104 (4.09)	110 (4.33)	124 (4.88)	134 (5.28)
1"	70 (2.76)	76 (2.99)	79 (3.11)	86 (3.39)	89 (3.50)	99 (3.90)	108 (4.25)	118 (4.65)	127 (5.00)	135 (5.31)
1-1/4"	77 (3.03)	83 (3.27)	86 (3.39)	91 (3.58)	96 (3.78)	106 (4.17)	115 (4.53)	125 (4.92)	134 (5.28)	142 (5.59)
1-1/2"	79 (3.11)	85 (3.35)	89 (3.50)	96 (3.78)	98 (3.86)	108 (4.25)	117 (4.61)	128 (5.04)	137 (5.39)	145 (5.71)
2"	89 (3.50)	95 (3.74)	99 (3.90)	106 (4.17)	108 (4.25)	118 (4.65)	127 (5.00)	138 (5.43)	147 (5.79)	155 (6.10)
2-1/2"	89 (3.46)	104 (4.09)	108 (4.25)	115 (4.53)	117 (4.61)	127 (5.00)	136 (5.35)	147 (5.79)	156 (6.14)	164 (6.46)
3"	109 (4.29)	110 (4.33)	118 (4.65)	125 (4.92)	128 (5.04)	138 (5.43)	147 (5.79)	157 (6.18)	166 (6.54)	174 (6.85)
3-1/2"	118 (4.65)	124 (4.88)	127 (5.00)	134 (5.28)	137 (5.39)	147 (5.79)	156 (6.14)	166 (6.54)	175 (6.89)	183 (7.20)
4"	126 (4.96)	134 (5.28)	135 (5.31)	142 (5.59)	145 (5.71)	155 (6.10)	164 (6.46)	174 (6.85)	183 (7.20)	191 (7.52)
Minimum Distance "X" Between Holes With Cable Gland mm (in)										
1/2"	60 (2.36)	66 (2.60)	70 (2.76)	77 (3.03)	79 (3.11)	89 (3.50)	89 (3.46)	109 (4.29)	118 (4.65)	126 (4.96)
3/4"	66 (2.60)	72 (2.83)	76 (2.99)	83 (3.27)	85 (3.35)	95 (3.74)	104 (4.09)	110 (4.33)	124 (4.88)	134 (5.28)
1"	70 (2.76)	76 (2.99)	79 (3.11)	86 (3.39)	89 (3.50)	99 (3.90)	108 (4.25)	118 (4.65)	127 (5.00)	135 (5.31)
1-1/4"	77 (3.03)	83 (3.27)	86 (3.39)	91 (3.58)	96 (3.78)	106 (4.17)	115 (4.53)	125 (4.92)	134 (5.28)	142 (5.59)
1-1/2"	79 (3.11)	85 (3.35)	89 (3.50)	96 (3.78)	98 (3.86)	108 (4.25)	117 (4.61)	128 (5.04)	137 (5.39)	145 (5.71)
2"	89 (3.50)	95 (3.74)	99 (3.90)	106 (4.17)	108 (4.25)	118 (4.65)	127 (5.00)	138 (5.43)	147 (5.79)	155 (6.10)
2-1/2"	89 (3.46)	104 (4.09)	108 (4.25)	115 (4.53)	117 (4.61)	127 (5.00)	136 (5.35)	147 (5.79)	156 (6.14)	164 (6.46)
3"	109 (4.29)	110 (4.33)	118 (4.65)	125 (4.92)	128 (5.04)	138 (5.43)	147 (5.79)	157 (6.18)	166 (6.54)	174 (6.85)
3-1/2"	118 (4.65)	124 (4.88)	127 (5.00)	134 (5.28)	137 (5.39)	147 (5.79)	156 (6.14)	166 (6.54)	175 (6.89)	183 (7.20)
4"	126 (4.96)	134 (5.28)	135 (5.31)	142 (5.59)	145 (5.71)	155 (6.10)	164 (6.46)	174 (6.85)	183 (7.20)	191 (7.52)
Distance "Y" mm (in)										
	11 (0.43)	13 (0.51)	17 (0.67)	21 (0.83)	24 (0.94)	30 (1.18)	36 (1.42)	44 (1.73)	51 (2.01)	57 (2.24)



Distance "X and Y"

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Nutsteel® NTCM2 Junction Box

Weatherproof. Watertight

NBR IEC:
IP65

Applications

- Used for housing electrical and electronic equipment and components.
- Used for junction, derivation and passage of electrical conductors.

Features

- Cover secured to the body by screws with flat and lock washers.
- Sealing gasket between the body and cover.
- Furnished with mounting plate and flat cover as standard.
- Custom threaded entries provided. Specify location and size.
- NPT and BSP threads: Ø 1/2" to Ø 4". Metric threads: M16 to M100.



Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws and washers: AISI 304 stainless steel
- Mounting plate: zinc plated steel
- Sealing gasket: styrene-butadiene rubber (SBR)

Standard Finishes

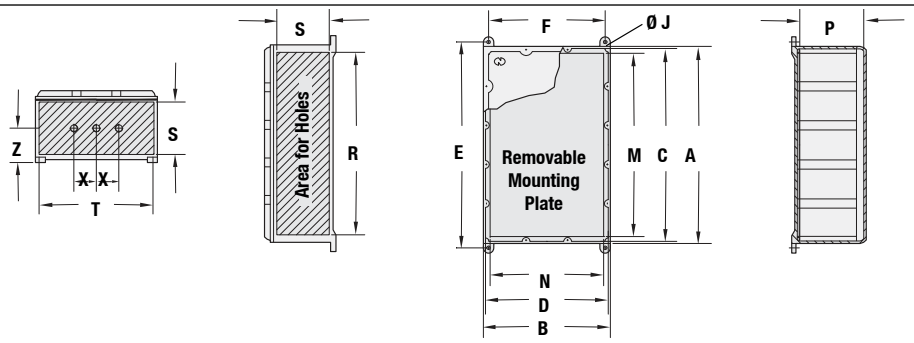
- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- Upon request, boxes can be supplied with:
  — Side cover that can be drilled or not
  — Hinges on the cover

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP65
- Other Standards: ABNT NBR IEC 60529 (IP)



Dimensions mm (in)																
External		Internal		Mounting Base			Mounting Plate		Internal Height	Area for Holes				Weight	Volume	Enclosure Catalog
A	B	C	D	E	F	Ø J	M	N	P	R	S	T	Z	kg (lb)	dm³ (in³)	Number ①
210 (8.27)	210 (8.27)	200 (7.87)	200 (7.87)	235 (9.25)	190 (7.48)	7 (0.28)	200 (7.87)	125 (4.92)	165 (6.50)	170 (6.69)	135 (5.31)	170 (6.69)	85 (3.35)	5.38 (11.84)	8.22 (501.6)	**NTCM2P1H0F**
285 (11.22)	155 (6.10)	270 (10.63)	140 (5.51)	310 (12.20)	130 (5.12)	7 (0.28)	190 (7.48)	190 (7.48)	130 (5.12)	240 (9.45)	100 (3.94)	110 (4.33)	70 (2.76)	4.84 (10.65)	6.53 (398.5)	**NTCM2P2H0F**
315 (12.40)	315 (12.40)	300 (11.81)	300 (11.81)	335 (13.19)	290 (11.42)	7 (0.28)	265 (10.43)	265 (10.43)	165 (6.50)	250 (9.84)	135 (5.31)	250 (9.84)	85 (3.35)	11.16 (24.55)	18.15 (1107.6)	**NTCM2M1H0F**
400 (15.75)	400 (15.75)	390 (15.35)	390 (15.35)	460 (18.11)	370 (14.57)	10 (0.39)	350 (13.78)	350 (13.78)	160 (6.30)	340 (13.39)	135 (5.31)	340 (13.39)	85 (3.35)	14.93 (32.85)	28.60 (1745.3)	**NTCM2M2H0F**
755 (29.72)	405 (15.94)	740 (29.13)	390 (15.35)	800 (31.50)	370 (14.57)	10 (0.39)	710 (27.95)	350 (13.78)	230 (9.06)	690 (27.17)	180 (7.09)	340 (13.39)	112 (4.410	35.57 (78.25)	76.63 (4676.2)	**NTCM2G1H0F**
755 (29.72)	485 (19.09)	740 (29.13)	470 (18.50)	800 (31.50)	460 (18.11)	10 (0.39)	690 (27.17)	425 (16.73)	240 (9.45)	680 (26.77)	200 (7.87)	420 (16.54)	125 (4.92)	47.72 (104.98)	94.82 (5786.3)	**NTCM2G2H0F**
940 (37.01)	605 (23.82)	923 (36.34)	575 (22.64)	1015 (39.96)	580 (22.83)	10 (0.39)	890 (35.04)	540 (21.26)	235 (9.25)	890 (35.04)	200 (7.87)	540 (21.26)	125 (4.92)	73.58 (161.88)	144.77 (8834.4)	**NTCM2G3H0F**

① *The catalog numbers located above are for base enclosures without holes. See the Ordering Information on the following pages to create a customized drilled and threaded enclosure.*

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Nutsteel® NTCM2 Junction Box

Weatherproof. Watertight

NBR IEC:
IP65

Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NTCM2P1H0F-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 1		Step 2		Step 3
NTCM2P1H0F	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

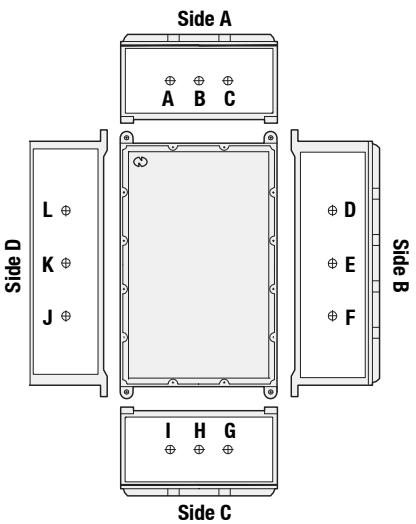
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50
07M	M63
08M	M75
09M	M90
10M	M100

Hole and Enclosure Side Locations



Thread Equivalence

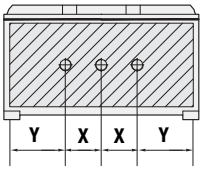
NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

Drilling Technical Data

Enclosure Catalog Number	Maximum Diameter Allowed Drilling
NTCM2P1H0F	1/2" to 2" - M16 to M63
NTCM2P2H0F	1/2" to 3-1/2" - M16 to M90
NTCM2M1H0F	1/2" to 3-1/2" - M16 to M90
NTCM2M2H0F	1/2" to 3-1/2" - M16 to M90
NTCM2G1H0F	1/2" to 3-1/2" - M16 to M90
NTCM2G2H0F	1/2" to 4" - M16 to M100
NTCM2G3H0F	1/2" to 4" - M16 to M100

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Ø Nominal	1/2"	3/4"	1"	1–1/4"	1–1/2"	2"	2–1/2"	3"	3–1/2"	4"
Minimum Distance "X" Between Holes Without Union mm (in)										
1/2"	32 (1.26)	35 (1.38)	41 (1.61)	48 (1.89)	51 (2.01)	60 (2.36)	67 (2.64)	76 (2.99)	83 (3.27)	92 (3.62)
3/4"	35 (1.38)	38 (1.50)	44 (1.73)	51 (2.01)	54 (2.13)	64 (2.52)	70 (2.76)	79 (3.11)	86 (3.39)	95 (3.74)
1"	41 (1.61)	44 (1.73)	51 (2.01)	57 (2.24)	60 (2.36)	70 (2.76)	76 (2.99)	86 (3.39)	92 (3.62)	102 (4.02)
1-1/4"	48 (1.89)	51 (2.01)	57 (2.24)	64 (2.52)	67 (2.64)	76 (2.99)	83 (3.27)	92 (3.62)	98 (3.86)	114 (4.49)
1-1/2"	51 (2.01)	54 (2.13)	60 (2.36)	67 (2.64)	70 (2.76)	79 (3.11)	86 (3.39)	95 (3.74)	102 (4.02)	116 (4.57)
2"	60 (2.36)	64 (2.52)	70 (2.76)	76 (2.99)	79 (3.11)	89 (3.50)	95 (3.74)	108 (4.25)	111 (4.37)	121 (4.76)
2-1/2"	67 (2.64)	70 (2.76)	76 (2.99)	83 (3.27)	86 (3.39)	95 (3.74)	102 (4.02)	111 (4.37)	118 (4.65)	127 (5.00)
3"	76 (2.99)	79 (3.11)	86 (3.39)	92 (3.62)	95 (3.74)	108 (4.25)	111 (4.37)	121 (4.76)	127 (5.00)	137 (5.39)
3-1/2"	83 (3.27)	86 (3.39)	92 (3.62)	98 (3.86)	102 (4.02)	111 (4.37)	118 (4.65)	127 (5.00)	134 (5.28)	143 (5.63)
4"	92 (3.62)	95 (3.74)	102 (4.02)	114 (4.49)	116 (4.57)	121 (4.76)	127 (5.00)	137 (5.39)	143 (5.63)	153 (6.02)
Minimum Distance "X" Between Holes With Union mm (in)										
1/2"	60 (2.36)	66 (2.60)	70 (2.76)	77 (3.03)	79 (3.11)	89 (3.50)	89 (3.46)	109 (4.29)	118 (4.65)	126 (4.96)
3/4"	66 (2.60)	72 (2.83)	76 (2.99)	83 (3.27)	85 (3.35)	95 (3.74)	104 (4.09)	110 (4.33)	124 (4.88)	134 (5.28)
1"	70 (2.76)	76 (2.99)	79 (3.11)	86 (3.39)	89 (3.50)	99 (3.90)	108 (4.25)	118 (4.65)	127 (5.00)	135 (5.31)
1-1/4"	77 (3.03)	83 (3.27)	86 (3.39)	83 (3.27)	96 (3.78)	106 (4.17)	115 (4.53)	125 (4.92)	134 (5.28)	142 (5.59)
1-1/2"	79 (3.11)	85 (3.35)	89 (3.50)	96 (3.78)	98 (3.86)	108 (4.25)	117 (4.61)	128 (5.04)	137 (5.39)	145 (5.71)
2"	89 (3.50)	95 (3.74)	99 (3.90)	106 (4.17)	108 (4.25)	118 (4.65)	127 (5.00)	138 (5.43)	147 (5.79)	155 (6.10)
2-1/2"	89 (3.46)	104 (4.09)	108 (4.25)	115 (4.53)	117 (4.61)	127 (5.00)	136 (5.35)	147 (5.79)	156 (6.14)	164 (6.46)
3"	109 (4.29)	110 (4.33)	118 (4.65)	125 (4.92)	128 (5.04)	138 (5.43)	147 (5.79)	157 (6.18)	166 (6.54)	174 (6.85)
3-1/2"	118 (4.65)	124 (4.88)	127 (5.00)	134 (5.28)	137 (5.39)	147 (5.79)	156 (6.14)	166 (6.54)	175 (6.89)	183 (7.20)
4"	126 (4.96)	134 (5.28)	135 (5.31)	142 (5.59)	145 (5.71)	155 (6.10)	164 (6.46)	174 (6.85)	183 (7.20)	191 (7.52)
Minimum Distance "X" Between Holes With Cable Gland mm (in)										
1/2"	60 (2.36)	66 (2.60)	70 (2.76)	77 (3.03)	79 (3.11)	89 (3.50)	89 (3.46)	109 (4.29)	118 (4.65)	126 (4.96)
3/4"	66 (2.60)	72 (2.83)	76 (2.99)	83 (3.27)	85 (3.35)	95 (3.74)	104 (4.09)	110 (4.33)	124 (4.88)	134 (5.28)
1"	70 (2.76)	76 (2.99)	79 (3.11)	86 (3.39)	89 (3.50)	99 (3.90)	108 (4.25)	118 (4.65)	127 (5.00)	135 (5.31)
1-1/4"	77 (3.03)	83 (3.27)	86 (3.39)	83 (3.27)	96 (3.78)	106 (4.17)	115 (4.53)	125 (4.92)	134 (5.28)	142 (5.59)
1-1/2"	79 (3.11)	85 (3.35)	89 (3.50)	96 (3.78)	98 (3.86)	108 (4.25)	117 (4.61)	128 (5.04)	137 (5.39)	145 (5.71)
2"	89 (3.50)	95 (3.74)	99 (3.90)	106 (4.17)	108 (4.25)	118 (4.65)	127 (5.00)	138 (5.43)	147 (5.79)	155 (6.10)
2-1/2"	89 (3.46)	104 (4.09)	108 (4.25)	115 (4.53)	117 (4.61)	127 (5.00)	136 (5.35)	147 (5.79)	156 (6.14)	164 (6.46)
3"	109 (4.29)	110 (4.33)	118 (4.65)	125 (4.92)	128 (5.04)	138 (5.43)	147 (5.79)	157 (6.18)	166 (6.54)	174 (6.85)
3-1/2"	118 (4.65)	124 (4.88)	127 (5.00)	134 (5.28)	137 (5.39)	147 (5.79)	156 (6.14)	166 (6.54)	175 (6.89)	183 (7.20)
4"	126 (4.96)	134 (5.28)	135 (5.31)	142 (5.59)	145 (5.71)	155 (6.10)	164 (6.46)	174 (6.85)	183 (7.20)	191 (7.52)
Distance "Y" mm (in)										
	11 (0.43)	13 (0.51)	17 (0.67)	21 (0.83)	24 (0.94)	30 (1.18)	36 (1.42)	44 (1.73)	51 (2.01)	57 (2.24)



Distance "X and Y"

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Nutsteel® NTCM3 Pull Box with Drain/Breather

Weatherproof

NBR IEC:
IP54

Applications

- Suitable for environments containing moisture, non-flammable gases and vapors.
- Commonly used for installation, inspection and passage of cables.

Features

- Flat smooth cover.
- Pull box provided with separate drain and breather.
- Cover secured to the body by screws with flat and lock washers.
- Sealing gasket between the body and cover.
- Suitable for flush mounting.
- Custom threaded entries provided. Specify location and size.
- NPT and BSP threads: Ø 1" to Ø 4". Metric threads: M16 to M100.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws washers: AISI 304 stainless steel
- Sealing gasket: styrene-butadiene rubber (SBR)

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure



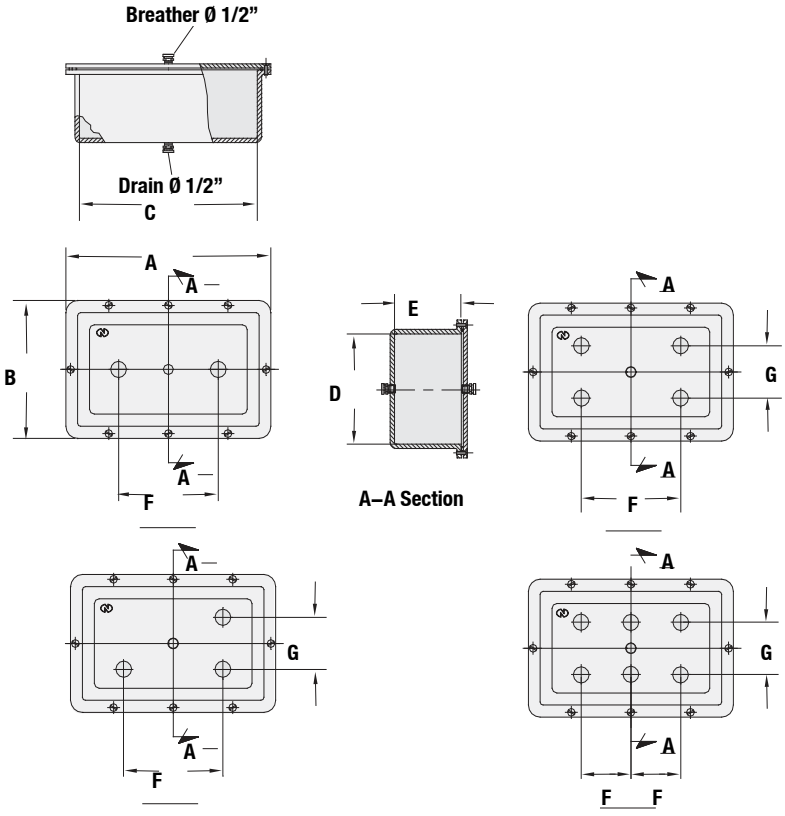
Options

- For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NTCM3203**B**F.
- For metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NTCM3203**M**F.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP54.
- Other Standards: ABNT NBR IEC 60529 (IP).

Illustrated Dimensions



Thread Equivalence

NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

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Nutsteel® NTCM3 Pull Box with Drain/Breather

Weatherproof

NBR IEC:
IP54

No. of Holes X Ø Thread	Dimensions mm (in) External A	B	C	Internal D	E	Holes F	G	Weight kg (lb)	Volume dm³ (in³)	Catalog Numbers ①
2 x 1”	300 (11.81)	300 (11.81)	230 (9.06)	230 (9.06)	100 (3.94)	170 (6.69)	—	5.41 (11.90)	10.45 (637.7)	**NTCM3203NF**
2 x 1-1/4”	350 (13.78)	200 (7.87)	295 (11.61)	145 (5.71)	150 (5.91)	220 (8.66)	—	6.49 (14.28)	12.01 (732.9)	**NTCM3204NF**
2 x 1-1/2”	350 (13.78)	200 (7.87)	295 (11.61)	145 (5.71)	150 (5.91)	220 (8.66)	—	6.46 (14.21)	26.02 (1587.8)	**NTCM3205NF**
2 x 2”	510 (20.08)	360 (14.17)	440 (17.32)	290 (11.42)	150 (5.91)	300 (11.81)	—	15.04 (33.09)	31.17 (1902.1)	**NTCM3206NF**
2 x 2-1/2”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	—	22.06 (48.53)	55.63 (3394.8)	**NTCM3207NF**
2 x 3”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	—	22.01 (48.42)	55.63 (3394.8)	**NTCM3208NF**
2 x 3-1/2”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	—	22.27 (48.99)	55.63 (3394.8)	**NTCM3209NF**
2 x 4”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	—	22.01 (48.42)	61.77 (3769.4)	**NTCM3210NF**
3 x 1”	300 (11.81)	300 (11.81)	230 (9.06)	230 (9.06)	100 (3.94)	170 (6.69)	170 (6.69)	5.41 (11.90)	10.45 (637.7)	**NTCM3303NF**
3 x 1-1/4”	350 (13.78)	200 (7.87)	295 (11.61)	145 (5.71)	150 (5.91)	220 (8.66)	70 (2.76)	6.48 (14.26)	12.01 (732.9)	**NTCM3304NF**
3 x 1-1/2”	425 (16.73)	275 (10.83)	345 (13.58)	195 (7.68)	200 (7.87)	270 (10.63)	110 (4.33)	12.3 (27.06)	26.02 (1587.8)	**NTCM3305NF**
3 x 2”	510 (20.08)	360 (14.17)	440 (17.32)	290 (11.42)	150 (5.91)	300 (11.81)	200 (7.87)	15.00 (33.00)	31.17 (1902.1)	**NTCM3306NF**
3 x 2-1/2”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	140 (5.51)	22.01 (48.42)	55.63 (3394.8)	**NTCM3307NF**
3 x 3”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	140 (5.51)	21.93 (48.25)	55.63 (3394.8)	**NTCM3308NF**
3 x 3-1/2”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	140 (5.51)	22.33 (49.13)	55.63 (3394.8)	**NTCM3309NF**
3 x 4”	680 (26.77)	530 (20.87)	605 (23.82)	455 (17.91)	150 (5.91)	440 (17.32)	280 (11.02)	21.94 (48.27)	61.77 (3769.4)	**NTCM3310NF**
4 x 1”	300 (11.81)	300 (11.81)	230 (9.06)	230 (9.06)	100 (3.94)	170 (6.69)	170 (6.69)	5.41 (11.90)	10.45 (637.7)	**NTCM3403NF**
4 x 1-1/4”	350 (13.78)	200 (7.87)	295 (11.61)	145 (5.71)	150 (5.91)	220 (8.66)	70 (2.76)	6.51 (14.32)	12.01 (732.9)	**NTCM3404NF**
4 x 1-1/2”	425 (16.73)	275 (10.83)	345 (13.58)	195 (7.68)	200 (7.87)	270 (10.63)	110 (4.33)	12.06 (26.53)	26.02 (1587.8)	**NTCM3405NF**
4 x 2”	510 (20.08)	360 (14.17)	440 (17.32)	290 (11.42)	150 (5.91)	300 (11.81)	200 (7.87)	14.96 (32.91)	31.17 (1902.1)	**NTCM3406NF**
4 x 2-1/2”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	140 (5.51)	21.97 (48.33)	55.63 (3394.8)	**NTCM3407NF**
4 x 3”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	140 (5.51)	21.86 (48.09)	55.63 (3394.8)	**NTCM3408NF**
4 x 3-1/2”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	440 (17.32)	140 (5.51)	22.39 (49.26)	55.63 (3394.8)	**NTCM3409NF**
4 x 4”	680 (26.77)	530 (20.87)	605 (23.82)	455 (17.91)	150 (5.91)	440 (17.32)	280 (11.02)	27.44 (60.37)	61.77 (3769.4)	**NTCM3410NF**
6 x 1”	300 (11.81)	300 (11.81)	230 (9.06)	230 (9.06)	100 (3.94)	110 (4.33)	170 (6.69)	5.40 (11.88)	10.45 (637.7)	**NTCM3603NF**
6 x 1-1/4”	350 (13.78)	200 (7.87)	295 (11.61)	145 (5.71)	150 (5.91)	135 (5.31)	70 (2.76)	6.52 (14.34)	12.01 (732.9)	**NTCM3604NF**
6 x 1-1/2”	425 (16.73)	275 (10.83)	345 (13.58)	195 (7.68)	200 (7.87)	1150 (5.91)	110 (4.33)	12.02 (26.44)	26.02 (1587.8)	**NTCM3605NF**
6 x 2”	510 (20.08)	360 (14.17)	440 (17.32)	290 (11.42)	150 (5.91)	300 (11.81)	200 (7.87)	14.88 (32.74)	31.17 (1902.1)	**NTCM3606NF**
6 x 2-1/2”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	220 (8.66)	140 (5.51)	21.87 (48.11)	55.63 (3394.8)	**NTCM3607NF**
6 x 3”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	220 (8.66)	140 (5.51)	21.71 (47.76)	55.63 (3394.8)	**NTCM3608NF**
6 x 3-1/2”	680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	220 (8.66)	140 (5.51)	21.81 (47.98)	55.63 (3394.8)	**NTCM3609NF**
6 x 4”	680 (26.77)	530 (20.87)	605 (23.82)	455 (17.91)	150 (5.91)	220 (8.66)	280 (11.02)	27.29 (60.04)	61.77 (3769.4)	**NTCM3610NF**

① *For BSP threads, replace the letter **N** with the letter **B**, in the 9th position; example: NTCM3203**B**F.*
*For metric threads, replace the letter **N** with the letter **M**, in the 9th position; example: NTCM3203**M**F.*

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Nutsteel® NTCM4 Floor Box

Weatherproof. Watertight

NBR IEC:
IP65

Applications

- These boxes are specially designed to be mounted in sidewalks and other flat concrete surfaces. Their checkered covers are made to withstand pedestrian traffic.
- The flanges and covers are interchangeable to permit replacement without disturbing the box or conduit system
- Used for junction, derivation and passage of electrical conductors.
- Suitable for environments containing moisture, non-flammable gases and vapors.

Features

- Checkered cover provides non-slip surface.
- Cover secures to the body with screws.
- Sealing gasket between the body and cover.
- Custom threaded entries provided. Specify location and size.
- Suitable for flush mounting.
- NPT and BSP threads: Ø 1" to Ø 4". Metric threads: M16 to M100.

Standard Materials

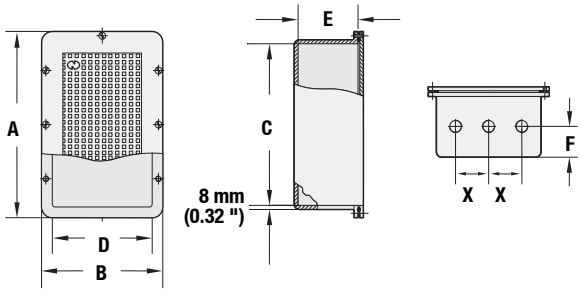
- Body and cover: diecast aluminum alloy
- Screws and flat washers: AISI 304 stainless steel
- Sealing gasket: styrene-butadiene rubber (SBR)

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure



Dimensional Illustrations



NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP65
- Other Standards: ABNT NBR IEC 60529 (IP)

Dimensions mm (in) External A	B	Internal C	D	E	F	Weight kg (lb)	Volume dm³ (in³)	Enclosure Catalog Number ①
200 (7.87)	150 (5.91)	145 (5.71)	95 (3.74)	95 (3.74)	45 (1.77)	2.23 (4.91)	3.45 (210.5)	**NTCM4P10F**
215 (8.46)	215 (8.46)	145 (5.71)	145 (5.71)	105 (4.13)	55 (2.17)	3.37 (7.41)	5.93 (361.9)	**NTCM4P11F**
205 (8.07)	205 (8.07)	150 (5.91)	150 (5.91)	150 (5.91)	75 (2.95)	3.99 (8.78)	7.14 (435.7)	**NTCM4P12F**
270 (10.63)	220 (8.66)	200 (7.87)	150 (5.91)	150 (5.91)	75 (2.95)	5.06 (11.13)	10.87 (663.3)	**NTCM4P13F**
250 (9.84)	250 (9.84)	195 (7.68)	195 (7.68)	150 (5.91)	75 (2.95)	5.14 (11.31)	10.62 (648.1)	**NTCM4P14F**
250 (9.84)	250 (9.84)	200 (7.87)	200 (7.87)	200 (7.87)	100 (3.94)	5.95 (13.09)	14.00 (854.3)	**NTCM4P15F**
300 (11.81)	200 (7.87)	240 (9.45)	140 (5.51)	150 (5.91)	75 (2.95)	5.49 (12.08)	10.40 (634.6)	**NTCM4P16F**
320 (12.60)	270 (10.63)	250 (9.84)	200 (7.87)	155 (6.10)	75 (2.95)	6.33 (13.93)	15.44 (942.2)	**NTCM4P17F**
320 (12.60)	270 (10.63)	250 (9.84)	200 (7.87)	200 (7.87)	100 (3.94)	6.89 (15.16)	19.08 (1164.3)	**NTCM4P18F**
300 (11.81)	300 (11.81)	230 (9.06)	230 (9.06)	100 (3.94)	50 (1.97)	5.26 (11.57)	10.45 (637.7)	**NTCM4P19F**
300 (11.81)	300 (11.81)	245 (9.65)	245 9 9.65)	150 (5.91)	75 (2.95)	7.33 (16.13)	14.99 (914.7)	**NTCM4P20F**
350 (13.78)	200 (7.87)	295 (11.61)	145 (5.71)	150 (5.91)	75 (2.95)	6.34 (13.95)	12.01 (732.9)	**NTCM4P21F**
350 (13.78)	350 (13.78)	290 (11.42)	290 (11.42)	150 (5.91)	75 (2.95)	10.48 (23.06)	20.82 (1270.5)	**NTCM4M10F**
425 (16.73)	275 (10.83)	345 (13.58)	195 (7.68)	200 (7.87)	100 (3.94)	11.97 (26.33)	26.02 (1587.8)	**NTCM4M11F**
455 (17.91)	355 (13.98)	390 (15.35)	290 (11.42)	155 (6.10)	75 (2.95)	14.29 (31.44)	28.39 (1732.5)	**NTCM4M12F**
510 (20.08)	360 (14.17)	445 (17.52)	295 (11.61)	110 (4.33)	55 (2.17)	13.56 (29.83)	24.07 (1468.8)	**NTCM4M13F**
510 (20.08)	360 (14.17)	440 (17.32)	290 (11.42)	150 (5.91)	55 (2.17)	14.97 (32.93)	31.17 (1902.1)	**NTCM4M14F**
540 (21.26)	390 (15.35)	455 (17.91)	305 (12.01)	255 (10.04)	125 (4.92)	20.83 (45.83)	58.49 (3569.3)	**NTCM4G10F**
500 (19.69)	500 (19.69)	445 (17.52)	445 (17.52)	150 (5.91)	75 (2.95)	19.32 (42.50)	41.99 (2562.4)	**NTCM4G11F**
680 (26.77)	370 (14.57)	595 (23.43)	290 (11.42)	200 (7.87)	100 (3.94)	22.00 (48.40)	55.63 (3394.8)	**NTCM4G12F**
680 (26.77)	530 (20.87)	605 (23.82)	455 (17.91)	150 (5.91)	75 (2.95)	27.57 (60.65)	61.77 (3769.4)	**NTCM4G13F**
700 (27.56)	700 (27.56)	610 (24.02)	610 (24.02)	150 (5.91)	76 (2.99)	40.17 (88.37)	82.83 (5054.6)	**NTCM4G14F**

① The catalog numbers located above are for base enclosures without holes. See the Ordering Information on the following pages to create a customized drilled and threaded enclosure.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NTCM4 Floor Box

Weatherproof. Watertight

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IP65

Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NTCM4P10F-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 1		Step 2		Step 3
NTCM4P10F	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

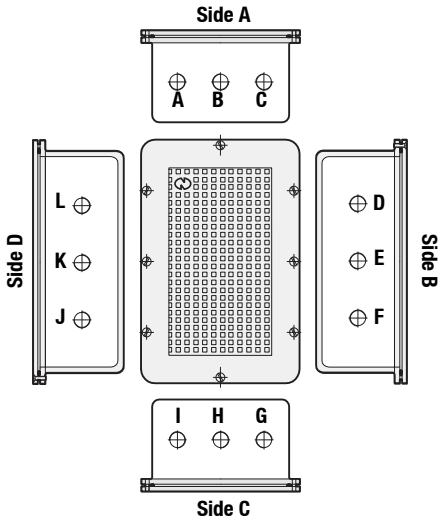
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50
07M	M63
08M	M75
09M	M90
10M	M100

Hole and Enclosure Side Locations



Thread Equivalence

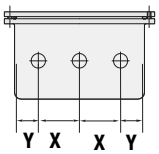
NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

Drilling Technical Data

Enclosure	Maximum Diameter Allowed Drilling
NTCM4P10F	1/2" to 2" - M16 to M50
NTCM4P11F	1/2" to 3-1/2" - M16 to M90
NTCM4P12F	1/2" to 3-1/2" - M16 to M90
NTCM4P13F	1/2" to 3-1/2" - M16 to M90
NTCM4P14F	1/2" to 3-1/2" - M16 to M90
NTCM4P15F	1/2" to 3-1/2" - M16 to M90
NTCM4P16F	1/2" to 3-1/2" - M16 to M90
NTCM4P17F	1/2" to 3-1/2" - M16 to M90
NTCM4P18F	1/2" to 3-1/2" - M16 to M90
NTCM4P19F	1/2" to 2" - M16 to M63
NTCM4P20F	1/2" to 3-1/2" - M16 to M90
NTCM4P21F	1/2" to 3-1/2" - M16 to M90
NTCM4M10F	1/2" to 3-1/2" - M16 to M90
NTCM4M11F	1/2" to 3-1/2" - M16 to M90
NTCM4M12F	1/2" to 3-1/2" - M16 to M90
NTCM4M13F	1/2" to 2" - M16 to M63
NTCM4M14F	1/2" to 4" - M16 to M100
NTCM4G10F	1/2" to 4" - M16 to M100
NTCM4G11F	1/2" to 4" - M16 to M100
NTCM4G12F	1/2" to 4" - M16 to M100
NTCM4G13F	1/2" to 4" - M16 to M100
NTCM4G14F	1/2" to 4" - M16 to M100

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Ø Nominal	1/2"	3/4"	1"	1–1/4"	1–1/2"	2"	2–1/2"	3"	3–1/2"	4"
Minimum Distance "X" Between Holes Without Union mm (in)										
1/2"	32 (1.26)	35 (1.38)	41 (1.61)	48 (1.89)	51 (2.01)	60 (2.36)	67 (2.64)	76 (2.99)	83 (3.27)	92 (3.62)
3/4"	35 (1.38)	38 (1.50)	44 (1.73)	51 (2.01)	54 (2.13)	64 (2.52)	70 (2.76)	79 (3.11)	86 (3.39)	95 (3.74)
1"	41 (1.61)	44 (1.73)	51 (2.01)	57 (2.24)	60 (2.36)	70 (2.76)	76 (2.99)	86 (3.39)	92 (3.62)	102 (4.02)
1-1/4"	48 (1.89)	51 (2.01)	57 (2.24)	64 (2.52)	67 (2.64)	76 (2.99)	83 (3.27)	92 (3.62)	98 (3.86)	114 (4.49)
1-1/2"	51 (2.01)	54 (2.13)	60 (2.36)	67 (2.64)	70 (2.76)	79 (3.11)	86 (3.39)	95 (3.74)	102 (4.02)	116 (4.57)
2"	60 (2.36)	64 (2.52)	70 (2.76)	76 (2.99)	79 (3.11)	89 (3.50)	95 (3.74)	108 (4.25)	111 (4.37)	121 (4.76)
2-1/2"	67 (2.64)	70 (2.76)	76 (2.99)	83 (3.27)	86 (3.39)	95 (3.74)	102 (4.02)	111 (4.37)	118 (4.65)	127 (5.00)
3"	76 (2.99)	79 (3.11)	86 (3.39)	92 (3.62)	95 (3.74)	108 (4.25)	111 (4.37)	121 (4.76)	127 (5.00)	137 (5.39)
3-1/2"	83 (3.27)	86 (3.39)	92 (3.62)	98 (3.86)	102 (4.02)	111 (4.37)	118 (4.65)	127 (5.00)	134 (5.28)	143 (5.63)
4"	92 (3.62)	95 (3.74)	102 (4.02)	114 (4.49)	116 (4.57)	121 (4.76)	127 (5.00)	137 (5.39)	143 (5.63)	153 (6.02)
Minimum Distance "X" Between Holes With Union mm (in)										
1/2"	60 (2.36)	66 (2.60)	70 (2.76)	77 (3.03)	79 (3.11)	89 (3.50)	89 (3.46)	109 (4.29)	118 (4.65)	126 (4.96)
3/4"	66 (2.60)	72 (2.83)	76 (2.99)	83 (3.27)	85 (3.35)	95 (3.74)	104 (4.09)	110 (4.33)	124 (4.88)	134 (5.28)
1"	70 (2.76)	76 (2.99)	79 (3.11)	86 (3.39)	89 (3.50)	99 (3.90)	108 (4.25)	118 (4.65)	127 (5.00)	135 (5.31)
1-1/4"	77 (3.03)	83 (3.27)	86 (3.39)	83 (3.27)	96 (3.78)	106 (4.17)	115 (4.53)	125 (4.92)	134 (5.28)	142 (5.59)
1-1/2"	79 (3.11)	85 (3.35)	89 (3.50)	96 (3.78)	98 (3.86)	108 (4.25)	117 (4.61)	128 (5.04)	137 (5.39)	145 (5.71)
2"	89 (3.50)	95 (3.74)	99 (3.90)	106 (4.17)	108 (4.25)	118 (4.65)	127 (5.00)	138 (5.43)	147 (5.79)	155 (6.10)
2-1/2"	89 (3.46)	104 (4.09)	108 (4.25)	115 (4.53)	117 (4.61)	127 (5.00)	136 (5.35)	147 (5.79)	156 (6.14)	164 (6.46)
3"	109 (4.29)	110 (4.33)	118 (4.65)	125 (4.92)	128 (5.04)	138 (5.43)	147 (5.79)	157 (6.18)	166 (6.54)	174 (6.85)
3-1/2"	118 (4.65)	124 (4.88)	127 (5.00)	134 (5.28)	137 (5.39)	147 (5.79)	156 (6.14)	166 (6.54)	175 (6.89)	183 (7.20)
4"	126 (4.96)	134 (5.28)	135 (5.31)	142 (5.59)	145 (5.71)	155 (6.10)	164 (6.46)	174 (6.85)	183 (7.20)	191 (7.52)
Distance "Y" mm (in)										
	11 (0.43)	13 (0.51)	17 (0.67)	21 (0.83)	24 (0.94)	30 (1.18)	36 (1.42)	44 (1.73)	51 (2.01)	57 (2.24)



Distance "X and Y"

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Nutsteel® NTJQ Junction Box

Weatherproof. Watertight

NBR IEC:
IP65



Applications

- Suitable for connection of wires and cables in areas containing non-flammable gases, fumes and moisture.
- Ideal for wet and corrosive atmospheres.

Features

- Cover fixed to the body by screws and washers.
- Sealing gasket between the body and cover.
- Assembled with terminal block.
- Custom entries provided. Specify location and size.
- One-pole terminal, for cables:
  — 26 A/750 Vac: 0.5 thru 2.5 mm^2 (0.0007 thru 0.0038 in^2)
  — 34 A/750 Vac: 4 mm^2 (0.0062 in^2)
- Furnished with external grounding connector for 6 mm^2 (0.0093 in^2) cable.
- Cable glands sold separately.
- Entry and exit of electrical conductors must be with conduit, or weatherproof cable glands.
- NPT and BSP threads: Ø 1” to Ø 4”. Metric threads: M16 to M100.

Standard Materials

- Body and cover: copperfree, diecast, aluminum alloy
- Screws and washers: AISI 304 stainless steel
- Sealing gasket: styrene-butadiene rubber (SBR)

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- Holes different from those specified may be provided, depending on the size of the box and the Ø of the cable entries. Contact your local sales representative.
- For BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NTJQ02112**B**.
- For metric threads, replace the letter **N** with the letter **M**, in the 10th position; example: NTJQ02112**M**.

NBR IEC Brazilian Certifications and Compliances

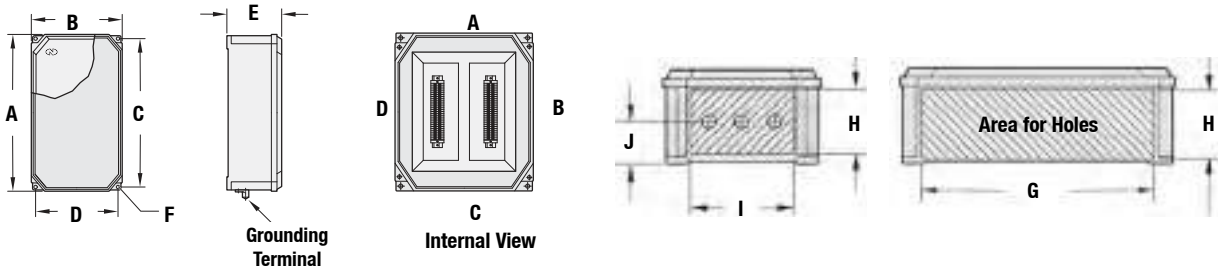
- Ingress Protection (solid and liquid): IP65.
- Other Standards: ABNT NBR IEC 60529 (IP).

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Nutsteel® NTJQ Junction Box

Weatherproof. Watertight

NBR IEC:
IP65



Quantity X No. of Terminals	Dimensions mm (in) A	B	C	D	E	Ø F	Number of Holes on Side ① 3/4" Thread G	H	I	J	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ② Junction Box	Enclosure
1-Pole Terminal — 0.0008 - 0.004 mm² (0.5 – 2.5 in²)														
1 x 12	235 (9.25)	155 (6.10)	210 (8.27)	130 (5.12)	130 (5.12)	11 (0.43)	155 (6.10)	72 (2.83)	70 (2.76)	55 (2.17)	2.96 (6.53)	4.66 (284.4)	**NTJQ02112N**	**NTCM1P4H0F**
1 x 24	355 (13.98)	295 (11.61)	330 (12.99)	260 (10.24)	170 (6.69)	11 (0.43)	265 (10.43)	115 (4.53)	180 (7.09)	75 (2.95)	8.08 (17.81)	17.42 (1063.0)	**NTJQ02124N**	**NTCM1M3H0F**
1 x 36	465 (18.31)	295 (11.61)	435 (17.13)	260 (10.24)	170 (6.69)	11 (0.43)	370 (14.57)	115 (4.53)	180 (7.09)	75 (2.95)	12.10 (26.68)	22.74 (1387.7)	**NTJQ02136N**	**NTCM1M5H0F**
1 x 48	520 (20.47)	295 (11.61)	490 (19.29)	260 (10.24)	170 (6.69)	11 (0.43)	410 (16.14)	115 (4.53)	180 (7.09)	75 (2.95)	13.10 (28.88)	26.57 (1621.4)	**NTJQ02148N**	**NTCM1M6H0F**
1 x 72	710 (27.95)	295 (11.61)	665 (26.18)	265 (10.43)	170 (6.69)	11 (0.43)	590 (23.23)	115 (4.53)	180 (7.09)	75 (2.95)	16.40 (36.16)	35.36 (2157.8)	**NTJQ02172N**	**NTCM1M9H0F**
2 x 36	465 (18.31)	370 (14.57)	445 (17.52)	340 (13.39)	225 (8.86)	11 (0.43)	370 (14.57)	170 (6.69)	265 (10.43)	105 (4.13)	16.20 (35.71)	38.30 (2337.2)	**NTJQ02236N**	**NTCM1G2H0F**
2 x 48	575 (22.64)	375 (14.76)	545 (21.46)	340 (13.39)	225 (8.86)	11 (0.43)	470 (18.50)	170 (6.69)	265 (10.43)	105 (4.13)	19.35 (42.66)	47.84 (2919.4)	**NTJQ02248N**	**NTCM1G3H0F**
2 x 72	710 (27.95)	380 (14.96)	675 (26.57)	340 (13.39)	225 (8.86)	11 (0.43)	610 (24.02)	170 (6.69)	265 (10.43)	105 (4.13)	26.50 (58.42)	59.60 (3637.0)	**NTJQ02272N**	**NTCM1G5H0F**
1-Pole Terminal — 0.0008 - 0.006 mm² (0.5 – 4.0 in²)														
1 x 12	290 (11.42)	155 (6.10)	265 (10.43)	130 (5.12)	130 (5.12)	11 (0.43)	200 (7.87)	72 (2.83)	70 (2.76)	55 (2.17)	3.80 (8.38)	5.63 (343.6)	**NTJQ04112N**	**NTCM1P5H0F**
1 x 24	420 (16.54)	295 (11.61)	390 (15.35)	260 (10.24)	170 (6.69)	11 (0.43)	320 (12.60)	115 (4.53)	180 (7.09)	75 (2.95)	9.14 (20.15)	21.18 (1292.5)	**NTJQ04124N**	**NTCM1M4H0F**
1 x 36	465 (18.31)	295 (11.61)	435 (17.13)	260 (10.24)	170 (6.69)	11 (0.43)	370 (14.57)	115 (4.53)	180 (7.09)	75 (2.95)	12.10 (26.68)	22.75 (1388.3)	**NTJQ04136N**	**NTCM1M5H0F**
1 x 48	585 (23.03)	305 (12.01)	545 (21.46)	260 (10.24)	170 (6.69)	11 (0.43)	480 (18.90)	115 (4.53)	180 (7.09)	75 (2.95)	13.30 (29.32)	31.53 (1924.1)	**NTJQ04148N**	**NTCM1M7H0F**
1 x 72	710 (27.95)	295 (11.61)	675 (26.57)	260 (10.24)	225 (8.86)	11 (0.43)	590 (23.23)	115 (4.53)	180 (7.09)	75 (2.95)	16.80 (37.04)	35.36 (2157.8)	**NTJQ04172N**	**NTCM1M9H0F**
2 x 36	465 (18.31)	370 (14.57)	445 (17.52)	340 (13.39)	225 (8.86)	11 (0.43)	370 (14.57)	170 (6.69)	265 (10.43)	105 (4.13)	16.70 (36.82)	38.29 (2336.6)	**NTJQ04236N**	**NTCM1G2H0F**
2 x 48	575 (22.64)	375 (14.76)	545 (21.46)	340 (13.39)	225 (8.86)	11 (0.43)	470 (18.50)	170 (6.69)	265 (10.43)	105 (4.13)	19.58 (43.17)	47.84 (2919.4)	**NTJQ04248N**	**NTCM1G3H0F**
2 x 72	710 (27.95)	380 (14.96)	675 (26.57)	340 (13.39)	225 (8.86)	11 (0.43)	610 (24.02)	170 (6.69)	265 (10.43)	105 (4.13)	26.81 (59.11)	59.56 (3634.6)	**NTJQ04272N**	**NTCM1G5H0F**

① *The number of holes indicated corresponds to the maximum number of holes allowed on each side, according to the drawing. When ordering, please indicate the number of holes and diameter desired on each side.*
② *For BSP threads, replace the letter **N** with the letter **B**, in the 10th position; example: NTJQ02112**B**.*
*For metric threads, replace the letter **N** with the letter **M**, in the 10th position; example: NTJQ02112**M**.*

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NTJQ Junction Box

Weatherproof. Watertight

NBR IEC:
IP65

Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NTJQ02112N-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 1		Step 2		Step 3
NTJQ02112N	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

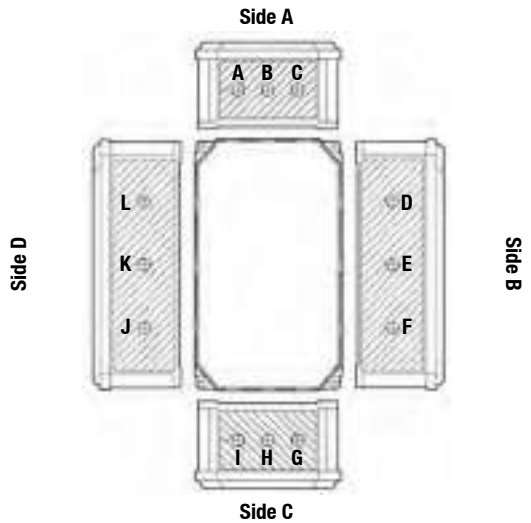
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50
07M	M63
08M	M75
09M	M90
10M	M100

Hole and Enclosure Side Locations



Thread Equivalence

NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

Drilling Technical Data

Enclosure	Maximum Diameter Allowed Drilling
NTJQ02112N	1/2" to 2-1/2" - M16 to M75
NTJQ02124N	1/2" to 3-1/2" - M16 to M90
NTJQ02136N	1/2" to 3-1/2" - M16 to M90
NTJQ02148N	1/2" to 3-1/2" - M16 to M90
NTJQ02172N	1/2" to 3-1/2" - M16 to M90
NTJQ02236N	1/2" to 4" - M16 to M100
NTJQ02248N	1/2" to 4" - M16 to M100
NTJQ02272N	1/2" to 4" - M16 to M100
NTJQ04112N	1/2" to 4" - M16 to M100
NTJQ04124N	1/2" to 3-1/2" - M16 to M90
NTJQ04136N	1/2" to 3-1/2" - M16 to M90
NTJQ04148N	1/2" to 3-1/2" - M16 to M90
NTJQ04172N	1/2" to 3-1/2" - M16 to M90
NTJQ04236N	1/2" to 4" - M16 to M100
NTJQ04248N	1/2" to 4" - M16 to M100
NTJQ04272N	1/2" to 4" - M16 to M100

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Notes

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DISTRIBUTION EQUIPMENT

Distributing power with total safety is our goal, which has defined our products for generations. Your customers and employees deserve this ongoing commitment to safety. The durability of Nutsteel products coupled with the ease of installation provides low installation costs today and minimal maintenance costs in the future.







DISTRIBUTION EQUIPMENT

Distribution Equipment

Description	Page	NEC	CEC	ATEX / IEC	NBR IEC
ATEX/IECEx/NBR IEC Increased Safety Ex e/Flameproof Ex d Zone 1 Rated Circuit Breakers					
ATX CBU and SWU Series Branch Circuit Breakers and Switches	346			X	X
NBR IEC Zone 1 Rated Hazardous and Ordinary Location Circuit Breakers and Switches					
Nutsteel NEDJ Circuit Breaker	350				X
Nutsteel NEIN Switch	360				X
Nutsteel NTDJ Circuit Breaker	365				X
NBR IEC Zone 1 Rated Hazardous Location Panelboards					
Nutsteel NEPAC Distribution, Power and Protection Panelboard	370				X
Nutsteel NEPAD Distribution, Power and Protection Panelboard	376				X
NBR IEC Switchracks					
Nutsteel Custom Switchracks	380				X



CBU/SWU



NEDJ/NEIN



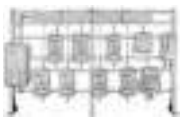
NTDJ



NEPAC



NEPAD



Switchracks

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A.T.X.® CBU and SWU Series Branch Circuit Breakers and Switches

For Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2
Ⓔx II 2 GD

NBR IEC:
Zone 1 and 2
Ex de IIC

Applications

- Useful as back-up circuit breaker protection or as main circuit breaker protection for hazardous areas.
- To be fitted inside increased safety Ex e enclosures.

Features

- Up to 40 A for 2-pole circuit breaker versions.
- Up to 63 A for 2-pole with GFI, 3-pole and 4-pole circuit breaker versions.
- Up to 63 A for switch versions.
- Breaking capacity 10 kA – 400 V according to EN/IEC 60947-2 standard.
- Breaking capacity 6 kA-400 V according to EN/IEC 60898 standard.
- Supplied with front rotary control handle padlockable in OFF position.
- Terminal capacity: 0.002/1 x 0.039/25 in^2/mm^2.
- Mounting in polyester (ECEP series) or in 316L stainless steel (ECES series) enclosures. Can be fixed either on the door or at the back of the enclosure.

Standard Materials

- Housing: polyamide

ATEX/IECEx Certifications and Compliances

- Certification Type IT40U (2-pole versions)
  - — Gas, Zones 1 and 2 (Authorized to be used in an approved dustproof enclosure)
  - — Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
  - — Symbol of Protection ATEX/IEC: Ex de IIC
  - — Service Temperature: -20 °C to +100 °C (-4 °F to +212 °F)
  - — CE Declaration of Conformity: 5C216
  - — ATEX Certificate: LCIE 02 ATEX 0035U
  - — IEC Certificate: IECEX LCI 04.0033U
  - — Other Certifications: GOST
- Certification Type CBU (2-pole GFI, 3-pole and 4-pole versions)
  - — Gas, Zones 1 and 2 (Authorized to be used in an approved dustproof enclosure)
  - — Conforming to ATEX 94/9/CE: 0081 Ⓔx II 2 G
  - — Symbol of Protection ATEX/IEC: Ex de IIC
  - — Service Temperature: -20 °C to +100 °C (-4 °F to +212 °F)
  - — CE Declaration of Conformity: 5C244
  - — ATEX Certificate: LCIE 09 ATEX 3068U
  - — IEC Certificate: IECEX LCI 09.0023L
- Ex Standards: EN/IEC 60079-0; 60079-1; 60079-7
- Product Standards: EN/IEC 60947-1; 60947-2; 60947-3



2–Pole Circuit Breaker with GFI



4–Pole Circuit Breaker



2–Pole Circuit Breaker



4–Pole Switch

NBR IEC Brazilian Certifications and Compliances

- Certification Type CBU (2-pole versions)
  - — Gas, Zones 1 and 2 (Authorized to be used in an approved dustproof enclosure)
  - — Service Temperature: -20 °C to +100 °C (-4 °F to +212 °F)
- Certification Type CBU (2-pole GFI, 3-pole and 4-pole versions)
  - — Gas, Zones 1 and 2 (Authorized to be used in an approved dustproof enclosure)
  - — Marking: Ex de IIC Gb
  - — Service Temperature: -20 °C to +85 °C (-4 °F to +212 °F)
  - — Brazilian Certificate: BVC 10.0011-U
- Certification Type IT40-U (2-pole versions)
  - — Gas, Zones 1 and 2 (Authorized to be used in an approved dustproof enclosure)
  - — Marking: Ex de IIC Gb
  - — Service Temperature: -25 °C to +60 °C (-13 °F to + 149 °F)
  - — Brazilian Certificate: BVC 11.0594-U
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7

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A.T.X.® CBU and SWU Series Branch Circuit Breakers and Switches

For Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2
Ⓔx II 2 GD

NBR IEC:
Zone 1 and 2
Ex de IIC

Catalog Numbering Guide — ATEX/IECEx or NBR IEC Certified Branch Circuit Breakers and Switches

CBU | **1** | **01** | **B** | **R1** | **5**

Circuit Breaker Series:
CBU - Zone 1 and 2, ATEX/IECEx Certified
NCBU - Zone 1 and 2, NBR IEC Certified

Switch Series:
SWU - Zone 1 and 2, ATEX/IECEx Certified
NSWU - Zone 1 and 2, NBR IEC Certified

Intensity: ①

01 - 1 A	20 - 20 A
02 - 2 A	25 - 25 A
03 - 3 A	32 - 32 A
04 - 4 A	40 - 40 A
06 - 6 A	50 - 50 A
10 - 10 A	63 - 63 A
16 - 16 A	

GFI:
R1 - 30 mA
R2 - 300 mA

Number of Poles:
1 - 1-Pole
2 - 2-Poles
3 - 3-Poles
4 - 4-Poles
9 - 1-Pole + Neutral

Curve Type:
B - Curve B
C - Curve C
D - Curve D

Options:
5 - 440 Vac
6 - 480 Vac
F5 - NO Fault Indication Contact
F9 - NC Fault Indication Contact
S5 - NO Auxiliary Contact
S9 - NC Auxiliary Contact
M - 10 kA/15 kA Breaking Capacity

① SWU and NSWU Series Switches: Up to 40 Amps for 2-pole version. Up to 63 Amps for 3- and 4-pole versions. Example: 3-pole, 25 Amp switch – SWU325.

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A.T.X.® CBU and SWU Series Branch Circuit Breakers and Switches

For Increased Safety Enclosures

ATEX/IECEx:
Zone 1 and 2
Ⓔx II 2 GD

NBR IEC:
Zone 1 and 2
Ex de IIC

Circuit Breakers – CBU Series

	Weight kg (lbs)	Volume dm³ (in³)	Certified Type	Catalog Number IECEx	Catalog Number NBR IEC
2-Pole Branch Circuit Breaker – 400 Vac – 125 Vdc – Tripping Curve C					
2 x 6 A	1.9 (4.19)	1.1 (0.002)	IT40U	**CBU206C**	**NCBU206C**
2 x 10 A	1.9 (4.19)	1.1 (0.002)	IT40U	**CBU210C**	**NCBU210C**
2 x 16 A	1.9 (4.19)	1.1 (0.002)	IT40U	**CBU216C**	**NCBU216C**
2 x 20 A	1.9 (4.19)	1.1 (0.002)	IT40U	**CBU220C**	**NCBU220C**
2-Pole GFI Branch Circuit Breaker – 400 Vac – 125 Vdc – Tripping Curve C					
2 x 10 A/30 mA	1.9 (4.19)	3.1 (0.005)	CBU	**CBU210CR1**	**NCBU210CR1**
2 x 16 A/30 mA	1.9 (4.19)	3.1 (0.005)	CBU	**CBU216CR1**	**NCBU216CR1**
2 x 20 A/30 mA	1.9 (4.19)	3.1 (0.005)	CBU	**CBU220CR1**	**NCBU220CR1**
2 x 10 A/300 mA	1.9 (4.19)	3.1 (0.005)	CBU	**CBU210CR2**	**NCBU210CR2**
2 x 16 A/300 mA	1.9 (4.19)	3.1 (0.005)	CBU	**CBU216CR2**	**NCBU216CR2**
2 x 20 A/300 mA	1.9 (4.19)	3.1 (0.005)	CBU	**CBU220CR2**	**NCBU220CR2**
3-Pole Branch Circuit Breaker – 400 Vac – 125 Vdc – Tripping Curve C					
3 x 10 A	1.9 (4.19)	3.1 (0.005)	CBU	**CBU310C**	**NCBU310C**
3 x 16 A	1.9 (4.19)	3.1 (0.005)	CBU	**CBU316C**	**NCBU316C**
3 x 20 A	1.9 (4.19)	3.1 (0.005)	CBU	**CBU320C**	**NCBU320C**
4-Pole Branch Circuit Breaker – 400 Vac – 125 Vdc – Tripping Curve C					
4 x 10 A	1.9 (4.19)	3.1 (0.005)	CBU	**CBU410C**	**NCBU410C**
4 x 16 A	1.9 (4.19)	3.1 (0.005)	CBU	**CBU416C**	**NCBU416C**
4 x 20 A	1.9 (4.19)	3.1 (0.005)	CBU	**CBU420C**	**NCBU420C**

Relays and Contactors – RCU Series

2 and 4-pole versions:
- Rated current: 20 A, 24 A, 40 A and 63 A.
- Rated voltage: Up to 400 V - 50/60 Hz.
- Coil voltage: Up to 230 V - 50/60 Hz.
- Consult factory for further details.

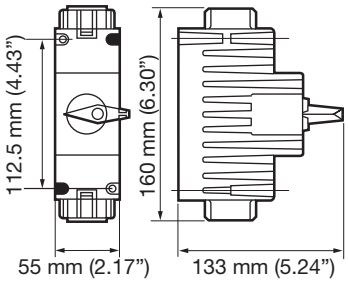
CBU and SWU Bracket

Description	Catalog Number IECEx	Catalog Number NBR IEC
Bracket for door fixing for 2-pole MCB	**096650**	**N096650**

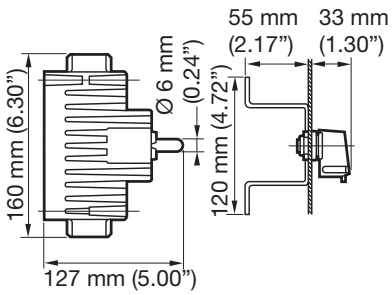
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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Dimension in Millimeters (Inches)

2–Pole Versions

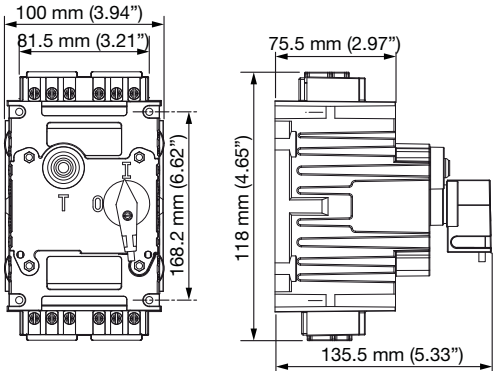


CBU or SWU

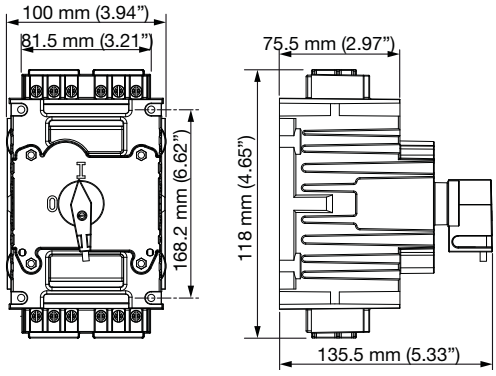


With Catalog Number 096650 for IT40U

2–Pole with GFI, 3–Pole and 4–Pole Versions



CBU



SWU

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Nutsteel® NEDJ Circuit Breaker

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Applications

- This is a system for protection against shocks, overloads and short circuits.
- Used in areas where there is risk of explosion.
- Ideal for use in industries such as:
  - — Chemical processing facilities
  - — Petrochemical processing facilities
  - — Paint and varnish manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint spray booths,
  - — Flammable product storage facilities

Features

- Circuit breakers with optional GFI device.
  - — Uses an automatic breaker switch that disconnects low-intensity electric currents (on the order of hundredths of ampere) that a common circuit breaker cannot detect, but can be fatal if they traverse the human body.
- Circuit breakers available starting at 1 ampere.
- Thermo-magnetic circuit breaker, 1-, 2-and 3-pole, suitable for control and protection of electrical circuits against overloads and short circuits.
- Supplied with chassis for mounting components.
- When using only one threaded entry, the other one must be sealed with a plug.
- Circuit breakers have terminals for electrical connections:
  - — 25 mm² (0.0388 in²) cables for circuit breakers up to 25 Amp
  - — 35 mm² (0.0543 in²) cables for circuit breakers from 35 Amp to 63 Amp
- Exd: Flameproof method of protection suitable for Zone 1 and 2.
- Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.
- To assure the appropriate level of safety, preventing the propagation of the explosion through the gap, we recommend fixing the cover with all of the screws and following the torque specified.

Standard Materials

- Enclosure body and cover: copperfree diecast aluminum alloy
- Screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

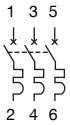
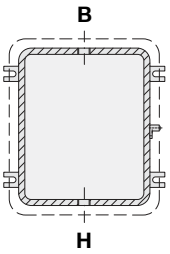


- Holes different from those specified may be provided, depending on the size of the box and the diameter of the cable entries. Contact your local sales representative.

NBR IEC Brazilian Certifications and Compliances

- Temperature Class: T6
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)
- Certificate of Compliance: TÜV 12.0430X

Threaded Entries

Circuit Breaker			
1-Pole	2-Pole	3-Pole	
			

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NEDJ Circuit Breaker

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Circuit Breaker, Technical Features: C Curve ①									Screws					
			Breaking Capacity (kA)											
Qty.	No of Poles	Nominal Current (A)	220V 240V	380V 415V	400V 415V	440V	Nominal Voltage (V)	Enclosure Type	Ø Thread B – H	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③
1	1	6	10	—	—	—	220	NECM1P2H0	3/4”	0.50	7/16”	4.51 (9.94)	7.68 (468.7)	**NEDJ011006N**
1	1	10	10	—	—	—	220	NECM1P2H0	3/4”	0.50	7/16”	4.51 (9.94)	7.68 (468.7)	**NEDJ011010N**
1	1	16	10	—	—	—	220	NECM1P2H0	3/4”	0.50	7/16”	4.51 (9.94)	7.68 (468.7)	**NEDJ011016N**
1	1	20	10	—	—	—	220	NECM1P2H0	3/4”	0.50	7/16”	4.51 (9.94)	7.68 (468.7)	**NEDJ011020N**
1	1	25	10	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	6.77 (14.93)	13.89 (847.6)	**NEDJ011025N**
1	1	32	10	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	6.77 (14.93)	13.89 (847.6)	**NEDJ011032N**
1	2	6	20	—	10	6	440	NECM1P2H0	3/4”	0.50	7/16”	4.61 (10.16)	7.68 (468.7)	**NEDJ012006N**
1	2	10	20	—	10	6	440	NECM1P2H0	3/4”	0.50	7/16”	4.61 (10.16)	7.68 (468.7)	**NEDJ012010N**
1	2	16	20	—	10	6	440	NECM1P2H0	3/4”	0.50	7/16”	4.61 (10.16)	7.68 (468.7)	**NEDJ012016N**
1	2	20	20	—	10	6	440	NECM1P2H0	3/4”	0.50	7/16”	4.61 (10.16)	7.68 (468.7)	**NEDJ012020N**
1	2	25	20	—	10	6	440	NECM1P3H0	3/4”	0.50	7/16”	6.77 (14.93)	13.89 (847.6)	**NEDJ012025N**
1	2	32	20	—	10	6	440	NECM1P3H0	3/4”	0.50	7/16”	6.87 (15.15)	13.89 (847.6)	**NEDJ012032N**
1	3	6	20	—	10	6	440	NECM1P5H0	3/4”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013006N**
1	3	10	20	—	10	6	440	NECM1P5H0	3/4”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013010N**
1	3	16	20	—	10	6	440	NECM1P5H0	3/4”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013016N**
1	3	20	20	—	10	6	440	NECM1P5H0	3/4”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013020N**
1	3	25	20	—	10	6	440	NECM1P5H0	3/4”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013025N**
1	3	32	20	—	10	6	440	NECM1P5H0	3/4”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013032N**
1	3	40	20	—	10	6	440	NECM1P5H0	1”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013040N**
1	3	50	20	—	10	6	440	NECM1P5H0	1”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013050N** ④
1	3	63	20	—	10	6	440	NECM1P5H0	1-1/2”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013063N** ④
1	3	70	25	16	—	10	440	NECM1P5H0	1-1/2”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013070N** ④
1	3	80	25	16	—	10	440	NECM1P5H0	1-1/2”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013080N** ④
1	3	100	25	16	—	10	440	NECM1P5H0	1-1/2”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013100N** ④
1	3	125	25	16	—	10	440	NECM1P5H0	1-1/2”	0.50	7/16”	13.83 (30.49)	16.28 (993.5)	**NEDJ013125N** ④

① C Curve, for all circuit breakers up to 63 A.
*② NPT thread at position BH. For BSP threads, substitute the letter **N** with the letter **B**, in the 11th position; For Metric threads, substitute for letter **M**; Example: NEDJ011006**B**.*
③ All breakers can be supplied with the following amperage: 1 A, 2 A, 3 A and 4 A. Sample code for two amperage breaker: NEDJ011002N.
④ Use of sealing unit or cable glands is allowed for all models, except for models NEDJ013050N to NEDJ013125N, which must be assembled with cable glands only.

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Nutsteel® NEDJ Circuit Breaker

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Circuit Breaker, Technical Features: C Curve ①									Screws					
		Nominal	Breaking Capacity (kA)				Nominal							
Qty.	No of Poles	Current (A)	220V 240V	380V 415V	400V 415V	440V	Voltage (V)	Enclosure Type	Ø Thread B – H	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ②③
2	1	6	10	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	8.01 (17.66)	13.89 (847.6)	**NEDJ021006N**
2	1	10	10	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	8.01 (17.66)	13.89 (847.6)	**NEDJ021010N**
2	1	16	10	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	8.01 (17.66)	13.89 (847.6)	**NEDJ021016N**
2	1	20	10	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	8.01 (17.66)	13.89 (847.6)	**NEDJ021020N**
2	1	25	10	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	8.01 (17.66)	13.89 (847.6)	**NEDJ021025N**
2	1	32	10	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	9.08 (20.02)	16.84 (1027.6)	**NEDJ021032N**
2	2	6	20	—	10	6	440	NECM1P4H0	3/4”	0.50	7/16”	9.28 (20.46)	16.84 (1027.6)	**NEDJ022006N**
2	2	10	20	—	10	6	440	NECM1P4H0	3/4”	0.50	7/16”	9.28 (20.46)	16.84 (1027.6)	**NEDJ022010N**
2	2	16	20	—	10	6	440	NECM1P4H0	3/4”	0.50	7/16”	9.28 (20.46)	16.84 (1027.6)	**NEDJ022016N**
2	2	20	20	—	10	6	440	NECM1P4H0	3/4”	0.50	7/16”	9.28 (20.46)	16.84 (1027.6)	**NEDJ022020N**
2	2	25	20	—	10	6	440	NECM1P4H0	3/4”	0.50	7/16”	9.28 (20.46)	16.84 (1027.6)	**NEDJ022025N**
2	2	32	20	—	10	6	440	NECM1P4H0	3/4”	0.50	7/16”	9.28 (20.46)	16.84 (1027.6)	**NEDJ022032N**
3	1	6	10	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.32 (22.75)	16.84 (1027.6)	**NEDJ031006N**
3	1	10	10	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.32 (22.75)	16.84 (1027.6)	**NEDJ031010N**
3	1	16	10	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.32 (22.75)	16.84 (1027.6)	**NEDJ031016N**
3	1	20	10	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.32 (22.75)	16.84 (1027.6)	**NEDJ031020N**
3	1	25	10	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.32 (22.75)	16.84 (1027.6)	**NEDJ031025N**
3	1	32	10	—	—	—	220	NECM1P4H0	1”	0.50	7/16”	10.31 (22.73)	16.84 (1027.6)	**NEDJ031032N**
3	2	6	20	—	10	6	440	NECM1P5H0	3/4”	0.50	7/16”	12.16 (26.81)	20.21 (1233.3)	**NEDJ032006N**
3	2	10	20	—	10	6	440	NECM1P5H0	1”	0.50	7/16”	12.16 (26.81)	20.21 (1233.3)	**NEDJ032010N**
3	2	16	20	—	10	6	440	NECM1P5H0	1"	0.50	7/16"	12.16 (26.81)	20.21 (1233.3)	**NEDJ032016N**
3	2	20	20	—	10	6	440	NECM1P5H0	1”	0.50	7/16”	12.16 (26.81)	20.21 (1233.3)	**NEDJ032020N**
3	2	25	20	—	10	6	440	NECM1P5H0	1”	0.50	7/16”	12.16 (26.81)	20.21 (1233.3)	**NEDJ032025N**
3	2	32	20	—	10	6	440	NECM1P5H0	1”	0.50	7/16”	12.16 (26.81)	20.21 (1233.3)	**NEDJ032032N**

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Nutsteel® NEDJ Circuit Breaker

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Circuit Breaker, Technical Features: C Curve ①									Screws					
			Breaking Capacity (kA)											
Qty.	No of Poles	Nominal Current (A)	220V 240V	380V 415V	400V 415V	440V	Nominal Voltage (V)	Enclosure Type	Ø Thread B – H	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③
4	1	6	10	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.10 (28.88)	20.21 (1233.3)	**NEDJ041006N**
4	1	10	10	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.10 (28.88)	20.21 (1233.3)	**NEDJ041010N**
4	1	16	10	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.10 (28.88)	20.21 (1233.3)	**NEDJ041016N**
4	1	20	10	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.10 (28.88)	20.21 (1233.3)	**NEDJ041020N**
4	1	25	10	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.10 (28.88)	20.21 (1233.3)	**NEDJ041025N**
4	1	32	10	—	—	—	220	NECM1P5H0	1-1/4”	0.50	7/16”	13.10 (28.88)	24.05 (1467.6)	**NEDJ041032N**
4	2	6	20	—	10	6	440	NECM1P6H0	1-1/4”	0.50	7/16”	14.90 (32.85)	24.05 (1467.6)	**NEDJ042006N**
4	2	10	20	—	10	6	440	NECM1P6H0	1-1/4”	0.50	7/16”	14.90 (32.85)	24.05 (1467.6)	**NEDJ042010N**
4	2	16	20	—	10	6	440	NECM1P6H0	1-1/4”	0.50	7/16”	14.90 (32.85)	24.05 (1467.6)	**NEDJ042016N**
4	2	20	20	—	10	6	440	NECM1P6H0	1-1/4”	0.50	7/16”	14.90 (32.85)	24.05 (1467.6)	**NEDJ042020N**
4	2	25	20	—	10	6	440	NECM1P6H0	1-1/4”	0.50	7/16”	14.90 (32.85)	24.05 (1467.6)	**NEDJ042025N**
4	2	32	20	—	10	6	440	NECM1P6H0	1-1/4”	0.50	7/16”	14.90 (32.85)	24.05 (1467.6)	**NEDJ042032N**
5	1	6	10	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	14.90 (32.85)	24.05 (1467.6)	**NEDJ051006N**
5	1	10	10	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	15.74 (34.70)	24.05 (1467.6)	**NEDJ051010N**
5	1	16	10	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	15.74 (34.70)	24.05 (1467.6)	**NEDJ051016N**
5	1	20	10	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	15.74 (34.70)	24.05 (1467.6)	**NEDJ051020N**
5	1	25	10	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	15.74 (34.70)	24.05 (1467.6)	**NEDJ051025N**
5	1	32	10	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	15.74 (34.70)	24.05 (1467.6)	**NEDJ051032N**
5	2	6	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	17.79 (39.22)	30.03 (1832.5)	**NEDJ052006N**
5	2	10	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	17.79 (39.22)	30.03 (1832.5)	**NEDJ052010N**
5	2	16	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	17.79 (39.22)	30.03 (1832.5)	**NEDJ052016N**
5	2	20	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	17.79 (39.22)	30.03 (1832.5)	**NEDJ052020N**

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③ All breakers can be supplied with the following amperage: 1 A, 2 A, 3 A and 4 A. Sample code for two amperage breaker: NEDJ011002N.

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Nutsteel® NEDJ Circuit Breaker

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NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
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IP65

Circuit Breaker, Technical Features: C Curve ①									Screws					
		Nominal	Breaking Capacity (kA)				Nominal							
Qty.	No of Poles	Current (A)	220V 240V	380V 415V	400V 415V	440V	Voltage (V)	Enclosure Type	Ø Thread B – H	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③
5	2	25	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	17.79 (39.22)	30.03 (1832.5)	**NEDJ052025N**
5	2	32	20	—	10	6	440	NECM1P7H0	2”	0.50	7/16”	17.77 (39.17)	30.03 (1832.5)	**NEDJ052032N**
6	1	6	10	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	18.54 (40.87)	30.03 (1832.5)	**NEDJ061006N**
6	1	10	10	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	18.54 (40.87)	30.03 (1832.5)	**NEDJ061010N**
6	1	16	10	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	18.54 (40.87)	30.03 (1832.5)	**NEDJ061016N**
6	1	20	10	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	18.54 (40.87)	30.03 (1832.5)	**NEDJ061020N**
6	1	25	10	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	18.54 (40.87)	30.03 (1832.5)	**NEDJ061025N**
6	1	32	10	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	18.54 (40.87)	30.03 (1832.5)	**NEDJ061032N**
6	2	6	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	19.13 (42.17)	30.03 (1832.5)	**NEDJ062006N**
6	2	10	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	19.13 (42.17)	30.03 (1832.5)	**NEDJ062010N**
6	2	16	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	19.13 (42.17)	30.03 (1832.5)	**NEDJ062016N**
6	2	20	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	19.13 (42.17)	30.03 (1832.5)	**NEDJ062020N**
6	2	25	20	—	10	6	440	NECM1P7H0	1-1/2”	0.50	7/16”	19.13 (42.17)	30.03 (1832.5)	**NEDJ062025N**
6	2	32	20	—	10	6	440	NECM1P7H0	2”	0.50	7/16”	19.11 (42.13)	30.03 (1832.5)	**NEDJ062032N**
Circuit Breaker with GFI														
1	1	6	4.5	—	—	—	220	NECM1P2H0	3/4”	0.50	7/16”	4.60 (10.14)	7.68 (468.7)	**NEDJ011006ND**
1	1	10	4.5	—	—	—	220	NECM1P2H0	3/4”	0.50	7/16”	4.60 (10.14)	7.68 (468.7)	**NEDJ011010ND**
1	1	16	4.5	—	—	—	220	NECM1P2H0	3/4”	0.50	7/16”	4.60 (10.14)	7.68 (468.7)	**NEDJ011016ND**
1	1	20	4.5	—	—	—	220	NECM1P2H0	3/4”	0.50	7/16”	4.60 (10.14)	7.68 (468.7)	**NEDJ011020ND**
1	2	6	20	—	10	—	220/415	NECM1P3H0	3/4”	0.50	7/16”	6.92 (15.26)	13.89 (847.6)	**NEDJ012006ND**
1	2	10	20	—	10	—	220/415	NECM1P3H0	3/4”	0.50	7/16”	6.92 (15.26)	13.89 (847.6)	**NEDJ012010ND**
1	2	16	20	—	10	—	220/415	NECM1P3H0	3/4”	0.50	7/16”	6.92 (15.26)	13.89 (847.6)	**NEDJ012016ND**

① C Curve, for all circuit breakers up to 63 A.
*② NPT thread at position BH. For BSP threads, substitute the letter **N** with the letter **B**, in the 11th position; For Metric threads, substitute for letter **M**; Example: NEDJ011006**B**.*
③ All breakers can be supplied with the following amperage: 1 A, 2 A, 3 A and 4 A. Sample code for two amperage breaker: NEDJ011002N.

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Nutsteel® NEDJ Circuit Breaker

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Circuit Breaker, Technical Features: C Curve ①									Screws					
			Breaking Capacity (kA)											
Qty.	No of Poles	Nominal Current (A)	220V 240V	380V 415V	400V 415V	440V	Nominal Voltage (V)	Enclosure Type	Ø Thread B – H	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③
1	2	20	20	—	10	—	220/415	NECM1P3H0	3/4”	0.50	7/16”	6.92 (15.26)	13.89 (847.6)	**NEDJ012020ND**
1	1	25	4.5	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	6.85 (15.10)	13.89 (847.6)	**NEDJ011025ND**
1	1	32	4.5	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	6.85 (15.10)	13.89 (847.6)	**NEDJ011032ND**
1	2	25	20	—	10	—	220/415	NECM1P3H0	3/4”	0.50	7/16”	6.92 (15.26)	13.89 (847.6)	**NEDJ012025ND**
1	2	32	20	—	10	—	220/415	NECM1P3H0	3/4”	0.50	7/16”	6.92 (15.26)	13.89 (847.6)	**NEDJ012032ND**
2	1	6	4.5	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	7.17 (15.81)	13.89 (847.6)	**NEDJ021006ND**
2	1	10	4.5	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	7.17 (15.81)	13.89 (847.6)	**NEDJ021010ND**
2	1	16	4.5	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	7.17 (15.81)	13.89 (847.6)	**NEDJ021016ND**
2	1	20	4.5	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	7.17 (15.81)	13.89 (847.6)	**NEDJ021020ND**
2	1	25	4.5	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	7.17 (15.81)	13.89 (847.6)	**NEDJ021025ND**
2	1	32	4.5	—	—	—	220	NECM1P3H0	3/4”	0.50	7/16”	7.17 (15.81)	13.89 (847.6)	**NEDJ021032ND**
2	2	6	20	—	10	—	220/415	NECM1P4H0	3/4”	0.50	7/16”	9.58 (21.12)	16.84 (1027.6)	**NEDJ022006ND**
2	2	10	20	—	10	—	220/415	NECM1P4H0	3/4”	0.50	7/16”	9.58 (21.12)	16.84 (1027.6)	**NEDJ022010ND**
2	2	16	20	—	10	—	220/415	NECM1P4H0	3/4”	0.50	7/16”	9.58 (21.12)	16.84 (1027.6)	**NEDJ022016ND**
2	2	20	20	—	10	—	220/415	NECM1P4H0	3/4”	0.50	7/16”	9.58 (21.12)	16.84 (1027.6)	**NEDJ022020ND**
2	2	25	20	—	10	—	220/415	NECM1P4H0	3/4”	0.50	7/16”	9.58 (21.12)	16.84 (1027.6)	**NEDJ022025ND**
2	2	32	20	—	10	—	220/415	NECM1P4H0	3/4”	0.50	7/16”	9.58 (21.12)	16.84 (1027.6)	**NEDJ022032ND**
3	1	6	4.5	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.56 (23.28)	16.84 (1027.6)	**NEDJ031006ND**
3	1	10	4.5	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.56 (23.28)	16.84 (1027.6)	**NEDJ031010ND**
3	1	16	4.5	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.56 (23.28)	16.84 (1027.6)	**NEDJ031016ND**
3	1	20	4.5	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.56 (23.28)	16.84 (1027.6)	**NEDJ031020ND**
3	1	25	4.5	—	—	—	220	NECM1P4H0	3/4”	0.50	7/16”	10.56 (23.28)	16.84 (1027.6)	**NEDJ031025ND**

① C Curve, for all circuit breakers up to 63 A.
*② NPT thread at position BH. For BSP threads, substitute the letter **N** with the letter **B**, in the 11th position; For Metric threads, substitute for letter **M**; Example: NEDJ011006**B**.*
③ All breakers can be supplied with the following amperage: 1 A, 2 A, 3 A and 4 A. Sample code for two amperage breaker: NEDJ011002N.

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Nutsteel® NEDJ Circuit Breaker

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Circuit Breaker, Technical Features: C Curve ①										Screws				
		Nominal	Breaking Capacity (kA)				Nominal							
Qty.	No of Poles	Current (A)	220V 240V	380V 415V	400V 415V	440V	Voltage (V)	Enclosure Type	Ø Thread B – H	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③
3	1	32	4.5	—	—	—	220	NECM1P4H0	1”	0.50	7/16”	10.56 (23.28)	16.84 (1027.6)	**NEDJ031032ND**
1	3	6	20	—	10	—	220/415	NECM1P5H0	3/4”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013006ND**
1	3	10	20	—	10	—	220/415	NECM1P5H0	3/4”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013010ND**
1	3	16	20	—	10	—	220/415	NECM1P5H0	3/4”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013016ND**
1	3	20	20	—	10	—	220/415	NECM1P5H0	3/4”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013020ND**
1	3	25	20	—	10	—	220/415	NECM1P5H0	3/4”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013025ND**
1	3	32	20	—	10	—	220/415	NECM1P5H0	3/4”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013032ND**
1	3	40	20	—	10	—	220/415	NECM1P5H0	1”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013040ND**
1	3	50	20	—	10	—	220/415	NECM1P5H0	1”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013050ND**
1	3	63	20	—	10	—	220/415	NECM1P5H0	1-1/2”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013063ND**
1	3	80	20	—	10	—	220/415	NECM1P5H0	1-1/2”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013080ND**
1	3	100	20	—	10	—	220/415	NECM1P5H0	1-1/2”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013100ND**
1	3	125	20	—	10	—	220/415	NECM1P5H0	1-1/2”	0.50	7/16”	14.07 (31.02)	16.28 (993.5)	**NEDJ013125ND**
4	1	6	4.5	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.31 (29.34)	16.28 (993.5)	**NEDJ041006ND**
4	1	10	4.5	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.31 (29.34)	16.28 (993.5)	**NEDJ041010ND**
4	1	16	4.5	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.31 (29.34)	16.28 (993.5)	**NEDJ041016ND**
4	1	20	4.5	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.31 (29.34)	16.28 (993.5)	**NEDJ041020ND**
4	1	25	4.5	—	—	—	220	NECM1P5H0	1”	0.50	7/16”	13.31 (29.34)	16.28 (993.5)	**NEDJ041025ND**
4	1	32	4.5	—	—	—	220	NECM1P5H0	1-1/4”	0.50	7/16”	13.31 (29.34)	16.28 (993.5)	**NEDJ041032ND**
3	2	6	20	—	10	—	220/415	NECM1P6H0	3/4”	0.50	7/16”	14.42 (31.79)	24.05 (1467.6)	**NEDJ032006ND**
3	2	10	20	—	10	—	220/415	NECM1P6H0	1”	0.50	7/16”	14.42 (31.79)	24.05 (1467.6)	**NEDJ032010ND**
3	2	16	20	—	10	—	220/415	NECM1P6H0	1”	0.50	7/16”	14.42 (31.79)	24.05 (1467.6)	**NEDJ032016ND**

① C Curve, for all circuit breakers up to 63 A.
*② NPT thread at position BH. For BSP threads, substitute the letter **N** with the letter **B**, in the 11th position; For Metric threads, substitute for letter **M**; Example: NEDJ011006**B**.*
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Circuit Breaker, Technical Features: C Curve ①									Screws					
			Breaking Capacity (kA)											
Qty.	No of Poles	Nominal Current (A)	220V 240V	380V 415V	400V 415V	440V	Nominal Voltage (V)	Enclosure Type	Ø Thread B – H	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③
3	2	20	20	—	10	—	220/415	NECM1P6H0	1”	0.50	7/16”	14.42 (31.79)	24.05 (1467.6)	**NEDJ032020ND**
3	2	25	20	—	10	—	220/415	NECM1P6H0	1”	0.50	7/16”	14.42 (31.79)	24.05 (1467.6)	**NEDJ032025ND**
3	2	32	20	—	10	—	220/415	NECM1P6H0	1”	0.50	7/16”	14.42 (31.79)	24.05 (1467.6)	**NEDJ032032ND**
5	1	6	4.5	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	14.66 (32.32)	24.05 (1467.6)	**NEDJ051006ND**
5	1	10	4.5	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	14.66 (32.32)	24.05 (1467.6)	**NEDJ051010ND**
5	1	16	4.5	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	14.66 (32.32)	24.05 (1467.6)	**NEDJ051016ND**
5	1	20	4.5	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	14.66 (32.32)	24.05 (1467.6)	**NEDJ051020ND**
5	1	25	4.5	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	14.66 (32.32)	24.05 (1467.6)	**NEDJ051025ND**
5	1	32	4.5	—	—	—	220	NECM1P6H0	1-1/4”	0.50	7/16”	14.66 (32.32)	24.05 (1467.6)	**NEDJ051032ND**
4	2	6	20	—	10	—	220/415	NECM1P7H0	1-1/4”	0.50	7/16”	14.47 (31.90)	30.03 (1832.5)	**NEDJ042006ND**
4	2	10	20	—	10	—	220/415	NECM1P7H0	1-1/4”	0.50	7/16”	14.47 (31.90)	30.03 (1832.5)	**NEDJ042010ND**
4	2	16	20	—	10	—	220/415	NECM1P7H0	1-1/4”	0.50	7/16”	14.47 (31.90)	30.03 (1832.5)	**NEDJ042016ND**
4	2	20	20	—	10	—	220/415	NECM1P7H0	1-1/4”	0.50	7/16”	14.47 (31.90)	30.03 (1832.5)	**NEDJ042020ND**
4	2	25	20	—	10	—	220/415	NECM1P7H0	1-1/4”	0.50	7/16”	14.47 (31.90)	30.03 (1832.5)	**NEDJ042025ND**
4	2	32	20	—	10	—	220/415	NECM1P7H0	1-1/4”	0.50	7/16”	14.47 (31.90)	30.03 (1832.5)	**NEDJ042032ND**
6	1	6	4.5	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	19.02 (41.93)	30.03 (1832.5)	**NEDJ061006ND**
6	1	10	4.5	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	19.02 (41.93)	30.03 (1832.5)	**NEDJ061010ND**
6	1	16	4.5	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	19.02 (41.93)	30.03 (1832.5)	**NEDJ061016ND**
6	1	20	4.5	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	19.02 (41.93)	30.03 (1832.5)	**NEDJ061020ND**
6	1	25	4.5	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	19.02 (41.93)	30.03 (1832.5)	**NEDJ061025ND**
6	1	32	4.5	—	—	—	220	NECM1P7H0	1-1/4”	0.50	7/16”	19.02 (41.93)	30.03 (1832.5)	**NEDJ061032ND**

① C Curve, for all circuit breakers up to 63 A.
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Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NEDJ011006N-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" below.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" below.

Step 1		Step 2		Step 3
NEDJ011006N	—	01N ABEH	—	02N CGK
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

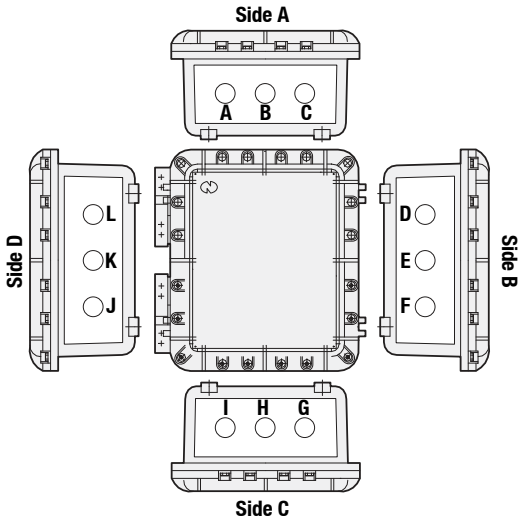
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50

Hole and Enclosure Side Locations



Thread Equivalence

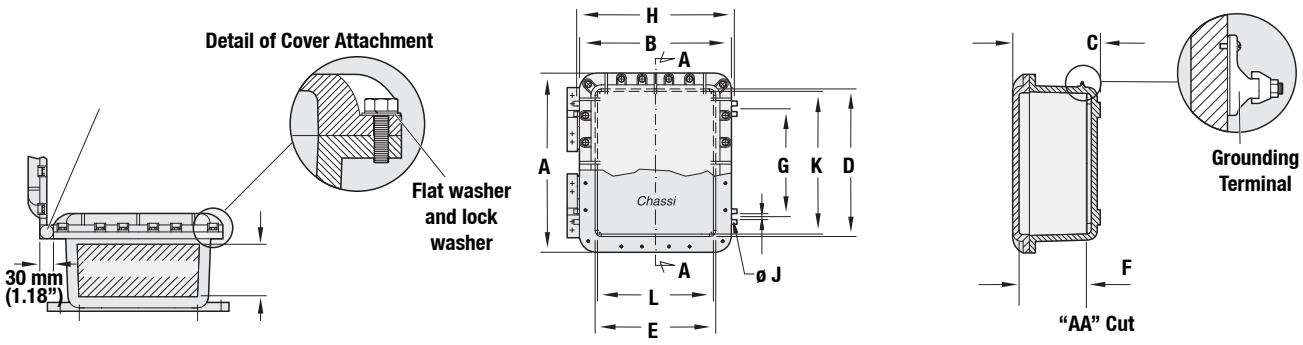
NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63

Drilling Technical Data

Enclosure	Maximum Diameter Allowed Drilling
NECM1P2H0	1/2" to 1" - M16 to M32
NECM1P3H0	1/2" to 1-1/2" - M16 to M50
NECM1P4H0	1/2" to 1-1/2" - M16 to M50
NECM1P5H0	1/2" to 1-1/2" - M16 to M50
NECM1P6H0	1/2" to 1-1/2" - M16 to M50
NECM1P7H0	1/2" to 2" - M16 to M63

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Dimensions in Millimeters (Inches)



Enclosure Type	External			Internal			Mounting Base			Chassis	
	A	B	C	D	E	F	G	H	J	K	L
NECM1P2H0	195 (7.68)	150 (5.91)	135 (5.31)	140 (5.51)	100 (3.94)	105 (4.13)	90 (3.54)	154 (6.06)	7 (0.28)	120 (4.72)	80 (3.15)
NECM1P3H0	235 (9.25)	205 (8.07)	170 (6.69)	170 (6.69)	140 (5.51)	135 (5.31)	100 (3.94)	205 (8.07)	11 (0.43)	150 (5.91)	125 (4.92)
NECM1P4H0	285 (11.22)	205 (8.07)	170 (6.69)	220 (8.66)	140 (5.51)	135 (5.31)	160 (6.30)	205 (8.07)	11 (0.43)	200 (7.87)	125 (4.92)
NECM1P5H0	340 (13.39)	205 (8.07)	170 (6.69)	275 (10.83)	140 (5.51)	135 (5.31)	200 (7.87)	205 (8.07)	11 (0.43)	255 (10.04)	125 (4.92)
NECM1P6H0	405 (15.94)	205 (8.07)	170 (6.69)	340 (13.39)	140 (5.51)	135 (5.31)	265 (10.43)	205 (8.07)	11 (0.43)	325 (12.80)	125 (4.92)
NECM1P7H0	510 (20.08)	205 (8.07)	170 (6.69)	445 (17.52)	140 (5.51)	135 (5.31)	365 (14.37)	205 (8.07)	11 (0.43)	430 (16.93)	125 (4.92)

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Nutsteel® NEIN Switch

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Applications

- Used in areas where there is risk of explosion.
- Ideal for use in industries such as:
  - — Chemical processing facilities
  - — Petrochemical processing facilities
  - — Paint and varnish manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint spray booths,
  - — Flammable product storage facilities

Features

- 1-pole or 2-pole switch 250 V, 10 thru 30 Amperes.
- External identification: On- Off.
- External grounding connector for 6 mm^2 (0.0093 in^2) cables.
- When using only one threaded entry, the other one must be sealed with a plug.
- Exd: Flameproof method of protection suitable for Zone 1 and 2.
- Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.
- To assure the appropriate level of safety, preventing the propagation of the explosion through the gap, we recommend fixing the cover with all of the screws and following the torque specified.

Standard Materials

- Enclosure body and cover: copperfree diecast aluminum alloy
- Screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

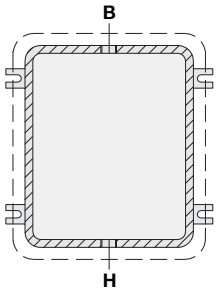
- Holes different from those specified may be provided, depending on the size of the box and the diameter of the cable entries. Contact your local sales representative.

NBR IEC Brazilian Certifications and Compliances

- Temperature Class: T6
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)
- Certificate of Compliance: TÜV 12.0430X



Threaded Entries



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Nutsteel® NEIN Switch

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Switch, Technical Features						Screws					
Qty.	No of Poles	Nominal Current (A)	Nominal Voltage (V)	Symbol	Enclosure Type	Ø Thread B – H	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
1	1	10	250		NECM1P2H0	3/4”	0.50	7/16”	3.25 (7.17)	4.90 (299.0)	**NEIN011010N**
1	2	10	250		NECM1P2H0	3/4”	0.50	7/16”	3.25 (7.17)	4.90 (299.0)	**NEIN012010N**
1	2	20	250		NECM1P2H0	3/4”	0.50	7/16”	3.28 (7.23)	4.90 (299.0)	**NEIN012020N**
1	2	30	250		NECM1P2H0	3/4”	0.50	7/16”	3.28 (7.23)	4.90 (299.0)	**NEIN012030N**
1	3	10	250		NECM1P2H0	3/4”	0.50	7/16”	3.30 (7.28)	4.90 (299.0)	**NEIN013010N**
1	3	20	250		NECM1P2H0	3/4”	0.50	7/16”	3.30 (7.28)	4.90 (299.0)	**NEIN013020N**
1	3	30	250		NECM1P2H0	3/4”	0.50	7.16”	3.30 (7.28)	4.90 (299.0)	**NEIN013030N**
2	1	10	250		NECM1P2H0	3/4”	0.50	7/16”	3.30 (7.28)	4.90 (299.0)	**NEIN021010N**
2	2	10	250		NECM1P2H0	3/4”	0.50	7/16”	3.30 (7.28)	4.90 (299.0)	**NEIN022010N**
2	2	20	250		NECM1P3H0	3/4”	0.50	7/16”	5.51 (12.15)	9.73 (593.8)	**NEIN022020N**
2	2	30	250		NECM1P3H0	3/4”	0.50	7/16”	5.55 (12.24)	9.73 (593.8)	**NEIN022030N**
2	3	10	250		NECM1P3H0	1”	0.50	7/16”	5.70 (12.57)	9.73 (593.8)	**NEIN023010N**
2	3	20	250		NECM1P3H0	1”	0.50	7/16”	5.70 (12.57)	9.73 (593.8)	**NEIN023020N**
2	3	30	250		NECM1P3H0	1”	0.50	7/16”	5.70 (12.57)	9.73 (593.8)	**NEIN023030N**
3	1	10	250		NECM1P4H0	3/4”	0.50	7/16”	6.58 (14.51)	11.78 (718.9)	**NEIN031010N**
3	2	10	250		NECM1P4H0	1”	0.50	7/16”	6.63 (14.62)	11.78 (718.9)	**NEIN032010N**
3	2	20	250		NECM1P4H0	1”	0.50	7/16”	6.65 (14.66)	11.78 (718.9)	**NEIN032020N**
3	2	30	250		NECM1P4H0	1”	0.50	7/16”	6.75 (14.88)	11.78 (718.9)	**NEIN032030N**
3	3	10	250		NECM1P4H0	1”	0.50	7/16”	6.80 (15.00)	11.78 (718.9)	**NEIN033010N**
3	3	20	250		NECM1P4H0	1”	0.50	7/16”	6.80 (15.00)	11.78 (718.9)	**NEIN033020N**
3	3	30	250		NECM1P4H0	1-1/4”	0.50	7/16”	6.80 (15.00)	11.78 (718.9)	**NEIN033030N**

*① NPT thread at position BH. For BSP threads, substitute the letter **N** with the letter **B** in the 11th position; For Metric threads, substitute the letter **N** with the letter **M** in the 11th position. Example: NEIN011010**B**.*

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Nutsteel® NEIN Switch

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Switch, Technical Features						Screws					
Qty.	No of Poles	Nominal Current (A)	Nominal Voltage (V)	Symbol	Enclosure Type	Ø Thread B – H	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
4	1	10	250		NECM1P5H0	1”	0.50	7/16”	8.13 (17.92)	14.16 (864.1)	**NEIN041010N**
4	2	10	250		NECM1P5H0	1-1/4”	0.50	7/16”	8.23 (18.14)	14.16 (864.1)	**NEIN042010N**
4	2	20	250		NECM1P5H0	1-1/4”	0.50	7/16”	8.23 (18.14)	14.16 (864.1)	**NEIN042020N**
4	2	30	250		NECM1P5H0	1-1/4”	0.50	7/16”	8.33 (18.36)	14.16 (864.1)	**NEIN042030N**
4	3	10	250		NECM1P5H0	1-1/4”	0.50	7/16”	8.30 (18.30)	14.16 (864.1)	**NEIN043010N**
4	3	20	250		NECM1P5H0	1-1/4”	0.50	7/16”	8.30 (18.30)	14.16 (864.1)	**NEIN043020N**
4	3	30	250		NECM1P5H0	2”	0.50	7/16”	8.30 (18.30)	14.16 (864.1)	**NEIN043030N**
5	1	10	250		NECM1P6H0	1-1/4”	0.50	7/16”	9.54 (21.03)	16.85 (1028.3)	**NEIN051010N**
5	2	10	250		NECM1P6H0	1-1/2”	0.50	7/16”	9.66 (21.30)	16.85 (1028.3)	**NEIN052010N**
5	2	20	250		NECM1P6H0	1-1/2”	0.50	7/16”	9.66 (21.30)	16.85 (1028.3)	**NEIN052020N**
5	2	30	250		NECM1P6H0	2”	0.50	7/16”	9.80 (21.61)	16.85 (1028.3)	**NEIN052030N**
5	3	10	250		NECM1P6H0	1-1/2”	0.50	7/16”	9.80 (21.61)	16.85 (1028.3)	**NEIN053010N**
5	3	20	250		NECM1P6H0	1-1/2”	0.50	7/16”	9.80 (21.61)	16.85 (1028.3)	**NEIN053020N**
5	3	30	250		NECM1P6H0	2”	0.50	7/16”	9.80 (21.61)	16.85 (1028.3)	**NEIN053030N**
6	1	10	250		NECM1P6H0	1-1/4”	0.50	7/16”	9.70 (21.38)	16.85 (1028.3)	**NEIN061010N**
6	2	10	250		NECM1P6H0	1-1/2”	0.50	7/16”	9.70 (21.38)	16.85 (1028.3)	**NEIN062010N**
6	2	20	250		NECM1P6H0	1-1/2”	0.50	7/16”	9.70 (21.38)	16.85 (1028.3)	**NEIN062020N**
6	2	30	250		NECM1P6H0	2”	0.50	7/16”	9.85 (21.72)	16.85 (1028.3)	**NEIN062030N**
6	3	10	250		NECM1P6H0	1-1/2”	0.50	7/16”	9.80 (21.61)	16.85 (1028.3)	**NEIN063010N**
6	3	20	250		NECM1P6H0	1-1/2”	0.50	7/16”	9.80 (21.61)	16.85 (1028.3)	**NEIN063020N**

*① NPT thread at position BH. For BSP threads, substitute the letter **N** with the letter **B** in the 11th position; For Metric threads, substitute the letter **N** with the letter **M** in the 11th position. Example: NEIN011010**B**.*

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Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NEIN011010N-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" below.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" below.

Step 1		Step 2		Step 3
NEIN011010N	—	01N ABEH	—	02N CGK
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

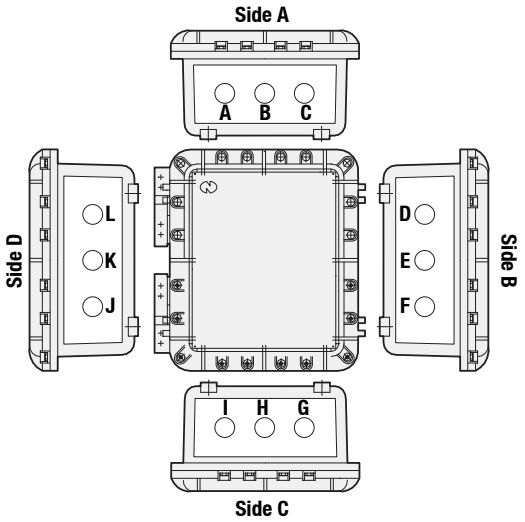
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50

Hole and Enclosure Side Locations



Thread Equivalence

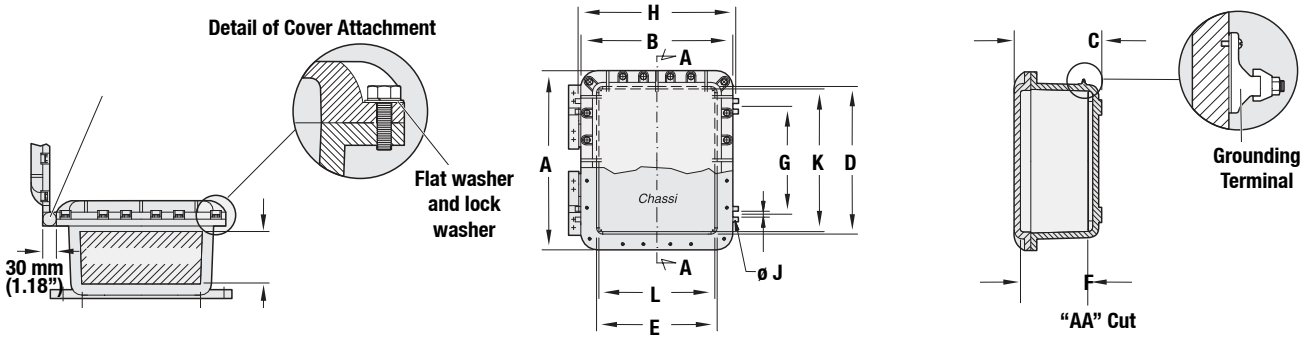
NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63

Drilling Technical Data

Enclosure	Maximum Diameter Allowed Drilling
NECM1P2H0	1/2" to 1" - M16 to M32
NECM1P3H0	1/2" to 1-1/2" - M16 to M50
NECM1P4H0	1/2" to 1-1/2" - M16 to M50
NECM1P5H0	1/2" to 1-1/2" - M16 to M50
NECM1P6H0	1/2" to 1-1/2" - M16 to M50
NECM1P7H0	1/2" to 2" - M16 to M63

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Dimensions in Millimeters (Inches)



Enclosure Type	External			Internal			Mounting Base			Chassis	
	A	B	C	D	E	F	G	H	J	K	L
NECM1P2H0	195 (7.68)	150 (5.91)	135 (5.31)	140 (5.51)	100 (3.94)	105 (4.13)	90 (3.54)	154 (6.06)	7 (0.28)	120 (4.72)	80 (3.15)
NECM1P3H0	235 (9.25)	205 (8.07)	170 (6.69)	170 (6.69)	140 (5.51)	135 (5.31)	100 (3.94)	205 (8.07)	11 (0.43)	150 (5.91)	125 (4.92)
NECM1P4H0	285 (11.22)	205 (8.07)	170 (6.69)	220 (8.66)	140 (5.51)	135 (5.31)	160 (6.30)	205 (8.07)	11 (0.43)	200 (7.87)	125 (4.92)
NECM1P5H0	340 (13.39)	205 (8.07)	170 (6.69)	275 (10.83)	140 (5.51)	135 (5.31)	200 (7.87)	205 (8.07)	11 (0.43)	255 (10.04)	125 (4.92)
NECM1P6H0	405 (15.94)	205 (8.07)	170 (6.69)	340 (13.39)	140 (5.51)	135 (5.31)	265 (10.43)	205 (8.07)	11 (0.43)	325 (12.80)	125 (4.92)
NECM1P7H0	510 (20.08)	205 (8.07)	170 (6.69)	445 (17.52)	140 (5.51)	135 (5.31)	365 (14.37)	205 (8.07)	11 (0.43)	430 (16.93)	125 (4.92)

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Nutsteel® NTDJ Circuit Breaker

NBR IEC:
IP65

Applications

- Suitable for environments containing moisture, non-flammable gases and vapors.
- Ideal installation include:
  - — Machine room
  - — Pit cleaning
  - — Plating
  - — Refrigeration facilities
  - — Docks

Features

- Circuit breakers with optional GFI device. Uses an automatic breaker switch that disconnects low-intensity electric currents (on the order of hundredths of ampere) that a common circuit breaker cannot detect, but can be fatal if they traverse the human body.
- Circuit breakers available starting at 1 ampere.
- Thermo-magnetic circuit breaker, ABNT NBR IEC 60947-2 standard, 1-pole, 2-pole and 3-pole, suitable for control and protection of electrical circuits against overloads and short circuits.
- Supplied with chassis for mounting the components.
- Weatherproof equipment are not mandatory a blanking plug use.
- Circuit breakers have terminals for electrical connections; 25 mm^2 (0.0388 in^2) cables for circuit breakers up to 25 A; and 35 mm^2 (0.0543 in^2) cables for circuit breakers from 35 A to 63 A.
- When using only one entry, the other one must be sealed with a plug.

Standard Materials

- Enclosure body and cover: copperfree diecast aluminum alloy
- Screws and washers: AISI 304 stainless steel
- Chassis: electroplated steel



Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- Holes different from those specified may be provided, depending on the size of the box and the diameter of the cable entries. Contact your local sales representative.

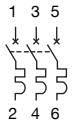
NBR IEC Brazilian Certifications and Compliances

- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- Plugs are available to order separately. See *Fittings* Section.

Threaded Entries

Circuit Breaker			
1-Pole	2-Pole	3-Pole	
			

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NBR IEC:
IP65

Circuit Breaker, Technical Features: C Curve ①②												
			Breaking Capacity (kA)									
Qty.	No of Poles	Nominal Current (A)	220V 240V	380V 415V	400V 415V	440V	Nominal Voltage (V)	Enclosure Type	Ø Thread B H	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ③④
1	1	6	10	—	—	—	220	NTCM1P2H0	3/4”	3.01 (6.64)	3.22 (196.5)	**NTDJ011006N**
1	1	10	10	—	—	—	220	NTCM1P2H0	3/4”	3.01 (6.64)	3.22 (196.5)	**NTDJ011010N**
1	1	16	10	—	—	—	220	NTCM1P2H0	3/4”	3.01 (6.64)	3.22 (196.5)	**NTDJ011016N**
1	1	20	10	—	—	—	220	NTCM1P2H0	3/4”	3.01 (6.64)	3.22 (196.5)	**NTDJ011020N**
1	1	25	10	—	—	—	220	NTCM1P2H0	3/4”	3.01 (6.64)	3.22 (196.5)	**NTDJ011025N**
1	1	32	10	—	—	—	220	NTCM1P3H0	3/4”	3.94 (8.69)	5.78 (352.7)	**NTDJ011032N**
1	2	6	20	—	10	6	440	NTCM1P2H0	3/4”	3.11 (6.86)	3.22 (196.5)	**NTDJ012006N**
1	2	10	20	—	10	6	440	NTCM1P2H0	3/4”	3.11 (6.86)	3.22 (196.5)	**NTDJ012010N**
1	2	16	20	—	10	6	440	NTCM1P2H0	3/4”	3.11 (6.86)	3.22 (196.5)	**NTDJ012016N**
1	2	20	20	—	10	6	440	NTCM1P2H0	3/4”	3.11 (6.86)	3.22 (196.5)	**NTDJ012020N**
1	2	25	20	—	10	6	440	NTCM1P2H0	3/4”	3.11 (6.86)	3.22 (196.5)	**NTDJ012025N**
1	2	32	20	—	10	6	440	NTCM1P3H0	3/4”	4.04 (8.91)	5.78 (352.7)	**NTDJ012032N**
1	3	6	20	—	10	6	440	NTCM1P5H0	3/4”	5.45 (12.02)	8.53 (520.5)	**NTDJ013006N**
1	3	10	20	—	10	6	440	NTCM1P5H0	3/4”	5.45 (12.02)	8.53 (520.5)	**NTDJ013010N**
1	3	16	20	—	10	6	440	NTCM1P5H0	3/4”	5.45 (12.02)	8.53 (520.5)	**NTDJ013016N**
1	3	20	20	—	10	6	440	NTCM1P5H0	3/4”	5.45 (12.02)	8.53 (520.5)	**NTDJ013020N**
1	3	25	20	—	10	6	440	NTCM1P5H0	3/4”	5.45 (12.02)	8.53 (520.5)	**NTDJ013025N**
1	3	32	20	—	10	6	440	NTCM1P5H0	3/4”	5.45 (12.02)	8.53 (520.5)	**NTDJ013032N**
1	3	40	20	—	10	6	440	NTCM1P5H0	1”	5.45 (12.02)	8.53 (520.5)	**NTDJ013040N**
1	3	50	20	—	10	6	440	NTCM1P5H0	1”	5.45 (12.02)	8.53 (520.5)	**NTDJ013050N**
1	3	63	20	—	10	6	440	NTCM1P5H0	1-1/2”	5.45 (12.02)	8.53 (520.5)	**NTDJ013063N**
1	3	70	25	18	—	14	440	NTCM1P5H0	1-1/2”	5.45 (12.02)	8.53 (520.5)	**NTDJ013070N**
1	3	80	25	18	—	14	440	NTCM1P5H0	1-1/2”	5.45 (12.02)	8.53 (520.5)	**NTDJ013080N**
1	3	100	25	18	—	14	440	NTCM1P5H0	1-1/2”	5.45 (12.02)	8.53 (520.5)	**NTDJ013100N**
1	3	125	25	18	—	14	440	NTCM1P5H0	1-1/2”	5.45 (12.02)	8.53 (520.5)	**NTDJ013125N**
2	1	6	10	—	—	—	220	NTCM1P3H0	3/4”	5.18 (11.42)	5.78 (352.7)	**NTDJ021006N**
2	1	10	10	—	—	—	220	NTCM1P3H0	3/4”	5.18 (11.42)	5.78 (352.7)	**NTDJ021010N**
2	1	16	10	—	—	—	220	NTCM1P3H0	3/4”	5.18 (11.42)	5.78 (352.7)	**NTDJ021016N**
2	1	20	10	—	—	—	220	NTCM1P3H0	3/4”	5.18 (11.42)	5.78 (352.7)	**NTDJ021020N**
2	1	25	10	—	—	—	220	NTCM1P3H0	3/4”	5.18 (11.42)	5.78 (352.7)	**NTDJ021025N**
2	1	32	10	—	—	—	220	NTCM1P4H0	3/4”	5.33 (11.75)	6.95 (424.1)	**NTDJ021032N**
2	2	6	20	—	10	6	440	NTCM1P4H0	3/4”	5.53 (12.19)	6.95 (424.1)	**NTDJ022006N**
2	2	10	20	—	10	6	440	NTCM1P4H0	3/4”	5.53 (12.19)	6.95 (424.1)	**NTDJ022010N**
2	2	16	20	—	10	6	440	NTCM1P4H0	3/4”	5.53 (12.19)	6.95 (424.1)	**NTDJ022016N**
2	2	20	20	—	10	6	440	NTCM1P4H0	3/4”	5.53 (12.19)	6.95 (424.1)	**NTDJ022020N**
2	2	25	20	—	10	6	440	NTCM1P4H0	3/4”	5.53 (12.19)	6.95 (424.1)	**NTDJ022025N**
2	2	32	20	—	10	6	440	NTCM1P4H0	3/4”	5.53 (12.19)	6.95 (424.1)	**NTDJ022032N**
3	1	6	10	—	—	—	220	NTCM1P4H0	3/4”	6.57 (14.48)	6.95 (424.1)	**NTDJ031006N**
3	1	10	10	—	—	—	220	NTCM1P4H0	3/4”	6.57 (14.48)	6.95 (424.1)	**NTDJ031010N**
3	1	16	10	—	—	—	220	NTCM1P4H0	3/4”	6.57 (14.48)	6.95 (424.1)	**NTDJ031016N**
3	1	20	10	—	—	—	220	NTCM1P4H0	3/4”	6.57 (14.48)	6.95 (424.1)	**NTDJ031020N**
3	1	25	10	—	—	—	220	NTCM1P4H0	3/4”	6.57 (14.48)	6.95 (424.1)	**NTDJ031025N**
3	1	32	10	—	—	—	220	NTCM1P4H0	1”	6.56 (14.46)	6.95 (424.1)	**NTDJ031032N**

① All circuit breakers with optional GFI device.
② C Curve, for all circuit breakers up to 63 A.
*③ NPT thread at position BH. For BSP threads, substitute the letter **N** with the letter **B**, in the 11th position; For Metric threads, substitute for letter **M**; Example: NTDJ011006**B**.*
④ All breakers can be supplied with the following amperage: 1 A, 2 A, 3 A and 4 A. Sample code for two amperage breaker: NTDJ011002N .

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NBR IEC:
IP65

Circuit Breaker, Technical Features: C Curve ①②												
			Breaking Capacity (kA)									
Qty.	No of Poles	Nominal Current (A)	220V 240V	380V 415V	400V 415V	440V	Nominal Voltage (V)	Enclosure Type	Ø Thread B H	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ③④
3	2	6	20	—	10	6	440	NTCM1P5H0	1”	7.70 (16.98)	8.46 (516.3)	**NTDJ032006N**
3	2	10	20	—	10	6	440	NTCM1P5H0	1”	7.70 (16.98)	8.46 (516.3)	**NTDJ032010N**
3	2	16	20	—	10	6	440	NTCM1P5H0	1”	7.70 (16.98)	8.46 (516.3)	**NTDJ032016N**
3	2	20	20	—	10	6	440	NTCM1P5H0	1”	7.70 (16.98)	8.46 (516.3)	**NTDJ032020N**
3	2	25	20	—	10	6	440	NTCM1P5H0	1”	7.70 (16.98)	8.46 (516.3)	**NTDJ032025N**
3	2	32	20	—	10	6	440	NTCM1P5H0	1”	7.70 (16.98)	8.46 (516.3)	**NTDJ032032N**
4	1	6	10	—	—	—	220	NTCM1P5H0	1”	8.64 (19.05)	8.46 (516.3)	**NTDJ041006N**
4	1	10	10	—	—	—	220	NTCM1P5H0	1”	8.64 (19.05)	8.46 (516.3)	**NTDJ041010N**
4	1	16	10	—	—	—	220	NTCM1P5H0	1”	8.64 (19.05)	8.46 (516.3)	**NTDJ041016N**
4	1	20	10	—	—	—	220	NTCM1P5H0	1”	8.64 (19.05)	8.46 (516.3)	**NTDJ041020N**
4	1	25	10	—	—	—	220	NTCM1P5H0	1”	8.64 (19.05)	8.46 (516.3)	**NTDJ041025N**
4	1	32	10	—	—	—	220	NTCM1P5H0	1-1/4”	8.63 (19.03)	8.46 (516.3)	**NTDJ041032N**
4	2	6	20	—	10	6	440	NTCM1P6H0	1-1/4”	9.76 (21.52)	10.33 (630.4)	**NTDJ042006N**
4	2	10	20	—	10	6	440	NTCM1P6H0	1-1/4”	9.76 (21.52)	10.33 (630.4)	**NTDJ042010N**
4	2	16	20	—	10	6	440	NTCM1P6H0	1-1/4”	9.76 (21.52)	10.33 (630.4)	**NTDJ042016N**
4	2	20	20	—	10	6	440	NTCM1P6H0	1-1/4”	9.76 (21.52)	10.33 (630.4)	**NTDJ042020N**
4	2	25	20	—	10	6	440	NTCM1P6H0	1-1/4”	9.76 (21.52)	10.33 (630.4)	**NTDJ042025N**
4	2	32	20	—	10	6	440	NTCM1P6H0	1-1/4”	9.76 (21.52)	10.33 (630.4)	**NTDJ042032N**
5	1	6	10	—	—	—	220	NTCM1P6H0	1-1/4”	9.82 (21.65)	10.33 (630.4)	**NTDJ051006N**
5	1	10	10	—	—	—	220	NTCM1P6H0	1-1/4”	9.82 (21.65)	10.33 (630.4)	**NTDJ051010N**
5	1	16	10	—	—	—	220	NTCM1P6H0	1-1/4”	9.82 (21.65)	10.33 (630.4)	**NTDJ051016N**
5	1	20	10	—	—	—	220	NTCM1P6H0	1-1/4”	9.82 (21.65)	10.33 (630.4)	**NTDJ051020N**
5	1	25	10	—	—	—	220	NTCM1P6H0	1-1/4”	9.82 (21.65)	10.33 (630.4)	**NTDJ051025N**
5	1	32	10	—	—	—	220	NTCM1P6H0	1-1/4”	9.82 (21.65)	10.33 (630.4)	**NTDJ051032N**
5	2	6	20	—	10	6	440	NTCM1P7H0	1-1/2”	12.17 (26.83)	14.52 (886.1)	**NTDJ052006N**
5	2	10	20	—	10	6	440	NTCM1P7H0	1-1/2”	12.17 (26.83)	14.52 (886.1)	**NTDJ052010N**
5	2	16	20	—	10	6	440	NTCM1P7H0	1-1/2”	12.17 (26.83)	14.52 (886.1)	**NTDJ052016N**
5	2	20	20	—	10	6	440	NTCM1P7H0	1-1/2”	12.17 (26.83)	14.52 (886.1)	**NTDJ052020N**
5	2	25	20	—	10	6	440	NTCM1P7H0	1-1/2”	12.17 (26.83)	14.52 (886.1)	**NTDJ052025N**
5	2	32	20	—	10	6	440	NTCM1P7H0	2”	12.10 (26.68)	14.52 (886.1)	**NTDJ052032N**
6	1	6	10	—	—	—	220	NTCM1P7H0	1-1/4”	12.87 (28.37)	14.52 (886.1)	**NTDJ061006N**
6	1	10	10	—	—	—	220	NTCM1P7H0	1-1/4”	12.87 (28.37)	14.52 (886.1)	**NTDJ061010N**
6	1	16	10	—	—	—	220	NTCM1P7H0	1-1/4”	12.87 (28.37)	14.52 (886.1)	**NTDJ061016N**
6	1	20	10	—	—	—	220	NTCM1P7H0	1-1/4”	12.87 (28.37)	14.52 (886.1)	**NTDJ061020N**
6	1	25	10	—	—	—	220	NTCM1P7H0	1-1/2”	12.17 (26.83)	14.52 (886.1)	**NTDJ061025N**
6	1	32	10	—	—	—	220	NTCM1P7H0	1-1/4”	12.87 (28.37)	14.52 (886.1)	**NTDJ061032N**
6	2	6	20	—	10	6	440	NTCM1P7H0	1-1/2”	13.46 (29.67)	14.52 (886.1)	**NTDJ062006N**
6	2	10	20	—	10	6	440	NTCM1P7H0	1-1/2”	13.46 (29.67)	14.52 (886.1)	**NTDJ062010N**
6	2	16	20	—	10	6	440	NTCM1P7H0	1-1/2”	13.46 (29.67)	14.52 (886.1)	**NTDJ062016N**
6	2	20	20	—	10	6	440	NTCM1P7H0	1-1/2”	13.46 (29.67)	14.52 (886.1)	**NTDJ062020N**
6	2	25	20	—	10	6	440	NTCM1P7H0	1-1/2”	13.46 (29.67)	14.52 (886.1)	**NTDJ062025N**
6	2	32	20	—	10	6	440	NTCM1P7H0	2”	13.44 (29.63)	14.52 (886.1)	**NTDJ062032N**

① All circuit breakers with optional GFI device.
② C Curve, for all circuit breakers up to 63 A.
*③ NPT thread at position BH. For BSP threads, substitute the letter **N** with the letter **B**, in the 11th position; For Metric threads, substitute for letter **M**; Example: NTDJ011006**B**.*
④ All breakers can be supplied with the following amperage: 1 A, 2 A, 3 A and 4 A. Sample code for two amperage breaker: NTDJ011002N .

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Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NTDJ011006N-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" below.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" below.

Step 1		Step 2		Step 3
NTDJ011006N	—	01N ABEH	—	02N CGK
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

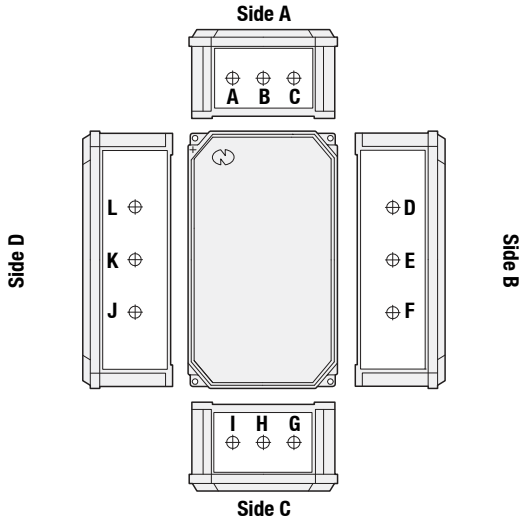
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50

Hole and Enclosure Side Locations



Thread Equivalence

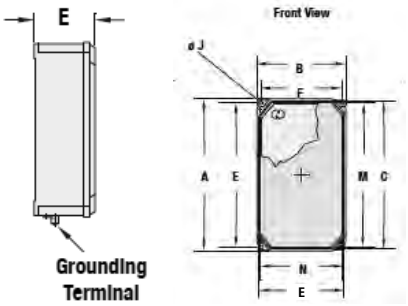
NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50
2"	M63

Drilling Technical Data

Enclosure	Maximum Diameter Allowed Drilling
NTCM1P2H0	1/2" to 1" - M16 to M32
NTCM1P3H0	1/2" to 1-1/2" - M16 to M50
NTCM1P4H0	1/2" to 1-1/2" - M16 to M50
NTCM1P5H0	1/2" to 1-1/2" - M16 to M50
NTCM1P6H0	1/2" to 1-1/2" - M16 to M50
NTCM1P7H0	1/2" to 2" - M16 to M63

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Dimensions in Millimeters (Inches)



Enclosure Type	External (for Flat Cover) A	B	C	Internal D	E	Mounting Base F	G	Ø J	Chassis M	N
NTCM1P2H0	162 (6.38)	120 (4.72)	110 (4.33)	140 (5.51)	100 (3.94)	140 (5.51)	100 (3.94)	11 (0.43)	130 (5.12)	90 (3.54)
NTCM1P3H0	190 (7.48)	160 (6.30)	125 (4.92)	170 (6.69)	140 (5.51)	165 (6.50)	130 (5.12)	11 (0.43)	150 (5.91)	130 (5.12)
NTCM1P4H0	235 (9.25)	155 (6.10)	130 (5.12)	215 (8.46)	140 (5.51)	210 (8.27)	130 (5.12)	11 (0.43)	200 (7.87)	130 (5.12)
NTCM1P5H0	290 (11.42)	155 (6.10)	130 (5.12)	270 (10.63)	140 (5.51)	265 (0.43)	130 (5.12)	11 (0.43)	240 (9.45)	130 (5.12)
NTCM1P6H0	345 (13.58)	155 (6.10)	130 (5.12)	330 (12.99)	140 (5.51)	325 (12.80)	130 (5.12)	11 (0.43)	320 (12.60)	130 (5.12)
NTCM1P7H0	465 (18.31)	165 (6.50)	130 (5.12)	445 (17.52)	140 (5.51)	430 (16.93)	130 (5.12)	11 (0.43)	435 (17.13)	130 (5.12)

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Nutsteel® NEPAC Distribution, Power and Protection Panelboard

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Applications

- Explosionproof panel for powering, distribution and protection of electrical circuits.
- Used in areas where there is risk of explosion. In industries such as:
  - — Petroleum refineries
  - — Chemical refineries
  - — Paints and varnishes manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing
  - — Dairy
  - — Brewing
  - — Flammable product storage facilities
  - — Other industrial process facilities

Features

- Panel comes fully assembled with circuit breakers, copper bar up to 150 Amp interconnected to the internal wiring.
- 2-pole or 3-pole circuit breaker up to 125 A, breaking capacity: 20 kA at 220/240 V, 10 kA at 400/415 V, 6 kA at 440 V.
- 1-pole or 2-pole circuit breakers from 6 to 32 A, breaking capacity: 10 kA at 220/240 V (1-pole), 20 kA at 220/240 V (2-pole), 10 kA at 400/415 V (2-pole), 6 kA at 440 Vac (2-pole).
- Comes with external grounding terminal for 25mm² (0.0388 in²) cable
- Exd: Flameproof method of protection suitable for Zone 1 and 2.
- Entry and exit of electrical conductors must be with conduit, or explosionproof cable glands.
- To assure the appropriate level of safety, preventing the propagation of the explosion through the gap, we recommend fixing the cover with all of the screws and following the torque specified.

Standard Materials

- Body and cover: copperfree diecast aluminum alloy
- Screws and flat washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure



Options

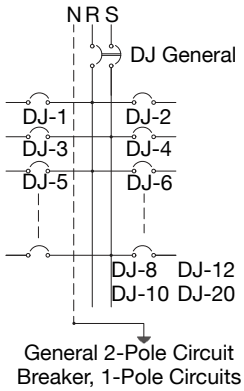
- Holes different from those specified may be provided, depending on the size of the box and the diameter of the cable entries. Contact your local sales representative.
- Available with GFI (Residual Device, DR) for protection, upon request.

NBR IEC Brazilian Certifications and Compliances

- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)
- Certificate of Compliance: TUV 12.0428
- Temperature Class: T6

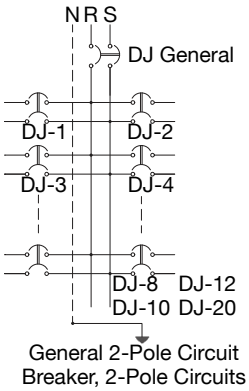
System Wiring Diagram

NEPAC21



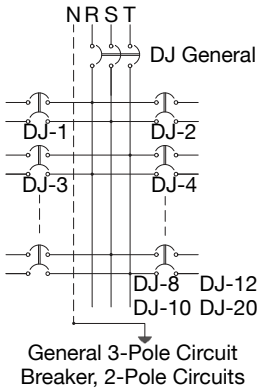
General 2-Pole Circuit Breaker, 1-Pole Circuits

NEPAC22



General 2-Pole Circuit Breaker, 2-Pole Circuits

NEPAC32



General 3-Pole Circuit Breaker, 2-Pole Circuits

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Circuit Breakers – C Curve ①														
General		Circuit		Dimensions mm (in)					Screws					
2–Pole (A)	Current (A)	No. of Poles	No. of Circuit	A	B	C	D	E	Enclosure Type	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③
125	6	1	8	550 (21.65)	480 (18.90)	285 (11.22)	450 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	50 (110.23)	80 (4881.9)	**NEPAC2101N**
125	6	1	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	54 (119.05)	100 (6102.4)	**NEPAC2102N**
125	6	1	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	67 (147.71)	125 (7628.0)	**NEPAC2103N**
125	6	1	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	120 (264.55)	218 (13303.2)	**NEPAC2104N**
125	10	1	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	50 (110.23)	80 (4881.9)	**NEPAC2111N**
125	10	1	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	54 (119.05)	100 (6102.4)	**NEPAC2112N**
125	10	1	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	67 (147.71)	125 (7628.0)	**NEPAC2113N**
125	10	1	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	120 (264.55)	218 (13303.2)	**NEPAC2114N**
125	16	1	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	50 (110.23)	80 (4881.9)	**NEPAC2121N**
125	16	1	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	54 (119.05)	100 (6102.4)	**NEPAC2122N**
125	16	1	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	67 (147.71)	125 (7628.0)	**NEPAC2123N**
125	16	1	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	120 (264.55)	218 (13303.2)	**NEPAC2124N**
125	20	1	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	50 (110.23)	80 (4881.9)	**NEPAC2131N**
125	20	1	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	54 (119.05)	100 (6102.4)	**NEPAC2132N**
125	20	1	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	67 (147.71)	125 (7628.0)	**NEPAC2133N**
125	20	1	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	120 (264.55)	218 (13303.2)	**NEPAC2134N**
125	25	1	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	50 (110.23)	80 (4881.9)	**NEPAC2141N**
125	25	1	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	54 (119.05)	100 (6102.4)	**NEPAC2142N**
125	25	1	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	67 (147.71)	125 (7628.0)	**NEPAC2143N**
125	25	1	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	120 (264.55)	218 (13303.2)	**NEPAC2144N**
125	32	1	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	50 (110.23)	80 (4881.9)	**NEPAC2151N**
125	32	1	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	54 (119.05)	100 (6102.4)	**NEPAC2152N**
125	32	1	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	67 (147.71)	125 (7628.0)	**NEPAC2153N**
125	32	1	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	120 (264.55)	218 (13303.2)	**NEPAC2154N**

① *C Curve, for circuit breakers up to 32 Amp.*
② *General circuit breaker with other currents, upon request.*
③ *Standard thread: NPT. For BSP threads, replace the letter **N** with the letter **B** in the 10th position; For Metric threads, substitute for letter **M**; example: NEPAC2101**B**.*

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Nutsteel® NEPAC Distribution, Power and Protection Panelboard

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Circuit Breakers – C Curve ①														
General		Circuit		Dimensions mm (in)						Screws				
2–Pole (A)	Current (A)	No. of Poles	No. of Circuit	A	B	C	D	E	Enclosure Type	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ②③
125	6	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	51 (112.44)	80 (4881.9)	**NEPAC2201N**
125	6	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	56 (123.46)	100 (6102.4)	**NEPAC2202N**
125	6	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	69 (152.12)	125 (7628.0)	**NEPAC2203N**
125	6	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	130 (286.60)	218 (13303.2)	**NEPAC2204N**
125	10	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	51 (112.44)	80 (4881.9)	**NEPAC2211N**
125	10	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	56 (123.46)	100 (6102.4)	**NEPAC2212N**
125	10	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	69 (152.12)	125 (7628.0)	**NEPAC2213N**
125	10	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	130 (286.60)	218 (13303.2)	**NEPAC2214N**
125	16	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	51 (112.44)	80 (4881.9)	**NEPAC2221N**
125	16	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	56 (123.46)	100 (6102.4)	**NEPAC2222N**
125	16	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	69 (152.12)	125 (7628.0)	**NEPAC2223N**
125	16	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	130 (286.60)	218 (13303.2)	**NEPAC2224N**
125	20	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	51 (112.44)	80 (4881.9)	**NEPAC2231N**
125	20	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	56 (123.46)	100 (6102.4)	**NEPAC2232N**
125	20	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	69 (152.12)	125 (7628.0)	**NEPAC2233N**
125	20	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	130 (286.60)	218 (13303.2)	**NEPAC2234N**
125	25	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	51 (112.44)	80 (4881.9)	**NEPAC2241N**
125	25	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	56 (123.46)	100 (6102.4)	**NEPAC2242N**
125	25	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	69 (152.12)	125 (7628.0)	**NEPAC2243N**
125	25	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	130 (286.60)	218 (13303.2)	**NEPAC2244N**
125	32	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	51 (112.44)	80 (4881.9)	**NEPAC2251N**
125	32	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	56 (123.46)	100 (6102.4)	**NEPAC2252N**
125	32	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	69 (152.12)	125 (7628.0)	**NEPAC2253N**
125	32	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	130 (286.60)	218 (13303.2)	**NEPAC2254N**

① C Curve, for circuit breakers up to 32 Amp.
② General circuit breaker with other currents, upon request.
*③ Standard thread: NPT. For BSP threads, replace the letter **N** with the letter **B** in the 10th position; For Metric threads, substitute for letter **M**; example: NEPAC2101**B**.*

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Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65

Circuit Breakers – C Curve ①														
General		Circuit		Dimensions mm (in)						Screws				
3–Pole (A)	Current (A)	No. of Poles	No. of Circuit	A	B	C	D	E	Enclosure Type	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②
125	6	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	52 (114.64)	80 (4881.9)	**NEPAC3201N**
125	6	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	57 (125.66)	100 (6102.4)	**NEPAC3202N**
125	6	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	71 (156.53)	125 (7628.0)	**NEPAC3203N**
125	6	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	131 (288.81)	218 (13303.2)	**NEPAC3204N**
125	10	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	52 (114.64)	80 (4881.9)	**NEPAC3211N**
125	10	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	57 (125.66)	100 (6102.4)	**NEPAC3212N**
125	10	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	71 (156.53)	125 (7628.0)	**NEPAC3213N**
125	10	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	131 (288.81)	218 (13303.2)	**NEPAC3214N**
125	16	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	52 (114.64)	80 (4881.9)	**NEPAC3221N**
125	16	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	57 (125.66)	100 (6102.4)	**NEPAC3222N**
125	16	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	71 (156.53)	125 (7628.0)	**NEPAC3223N**
125	16	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	131 (288.81)	218 (13303.2)	**NEPAC3224N**
125	20	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	52 (114.64)	80 (4881.9)	**NEPAC3231N**
125	20	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	57 (125.66)	100 (6102.4)	**NEPAC3232N**
125	20	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	71 (156.53)	125 (7628.0)	**NEPAC3233N**
125	20	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	131 (288.81)	218 (13303.2)	**NEPAC3234N**
125	25	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	52 (114.64)	80 (4881.9)	**NEPAC3241N**
125	25	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	57 (125.66)	100 (6102.4)	**NEPAC3242N**
125	25	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	71 (156.53)	125 (7628.0)	**NEPAC3243N**
125	25	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	131 (288.81)	218 (13303.2)	**NEPAC3244N**
125	32	2	8	550 (21.65)	480 (18.90)	285 (11.22)	445 (17.52)	350 (13.78)	NECM1G2H0	1.50	9/16”	52 (114.64)	80 (4881.9)	**NEPAC3251N**
125	32	2	10	655 (25.79)	480 (18.90)	285 (11.22)	555 (21.85)	350 (13.78)	NECM1G3H0	1.50	9/16”	57 (125.66)	100 (6102.4)	**NEPAC3252N**
125	32	2	14	800 (31.50)	490 (19.29)	285 (11.22)	695 (27.36)	355 (13.98)	NECM1G5H0	1.50	9/16”	71 (156.53)	125 (7628.0)	**NEPAC3253N**
125	32	2	20	1010 (39.76)	545 (21.46)	365 (14.37)	895 (35.24)	405 (15.94)	NECM1G6H0	4.00	3/4”	131 (288.81)	218 (13303.2)	**NEPAC3254N**

① C Curve, for circuit breakers up to 32 Amp.
② General circuit breaker with other currents, upon request.
*③ Standard thread: NPT. For BSP threads, replace the letter **N** with the letter **B** in the 10th position; example: NEPAC2101**B**.*

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Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NEPAC2101N-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 1		Step 2		Step 3
NEPAC2101N	—	**01N ABEH**	—	**02N CGK**
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

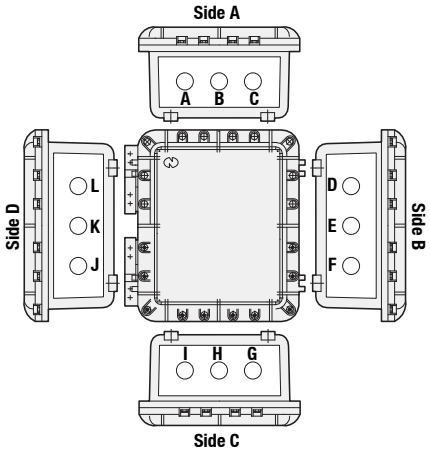
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"
08N	3"
09N	3-1/2"
10N	4"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"
08B	3"
09B	3-1/2"
10B	4"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50
07M	M63
08M	M75
09M	M90
10M	M100

Hole and Enclosure Side Locations



Thread Equivalence

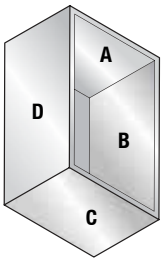
NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40
1-1/2"	M50

NPT/BSP	Metric
2"	M63
2-1/2"	M75
3"	M90
3-1/2"	M100

Drilling Technical Data

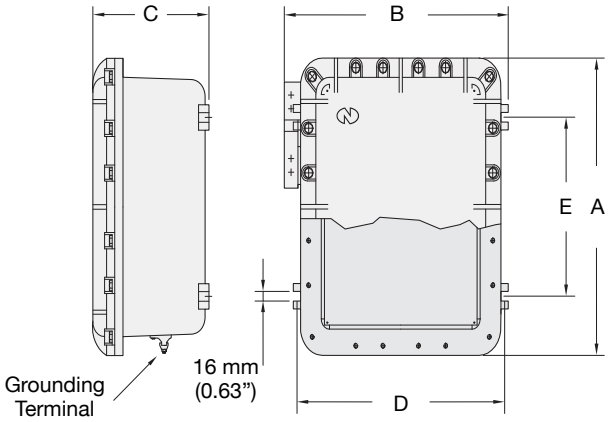
Enclosure	Maximum Diameter Allowed Drilling
NECM1G2H0Y	1/2" to 4" - M16 to M100
NECM1G3H0Y	1/2" to 4" - M16 to M100
NECM1G5H0Y	1/2" to 4" - M16 to M100
NECM1G6H0Y	1/2" to 4" - M16 to M100

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Ø Threads	Maximum Number of Holes ① Side A–C Number of Circuits 8	10	14	20	Side B–D Number of Circuits 8	10	14	20
1/2”	15	15	15	15	18	24	30	39
3/4”	8	8	8	15	12	14	18	36
1”	8	8	8	12	10	12	16	30
1-1/4”	8	8	8	8	10	12	16	20
1-1/2”	6	6	6	6	8	10	14	16
2”	2	2	2	6	3	4	5	14
2-1/2”	2	2	2	2	3	4	5	6
3”	2	2	2	2	2	3	4	5
3 1/2”	2	2	1	2	2	2	3	4
4”	1	1	1	1	2	2	2	2

Enclosure Dimension Locations — Refer to Product Selection Charts on Previous Pages for Actual Dimensions



① *The number of holes indicated corresponds to the maximum number of holes allowed on each side. When ordering, please indicate the number of holes and diameter desired on each side*

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Nutsteel® NEPAD Distribution, Power and Protection Panelboard

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65



Applications

- Explosionproof panel for powering, distribution and protection of electrical circuits.
- Used in areas where there is risk of explosion. In industries such as:
  - — Petroleum refineries
  - — Chemical refineries
  - — Paints and varnishes manufacturing
  - — Pharmaceutical manufacturing
  - — Food processing
  - — Dairy
  - — Brewing
  - — Flammable product storage facilities
  - — Other industrial process facilities

Features

- Panel comes fully assembled with circuit breakers, copper bar up to 150 Amp interconnected to the internal wiring.
- General 3-pole circuit breaker, 125 A, 25 kA at 220/240 V, 18 kA at 380/415 V, 14k A at 440 V.
- General 3-pole circuit breaker, 10 to 32 A, 25 kA at 220/240 V, 15 kA at 380/415 V, 10 kA at 440 V.
- Comes with external grounding terminal for 25 mm^2 (0.0388 in^2) cable
- Exd: Flameproof method of protection suitable for Zone 1 and 2.
- Entry and exit of electrical conductors must be with 5597 or 5598 conduit, or explosionproof cable glands.
- To assure the appropriate level of safety, preventing the propagation of the explosion through the gap, we recommend fixing the cover with all of the screws and following the torque specified.

Standard Materials

- Body and cover: copperfree diecast aluminum alloy
- Screws and flat washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- Holes different from those specified may be provided, depending on the size of the box and the diameter of the cable entries. Contact your local sales representative.
- Available with GFI (Residual Device, DR) for protection, upon request.

NBR IEC Brazilian Certifications and Compliances

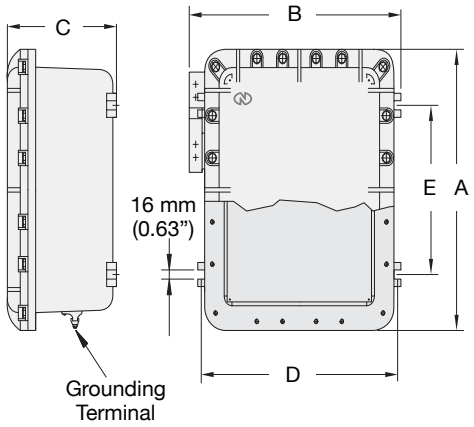
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60947-31
- Other Standards: ABNT NBR IEC 60529 (IP)
- Certificate of Compliance: TUV 12.0427
- Temperature Class: T6

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Nutsteel® NEPAD Distribution, Power and Protection Panelboard

Explosionproof

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB
Ex tb IIIB
IP65



Circuit Breakers – C Curve ①

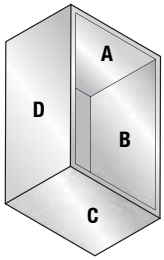
Circuit			Dimensions mm (in)					Screws				
Current (A)	No. of Poles	No. of Circuit	A	B	C	D	E	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ②③
10	3	6	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD0301N**
16	3	6	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD0311N**
20	3	6	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD0321N**
25	3	6	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD0331N**
32	3	6	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD0341N**

Circuit Breakers – C Curve ①

General	Circuit			Dimensions mm (in)					Screws				
3–Pole (A)	Current (A)	No. of Poles	No. of Circuit	A	B	C	D	E	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ②③
125	10	3	5	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD3301N**
125	16	3	5	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD3311N**
125	20	3	5	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD3321N**
125	25	3	5	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD3331N**
125	32	3	5	790 (31.1)	365 (14.37)	210 (8.27)	340 (13.39)	610 (24.02)	1.50	9/16"	50.50 (111.33)	75.00 (4576.8)	**NEPAD3341N**

① C Curve, for circuit breakers up to 32 Amp.
② General circuit breaker with other currents, upon request.
*③ Standard thread: NPT. For BSP threads, replace the letter **N** with the letter **B** in the 10th position; For Metric threads, substitute for letter **M**; example: NEPAC3301**B**.*

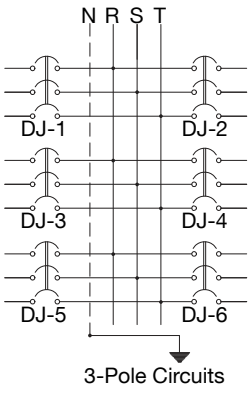
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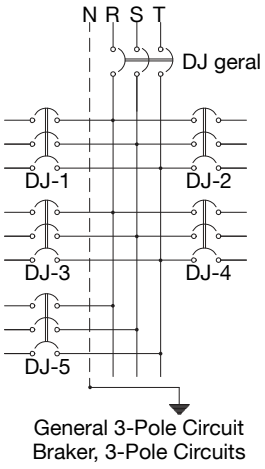
Ø Thread	Maximum Number of Holes ① Side A	B	C	D
1/2”	8	20	8	20
3/4”	6	18	6	18
1”	3	8	3	8
1-1/4”	3	8	3	8
1-1/2”	2	7	2	7
2”	2	5	2	5
2-1/2”	1	5	1	5

System Wiring Diagram

NEPAD03



NEPAD33



① *The number of holes indicated corresponds to the maximum number of holes allowed on each side. When ordering, please indicate the number of holes and diameter desired on each side.*

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Ordering Information

To indicate the drilling configuration, follow the information below:

Example: NEPAD0301N-01NABEH-02NCGK

Step 1 Enclosure catalog number

Step 2 A. Specify the first thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the first hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 3 A. Specify the second thread size using the symbol in the "Specifying the Thread Size" table.
B. Specify the second hole positions using the letters A thru L in the "Hole and Enclosure Side Locations" diagram.
C. Verify size and number of hole limitations for the enclosure using the "Drilling Technical Data" on following page.

Step 1		Step 2		Step 3
NEPAD0301N	—	01N ABEH	—	02N CGK
Enclosure Catalog Number		Type of thread and hole position (1/2" NPT; positions A, B, E and H)		2nd type of thread and its hole position (3/4" NPT; positions C, G and K)

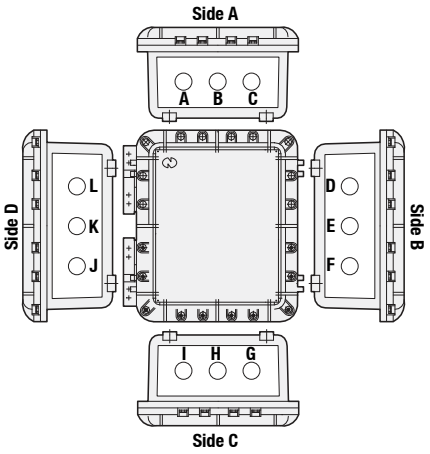
Specifying the Thread Size

Symbol	Thread NPT
01N	1/2"
02N	3/4"
03N	1"
04N	1-1/4"
05N	1-1/2"
06N	2"
07N	2-1/2"

Symbol	Thread BSP
01B	1/2"
02B	3/4"
03B	1"
04B	1-1/4"
05B	1-1/2"
06B	2"
07B	2-1/2"

Symbol	Thread Metric
01M	M16
02M	M20
03M	M25
04M	M32
05M	M40
06M	M50
07M	M63

Hole and Enclosure Side Locations



Thread Equivalence

NPT/BSP	Metric
1/2"	M16/M20
3/4"	M25
1"	M32
1-1/4"	M40

NPT/BSP	Metric
1-1/2"	M50
2"	M63
2-1/2"	M75

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Nutsteel® Custom Switchracks:

Built to Comply with NBR IEC Brazilian Standards and Certifications

From Design to Installation, Nutsteel Manufactures Switchracks to Your Specifications

Nutsteel has over 40 years of industry experience developing and manufacturing equipment for explosive atmospheres. Offering products within the specified standards, we always seek the best solutions for each unique requirement. As a pioneer in the field, Nutsteel Industria Metalurgica Ltda. has ISO 9001 certification in Brazil for the design, development, manufacture and sales of electric equipment and parts for installations in potentially explosive atmosphere and industrial areas.

The product portfolio includes control panels, power and distribution panels, lighting and motor control centers for use in explosive atmospheres and TGVP (heavy duty industrial areas [non-hazardous location] where there is a need for watertight, dust-tight, vapor-proof, gas-tight enclosures). To maintain our leadership in the rapid development of projects in these areas, our engineering department is trained in AutoCAD for designing drafts of special projects or specific shielded electrical panels. Our switchracks and their components are designed for safety and performance. They are built according to customer specifications. As a result, each offers a unique and innovative solution to the challenges of the specified location.

The panels are provided completely assembled, with all the components and wiring installed. The only field requirements are the connection of incoming power to the main bus and the load side connections.

Nutsteel has developed its capabilities with attention to the customer's key concerns:

- Custom Design
- Quality Components
- Turnkey Fabrication
- Guaranteed Satisfaction

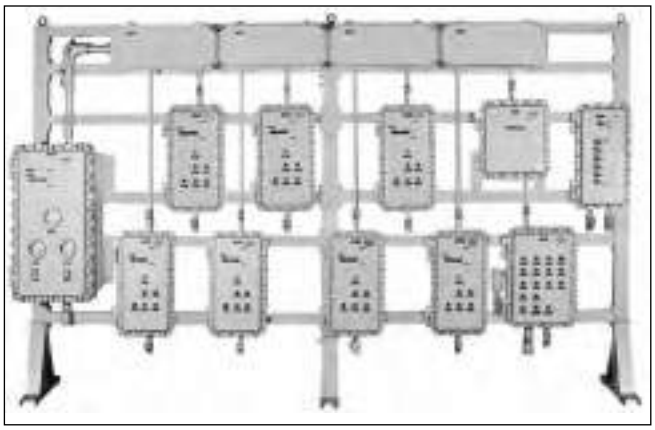
Together, these qualify Nutsteel as an authority on equipment solutions, components and accessories for electrical installations in hazardous areas, industrial facilities and explosive atmospheres.

Customer Design

- The demands of your application are unique. Your switchrack should be too. That is why Nutsteel's engineers use your specifications and engineering drawings as well as all applicable codes and standards to design your custom switchrack solution. It is the only way to guarantee the switchrack will meet your needs today... and tomorrow.
- Through experience, we have learned the value of staying on the cutting edge of design technology. The company's AutoCAD workstations allow design files to be shared with your in-house engineers for quick revisions. This saves time and money and it means your switchrack will be up and running faster.

Turnkey Fabrication

- Every Nutsteel switchrack is engineered, fabricated and assembled in-house by qualified technicians. This single-source approach allows us complete control over the manufacturing process.
- Following a series of rugged performance examinations, each switchrack is shipped via carrier for immediate field installation.



Guaranteed Satisfaction

- Nutsteel's involvement does not end with the purchase order. The company backs its' switchracks with a unique factory warranty. Should any Nutsteel component fail due to mechanical or electrical defect, Nutsteel will replace the part for up to one year following installation, or 18 months after shipment.

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Nutsteel® Custom Switchracks:

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From Design to Installation, Nutsteel Manufactures Switchracks to Your Specifications

Application

- Nutsteel switchracks provide complete motor control assemblies in one integrated package. Choose the necessary Nutsteel components to fit the rating, electrical switching and controlling requirements.

Features

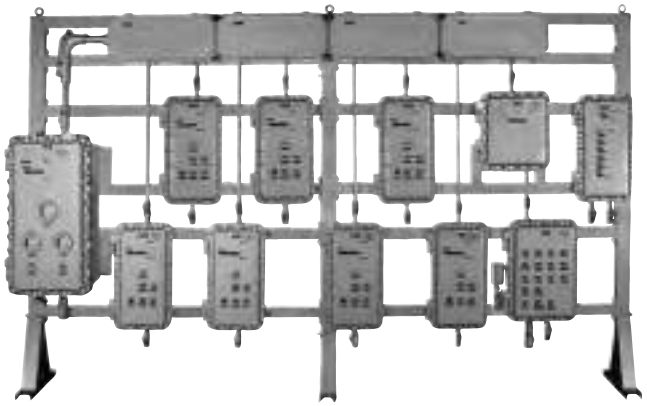
- Single source responsibility, including engineering, designing, wiring and testing of all components.
- Fabricated and wired to custom specifications.
- Only job site requirements are connection of incoming power to the main bus and load side connections.
- TÜV listed bus up to 1600 Amp. For larger requirements, please contact your local representative.

Optional Components

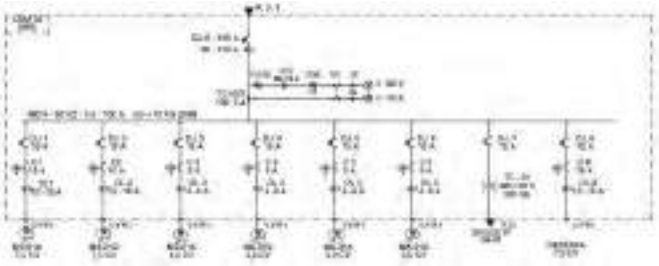
- Circuit breakers
- Motor starters
- Contactors
- Junction boxes
- Control stations
- Meter/instrument enclosures
- Ground detection
- Panelboards
- Receptacles
- Photo cells
- Light fixtures
- Transformers

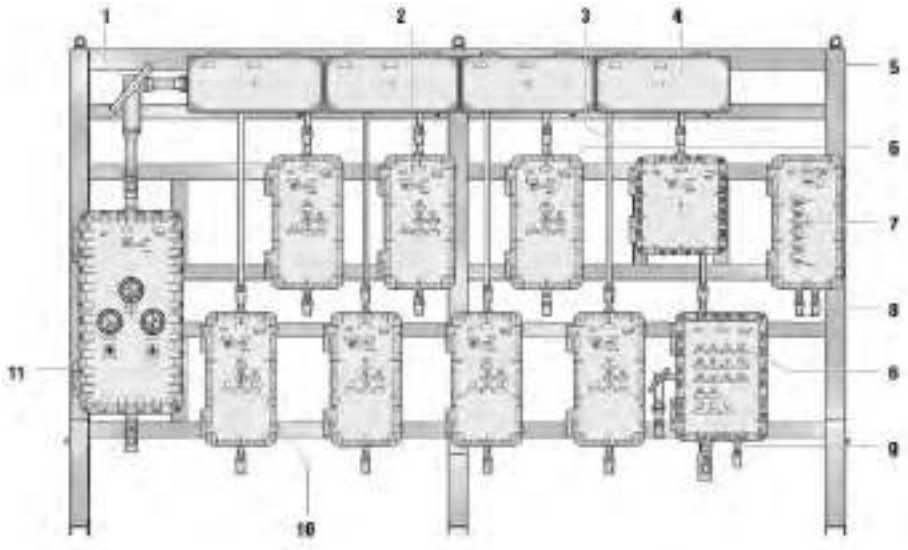
Standard Finishes

- Structure: steel-painted, steel-galvanized or aluminum.
- Bus duct/conduit: steel-painted, galvanized aluminum or stainless steel.
- Canopy/roof: steel-galvanized or aluminum.



Wiring Diagram





Legend

1 - NECNI Explosionproof Elbow
2 - Control Switch to Drive Circuit Breaker
3 - NBR5597 Heavy Duty Conduit
4 - NTCM1 Junction Box
5 - Structure in galvanized iron
6 - Nameplate
7 - NECM1 Cast Explosionproof Junction Box
8 - Unit sealer NESVM
9 - NEUNM Male/Female Union
10 - Explosionproof Control Station Start/ Stop Button
11 - Ammeter/Voltmeter

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Nutsteel® Custom Switchrack Data Sheet:

Built to Comply with NBR IEC Brazilian Standards and Certifications

From Design to Installation, Nutsteel Manufactures Switchracks to Your Specifications

Customer Information

Date: _____ Quote Number: _____

Customer: _____ Revision: _____

Location: _____ Project Name: _____

Area Classification						
Zone	☐ Zone 1	☐ Zone 2	☐ Zone 21	☐ Zone 22		
Group	☐ Group IIA	☐ Group IIB	☐ Group IIC			
Certifications						
Certifications	☐ NBR IEC	☐ IEC	☐ IECEx	☐ ATEX		
Power Source						
Voltage	☐ 120 Vac	☐ 240 Vac	☐ 380 Vac	☐ 480 Vac	☐ 575 Vac	☐ 600 Vac
Phase	☐ Single	☐ Three		**Hertz**	☐ 50 Hz	☐ 60 Hz
Structure						
Material	☐ Steel-Painted	☐ Aluminum				
Design	☐ Single Sided	☐ Double Sided	☐ Single Row	☐ Double Row		
Bus Ducts					☐ **Required**	☐ **Not Required**
Material	☐ Steel-Painted	☐ Steel-Galvanized	☐ Aluminum	☐ Stainless Steel		
Certification	☐ NBR IEC	☐ IEC	☐ IECEx	☐ ATEX		
Type	☐ Single Access	☐ Dual Access				
Cooper Bus Plating	☐ Silver	☐ Tin				
Bracing	☐ 14,000 AIC	☐ 22,000 AIC	☐ 25,000 AIC	☐ 42,000 AIC	☐ 65,000 AIC	☐ 100,000 AIC
Options	☐ Insulated	☐ Silver Plated	☐ Tin Plated	☐ PEM Inserts	☐ Glyptol	☐ Weep Holess
	☐ Space Heater	☐ Thermostat	☐ Drains			
Corrugated Canopy Material					☐ **Required**	☐ **Not Required**
	☐ Steel-Galvanized	☐ Aluminum	☐ Fiberglass Reinforced Polyester (FRP)			
Conduit and Fittings						
	☐ Galvanized	☐ Aluminum	☐ PVC Coated	☐ Drain Seals		
Wire Type — Copper, +90 °C (+194 °F)						
Insulation	☐ XLPE	☐ EPR	☐ PVC			
Component Requirements						
Manufacturer	☐ General Electric	☐ Square D	☐ Cutler-Hammer	☐ Allen-Bradley	☐ Other	
Circuit Breaker	☐ Thermal-Mag	☐ Mag-Only	☐ Non-Auto	☐ Other		

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Nutsteel® Custom Switchrack Data Sheet:

Built to Comply with NBR IEC Brazilian Standards and Certifications

From Design to Installation, Nutsteel Manufactures Switchracks to Your Specifications

Component Accessories						
☐ Fuses	☐ Thermal Board	☐ Relays	☐ Breather/Drain	☐ Stop Push Button	☐ Start Push Button	☐ HOA Switch
☐ Name Plate	☐ Red Light	☐ Green Light	☐ CPT	☐ 100 Vac Extra	☐ Ring Terminal	☐ Wire Markers
☐ AUX. Contact N.O., N.C.	☐ Space Heater	☐ Copper Lugs	☐ Surge Protector	☐ Hi-Break Circuit Breaker		

Optional Components

Please provide a list of items (including your company's specifications) that the rack will support including quantities and sizes:

Motor Starters: _____

Lighting: _____

Breakers: _____

Transformers: _____

Receptacles: _____

Ground Indicators: _____

Panelboards: _____

Control Stations: _____

Disconnect Switches: _____

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Notes

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PLUGS AND RECEPTACLES

Nutsteel plugs and receptacles are engineered for use in the most hazardous and rugged locations. They are watertight, explosionproof and resistant to corrosion and vibration. When your access to power must remain uninterrupted and safe, make sure you install Nutsteel.







PLUGS AND RECEPTACLES

Plugs and Receptacles

Description	Page	NEC	CEC	ATEX / IEC	NBR IEC
ATEX/IECEx/NBR IEC Increased Safety Ex e Zone 1 Rated Plugs and Receptacles					
PRE Series 16 Amp Plugs and Receptacles: Increased Safety	386			X	X
PRE Series 32 Amp Plugs and Receptacles: Increased Safety	391			X	X
PRE Series 63 Amp Plugs and Receptacles: Increased Safety	395			X	X
PRE Series 125 Amp Plugs and Receptacles: Increased Safety	400			X	X
MRE Series 16 and 32 A Multiple Socket Outlets: Increased Safety	405			X	X



Série PRE



Série MRE

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A.T.X.® PRE Series 16 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK09/10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Applications

- Plugs and receptacles are used with portable or stationery electrical equipment such as:
  - — Lighting systems
  - — Conveyors
  - — Heaters
  - — Motor generators
  - — Air conditioning equipment
  - — Compressors
  - — Pumps
- For use in corrosive atmospheres and installations in Zone 1 and 2 and 21 and 22 of the oil and gas industry; such as:
  - — Refineries
  - — Chemical and petrochemical plants
  - — Pipelines
  - — Loading docks
  - — Onshore and offshore drilling platforms

Features

- Plug and socket system is designed with a safe disconnect mechanism to insure maximum hazardous location protection:
  - — The contact separation is in a flameproof chamber
  - — The automatic electrical disconnection of each phase is contained in a second flameproof chamber
- Short circuit protection is 20 kA, while normal reference is 10 kA.
- Different voltages are color coded for easy identification.
- The receptacles are keyed to accept only ATX plugs (other plugs can not be inserted).
- ATX plugs can be used in non-hazardous IEC 309 sockets.
- Operating temperature of -40 ºC to +55 ºC (-40 ºF to +131 ºF)

Standard Materials

- Wall Socket for 2P - 2P+E - 3P: high impact resistance polycarbonate
- Wall Socket for 3P+E - 3P+N+E: high impact resistance fiberglass reinforced polyester
- Plug, mobile socket and flush socket: polyamide

ATEX/IECEx Certifications and Compliances

- Certification Type PCX, PCX/EN
- Gas: Zones 1 and 2
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
  - — ATEX/IEC Protection: Ex de IIC
  - — T6 for Ta ≤ +40 °C (+104 °F) and T5 for Ta ≤ +55 °C (+131 °F)
  - — Ambient Temperature: -40 °C ≤ Ta ≤ +55 °C (-40 °F ≤ Ta ≤ +131 °F)
- Dust: Zones 21 and 22
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
  - — ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: T68 °C (T154 °F)
  - — Ambient Temperature: -40 °C ≤ Ta ≤ +55 °C (-40 °F ≤ Ta ≤ +131 °F)
- CE Declaration of Conformity: 50228, 5C214
- ATEX Certificate: LCIE 02 ATEX 6068, LCIE 02 ATEX 0001U
- IECEx Certificate: IECEx LCI 04.0014, IECEx LCI 04.0012
- Other Certifications: GOST
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10 (Polyester) and IK09 (Polyamide)
- Ex Standards: EN/IEC 60079-0; 60079-1; 60079-7; 61241-0; 61241-1
- Product Standards: EN/IEC 60309-1, 60309-2
- Other Standards: EN/IEC 60529 (IP), 62262 (IK)



Plug



Wall Mounting Socket



Mobile Socket



Flush Socket

Technical Data

Breaking Capacity	
AC 3	4 kW – 220 V
	4.3 kW – 240 V
	7.5 kW – 380 V
	8.2 kW – 415 V
ICC	20 kA

NBR IEC Brazilian Certifications and Compliances

- Certification Type PCX, PCX/EN
- Gas: Zones 1 and 2
- Dust: Zones 21 and 22
- IEC Protection: Ex de IIC Gb; T6 for Ta ≤ +40 °C (+104 °F) and T5 for Ta ≤ +55 °C (+131 °F)
- Ambient Temperature: -40 °C ≤ Ta ≤ +55 °C (-40 °F ≤ Ta ≤ +131 °F)
- Inmetro Certificate: BR230639, BR230598-U
- Ingress Protection (solid and liquid): IP66
- Ex Standards: NBR IEC 60079-0; 60079-1; 60079-7
- Other Standards: NBR IEC 60529 (IP)

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A.T.X.® PRE Series 16 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK09/10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66



Wall Mounting Socket

- Three M20 threaded entries (one on the top and two on the bottom).
- Supplied with one M20 cable gland – Ø 6.5 to Ø 14.5 mm (Ø 0.26 to Ø 0.57") and two M20 blanking plugs.
- Terminal capacity 2 x 4 mm² (0.003 x 0.006 in²). Can be through-wired.
- Fitted with three linked earth terminals.



Plug

- One PG16 integrated cable gland – Ø 6.5 to Ø 14.5 mm (Ø 0.26 to Ø 0.57").
- Terminal capacity 2.5 mm² (0.004 in²).



Mobile Socket

- One PG16 integrated cable gland – Ø 6.5 to Ø 14.5 mm (Ø 0.26 to Ø 0.57").
- Terminal capacity 2 x 4 mm² (0.003 x 0.006 in²).



Flush Socket

- Terminal capacity 2 x 4 mm² (0.003 x 0.006 in²).

Catalog Numbering Guide - IECEx Internationally Certified Plugs and Receptacles

PRE	2	16	R	P
IECEx Series: PRE - PRE Series Zone 1, 2, 21 and 22 ATEX / IEC	Pin Configuration: 2 - 2P 3 - 2P+E 4 - 3P+E 5 - 3P+N+E 6 - 3P	Amps: 16 - 16A	Equipment: P - Plug R - Receptacle (Wall Mounting) M - Mobile Socket F - Flush Socket	Voltage: P - 20 - 25 Vac 50/60 Hz W1 - 20 - 50 Vdc W - 40 - 50 Vac 50/60 Hz Y - 100 - 130 Vac 50/60 Hz B - 200 - 250 Vac 50/60 Hz R - 380 - 415 Vac 50/60 Hz N - 480 - 500 Vac 50/60 Hz G - 50 - 500 Vac 300 to 500 Hz

Catalog Numbering Guide - NBR IEC Brazilian Certified Plugs and Receptacles

N PRE	2	16	R	P
NBR IEC Series: PRE - PRE Series Zone 1, 2, 21 and 22 NBR IEC Certified	Pin Configuration: 2 - 2P 3 - 2P+E 4 - 3P+E 5 - 3P+N+E 6 - 3P	Amps: 16 - 16A	Equipment: P - Plug R - Receptacle (Wall Mounting) M - Mobile Socket F - Flush Socket	Voltage: P - 20 - 25 Vac 50/60 Hz W1 - 20 - 50 Vdc W - 40 - 50 Vac 50/60 Hz Y - 100 - 130 Vac 50/60 Hz B - 200 - 250 Vac 50/60 Hz R - 380 - 415 Vac 50/60 Hz N - 480 - 500 Vac 50/60 Hz G - 50 - 500 Vac 300 to 500 Hz

ELV: Extra Low Voltage

Purple	White	White
20/25 Vac	20/50 Vdc	40/50 Vac

LV: Low Voltage

Yellow	Blue	Red	Black	Green
100/130 Vac	200/250 Vac	380/415 Vac	480/500 Vac	50/500 Vac (300 to 500 Hz)

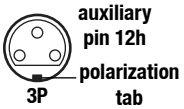
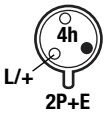
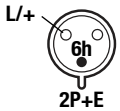
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A.T.X.® PRE Series 16 Amp Extra Low Voltage and Low Voltage Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66 - IK09/10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Description	Pin Configuration	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR
Extra Low Voltage: ELV					
20/25 Vac 50/60 Hz — Purple					
Wall Socket		0.6 (1.3)	3.8 (231.89)	**PRE216RP**	**NPRE216RP**
Plug		0.2 (0.4)	0.6 (361.6)	**PRE216PP**	**NPRE216PP**
Mobile Socket		0.4 (0.9)	1.3 (79.33)	**PRE216MP**	**NPRE216MP**
Flush Socket		0.2 (0.4)	1.3 (79.33)	**PRE216FP**	**NPRE216FP**
Wall Socket		0.6 (1.3)	3.8 (231.89)	**PRE316RP**	**NPRE316RP**
Plug		0.2 (0.4)	0.6 (36.61)	**PRE316PP**	**NPRE316PP**
Mobile Socket		0.4 (0.9)	1.3 (79.33)	**PRE316MP**	**NPRE316MP**
Flush Socket		0.2 (0.4)	1.3 (79.33)	**PRE316FP**	**NPRE316FP**
Wall Socket		0.6 (1.3)	3.8 (231.89)	**PRE616RP**	**NPRE616RP**
Plug		0.2 (0.4)	0.6 (36.61)	**PRE616PP**	**NPRE616PP**
Mobile Socket		0.4 (0.9)	1.3 (79.33)	**PRE616MP**	**NPRE616MP**
Flush Socket		0.2 (0.4)	1.3 (79.33)	**PRE616FP**	**NPRE616FP**
20/50 Vdc — White					
Wall Socket		0.6 (1.3)	3.8 (231.89)	**PRE216RW1**	**NPRE216RW1**
Plug		0.2 (0.4)	0.6 (36.61)	**PRE216PW1**	**NPRE216PW1**
Mobile Socket		0.4 (0.9)	1.3 (79.33)	**PRE216MW1**	**NPRE216MW1**
Flush Socket		0.2 (0.4)	1.3 (79.33)	**PRE216FW1**	**NPRE216FW1**
40/50 Vac 50/60 Hz — White					
Wall Socket		0.6 (1.3)	3.8 (231.89)	**PRE216RW**	**NPRE216RW**
Plug		0.2 (0.4)	0.6 (36.61)	**PRE216PW**	**NPRE216PW**
Mobile Socket		0.4 (0.9)	1.3 (79.33)	**PRE216MW**	**NPRE216MW**
Flush Socket		0.2 (0.4)	1.3 (79.33)	**PRE216FW**	**NPRE216FW**
Wall Socket		0.6 (1.3)	3.8 (231.89)	**PRE616RW**	**NPRE616RW**
Plug		0.2 (0.4)	0.6 (36.61)	**PRE616PW**	**NPRE616PW**
Mobile Socket		0.4 (0.9)	1.3 (79.33)	**PRE616MW**	**NPRE616MW**
Flush Socket		0.2 (0.4)	1.3 (79.33)	**PRE616FW**	**NPRE616FW**
Low Voltage: LV					
100/130 Vac 50/60 Hz — Yellow					
Wall Socket		0.6 (1.3)	3.8 (231.89)	**PRE316RY**	**NPRE316RY**
Plug		0.2 (0.4)	0.6 (36.61)	**PRE316PY**	**NPRE316PY**
Mobile Socket		0.4 (0.9)	1.3 (79.33)	**PRE316MY**	**NPRE316MY**
Flush Socket		0.2 (0.4)	1.3 (79.33)	**PRE316FY**	**NPRE316FY**
200/250 Vac 50/60 Hz — Blue					
Wall Socket		0.6 (1.3)	3.8 (231.89)	**PRE316RB**	**NPRE316RB**
Plug		0.2 (0.4)	0.6 (36.61)	**PRE316PB**	**NPRE316PB**
Mobile Socket		0.4 (0.9)	1.3 (79.33)	**PRE316MB**	**NPRE316MB**
Flush Socket		0.2 (0.4)	1.3 (79.33)	**PRE316FB**	**NPRE316FB**

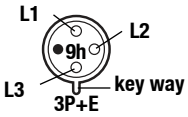
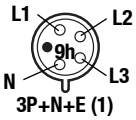
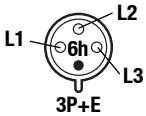
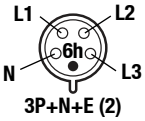
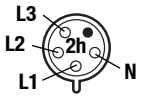
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A.T.X.® PRE Series 16 Amp Low Voltage Plugs and Sockets and Accessories

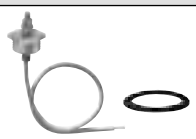
Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66 - IK09/10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Description	Pin Configuration	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR
Low Voltage: LV					
200/250 Vac 50/60 Hz — Blue					
Wall Socket		1.5 (3.3)	4.7 (286.81)	**PRE416RB**	**NPRE416RB**
Plug		0.6 (1.3)	0.6 (361.6)	**PRE416PB**	**NPRE416PB**
Mobile Socket		0.6 (1.3)	4.0 (244.09)	**PRE416MB**	**NPRE416MB**
Flush Socket		0.2 (0.4)	1.3 (79.33)	**PRE416FB**	**NPRE416FB**
Wall Socket		1.6 (3.5)	4.7 (286.81)	**PRE516RB**	**NPRE516RB**
Plug		0.3 (0.7)	1.3 (79.33)	**PRE516PB**	**NPRE516PB**
Mobile Socket		0.6 (1.3)	4.0 (244.09)	**PRE516MB**	**NPRE516MB**
Flush Socket	*(1) 120/208 V - 144/250 Vac 50/60 Hz*	0.2 (0.4)	1.3 (79.33)	**PRE516FB**	**NPRE516FB**
380/415 Vac 50/60 Hz — Red					
Wall Socket		1.5 (3.3)	4.7 (286.81)	**PRE416RR**	**NPRE416RR**
Plug		0.2 (0.4)	0.6 (361.6)	**PRE416PR**	**NPRE416PR**
Mobile Socket		0.6 (1.3)	4.0 (244.09)	**PRE416MR**	**NPRE416MR**
Flush Socket		0.3 (0.7)	1.3 (79.33)	**PRE416FR**	**NPRE416FR**
Wall Socket		1.6 (3.5)	4.7 (286.81)	**PRE516RR**	**NPRE516RR**
Plug		0.3 (0.7)	1.3 (79.33)	**PRE516PR**	**NPRE516PR**
Mobile Socket		0.6 (1.3)	4.0 (244.09)	**PRE516MR**	**NPRE516MR**
Flush Socket	*(2) 200/346 V - 240/415 Vac 50/60 Hz*	0.3 (0.7)	1.3 (79.33)	**PRE516FR**	**NPRE516FR**
480/500 Vac 50/60 Hz — Black					
Wall Socket		1.5 (3.3)	4.7 (286.81)	**PRE416RN**	**NPRE416RN**
Plug		0.2 (0.4)	0.6 (361.6)	**PRE416PN**	**NPRE416PN**
Mobile Socket		0.6 (1.3)	4.0 (244.09)	**PRE416MN**	**NPRE416MN**
Flush Socket		0.3 (0.7)	1.3 (79.33)	**PRE416FN**	**NPRE416FN**
50/500 Vac 300/500 Hz — Green					
Wall Socket		1.6 (3.5)	4.7 (286.81)	**PRE516RG**	**NPRE516RG**
Plug		0.2 (0.4)	0.6 (361.6)	**PRE516PG**	**NPRE516PG**
Mobile Socket		0.6 (1.3)	4.0 (244.09)	**PRE516MG**	**NPRE516MG**
Flush Socket		0.3 (0.7)	1.3 (79.33)	**PRE516FG**	**NPRE516FG**

Accessories

	Description	Catalog Number IECEx	Catalog Number NBR
	M5 earth stud with black neoprene sealing washer and green/yellow earth conductor, length 300 mm (11.8”)	**PREESTM20**	**NPREESTM20**
	M20 earth continuity adaptor with black neoprene sealing washer and green/yellow earth conductor, length 300 mm (11.8”)	**PREECAM20**	**NPREECAM20**

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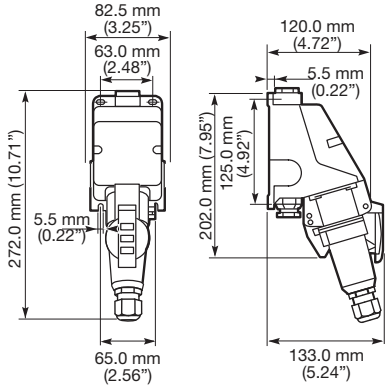
A.T.X.® PRE Series 16 Amp Plug and Socket Dimensions

Increased Safety

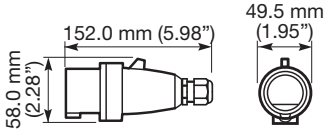
Dimensions

16A — 2P — 2P+E — 3P Versions

Wall Mounting Sockets

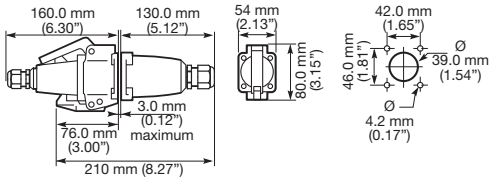


Plugs

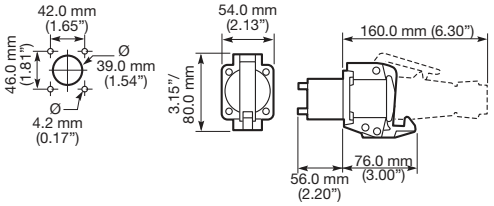


Mobile Sockets

Can be mounted on panel - 0.12"/3.0 mm thickness maximum

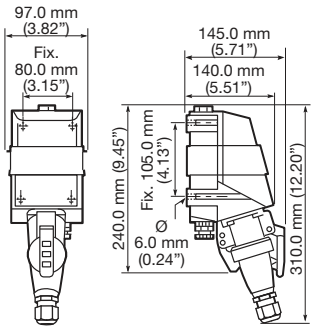


Flush Sockets

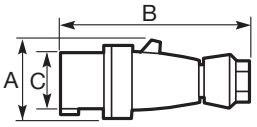


16A — 3P+E — 3P+N+E Versions

Wall Mounting Sockets



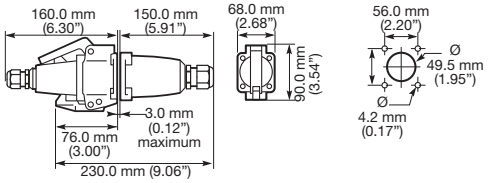
Plugs



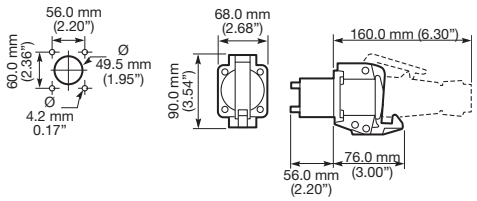
	Dimensions in Millimeters (Inches)		
	A	B	C
3 P + E	66.0 (2.60)	154.0 (6.06)	55.5 (2.19)
3 P + N + E	73.0 (2.87)	166.0 (6.54)	62.0 (2.44)

Mobile Sockets

Can be mounted on panel - 3.0 mm (0.12") thickness maximum



Flush Sockets



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A.T.X.® PRE Series 32 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Applications

- Plugs and sockets are used with portable or stationery electrical equipment such as:
  - — Lighting systems
  - — Conveyors
  - — Heaters
  - — Motor generators
  - — Air conditioning equipment
  - — Compressors
  - — Pumps
- For use in corrosive atmospheres and installations in Zone 1 and 2 and 21 and 22 of the oil and gas industry, such as:
  - — Refineries
  - — Chemical and petrochemical plants
  - — Pipelines
  - — Loading docks
  - — Onshore and offshore drilling platforms

Features

- Plug and socket system is designed with a safe disconnect mechanism to insure maximum hazardous location protection:
  - — The contact separation is in a flameproof chamber
  - — The automatic electrical disconnection of each phase is contained in a second flameproof chamber
- Short circuit protection is 20 kA, while normal reference is 10 kA.
- Different voltages are color coded for easy identification.
- The sockets are keyed to accept only ATX plugs (other plugs can not be inserted).
- ATX plugs can be used in non-hazardous sockets.

Standard Materials

- Wall Socket: high impact resistance fiberglass reinforced polyester
- Plug, mobile socket and flush socket: polyamide

ATEX/IECEx Certifications and Compliances

- Certification Type PCX, PCX/EN
- Gas: Zones 1 and 2
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
  - — ATEX/IEC Protection: Ex de IIC
  - — T-Rating: T6 for Ta ≤ +40 °C (+104 °F) and T5 for Ta ≤ +55 °C (+131 °F)
  - — Ambient Temperature: -40 °C ≤ Ta ≤ +55 °C (-40 °F ≤ Ta ≤ +131 °F)
  - — Impact Resistance (shock): IK10 (Polyester) and IK09 (Polyamide)
- Dust: Zones 21 and 22
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
  - — ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: T154 °F/T68 °C
  - — Ambient Temperature: -40 °C ≤ Ta ≤ +55 °C (-40 °F ≤ Ta ≤ +131 °F)
  - — Impact Resistance (shock): IK10
- CE Declaration of Conformity: 50228, 5C214
- ATEX Certificate: LCIE 02 ATEX 6068, LCIE 02 ATEX 0001U
- IECEx Certificate: IECEx LCI 04.0014, IECEx LCI 04.0012
- Other Certifications: GOST
- Ingress Protection (solid and liquid): IP66
- Ex Standards: EN/IEC 60079-0; 60079-1; 60079-7; 61241-0; 61241-1
- Product Standards: EN/IEC 60309-1, 60309-2
- Other Standards: EN/IEC 60529 (IP), 62262 (IK)

LV: Low Voltage



Plug



Wall Mounting Socket



Mobile Socket



Flush Socket

Technical Data

Breaking Capacity	
AC 1	32 A – 500 V
AC 22	11 kW – 220 V
	12 kW – 240 V
	19 kW – 380 V
	20.7 kW – 415 V
ICC	20 kA

NBR IEC Brazilian Certifications and Compliances

- Certification Type PCX, PCX/EN
- Gas: Zones 1 and 2
- Dust: Zones 21 and 22
- IEC Protection: Ex de IIC Gb; T6 for Ta ≤ +40 °C (+104 °F) and T5 for Ta ≤ +55 °C (+131 °F)
- Ambient Temperature: -40 °C ≤ Ta ≤ +55 °C (-40 °F ≤ Ta ≤ +131 °F)
- Inmetro Certificate: BR230639, BR230598-U
- Ingress Protection (solid and liquid): IP66
- Ex Standards: NBR IEC 60079-0; 60079-1; 60079-7
- Other Standards: NBR IEC 60529 (IP)

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A.T.X.® PRE Series 32 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66



Wall Mounting Socket

- Three M25 threaded entries (one on the top and two on the bottom).
- Supplied with one M25 cable gland – Ø 8 to Ø 18.5 mm (Ø 0.31 to Ø 0.73") and two M25 blanking plugs.
- Terminal capacity 2 x 6 mm² (0.003 x 0.009 in²).
- Fitted with three linked earth terminals.



Plug

- One PG21 integrated cable gland – Ø 8 to Ø 18.5 mm (Ø 0.31 to Ø 0.73") for 3P+N+E versions.
- Terminal capacity 6 mm² (0.009 in²).



Mobile Socket

- One PG21 integrated cable gland – Ø 8 to Ø 18.5 mm (Ø 0.31 to Ø 0.73") for 2P+E and 3P+E versions.
- One PG29 integrated cable gland – Ø 18 to Ø 25 mm (Ø 0.70 to Ø 0.98") for 3P+N+E versions.
- Terminal capacity 2 x 6 mm² 0.003 x 0.009 in²)



Flush Socket

- Terminal capacity 2 x 6 mm² 0.003 x 0.009 in²)

Catalog Numbering Guide — IECEx Internationally Certified Plugs and Receptacles

PRE	3	32	R	P
IECEx Series: PRE - PRE Series Zone 1, 2, 21 and 22 ATEX / IEC Certified	Pin Configuration: 3 - 2P+E 4 - 3P+E 5 - 3P+N+E	Amps: 32 - 32A	Equipment: P - Plug R - Receptacle (Wall Mounting) M - Mobile Socket F - Flush Socket	Voltage: Y - 100 - 130 Vac 50/60 Hz B - 200 - 250 Vac 50/60 Hz R - 380 - 415 Vac 50/60 Hz N - 480 - 500 Vac 50/60 Hz

Catalog Numbering Guide — NBR IEC Brazilian Certified Plugs and Receptacles

N PRE	3	32	R	P
NBR IEC Series: PRE - PRE Series Zone 1, 2, 21 and 22 NBR IEC Certified	Pin Configuration: 3 - 2P+E 4 - 3P+E 5 - 3P+N+E	Amps: 32 - 32A	Equipment: P - Plug R - Receptacle (Wall Mounting) M - Mobile Socket F - Flush Socket	Voltage: Y - 100 - 130 Vac 50/60 Hz B - 200 - 250 Vac 50/60 Hz R - 380 - 415 Vac 50/60 Hz N - 480 - 500 Vac 50/60 Hz

LV: Low Voltage

Yellow	Blue	Red	Black
100/130 Vac	200/250 Vac	380/415 Vac	480/500 Vac

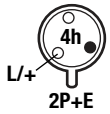
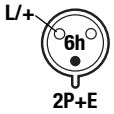
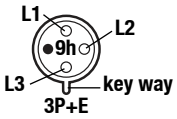
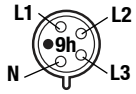
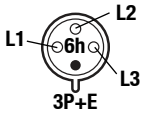
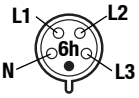
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A.T.X.® PRE Series 32 Amp Low Voltage Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Description	Pin Configuration	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR
100/130 Vac 50/60 Hz — Yellow					
Wall Socket		1.9 (4.19)	7.0 (427.17)	**PRE332RY**	**NPRE332RY**
Plug		0.5 (1.10)	4.0 (244.09)	**PRE332PY**	**NPRE332PY**
Mobile Socket		0.8 (1.76)	3.2 (195.28)	**PRE332MY**	**NPRE332MY**
Flush Socket		0.6 (1.32)	2.7 (164.76)	**PRE332FY**	**NPRE332FY**
200/250 Vac 50/60 Hz — Blue					
Wall Socket		1.9 (4.19)	7.0 (427.17)	**PRE332RB**	**NPRE332RB**
Plug		0.5 (1.10)	4.0 (244.09)	**PRE332PB**	**NPRE332PB**
Mobile Socket		0.8 (1.76)	3.2 (195.28)	**PRE332MB**	**NPRE332MB**
Flush Socket		0.6 (1.32)	2.7 (164.76)	**PRE332FB**	**NPRE332FB**
Wall Socket		1.9 (4.19)	7.0 (427.17)	**PRE432RB**	**NPRE432RB**
Plug		0.5 (1.10)	4.0 (244.09)	**PRE432PB**	**NPRE432PB**
Mobile Socket		0.8 (1.76)	3.2 (195.28)	**PRE432MB**	**NPRE432MB**
Flush Socket		0.6 (1.32)	2.7 (164.76)	**PRE432FB**	**NPRE432FB**
Wall Socket	 **3P+N+E (1)** *(1) 120/208 V - 144/250 Vac 50/60 Hz*	1.9 (4.19)	7.0 (427.17)	**PRE532RB**	**NPRE532RB**
Plug		0.5 (1.10)	4.0 (244.09)	**PRE532PB**	**NPRE532PB**
Mobile Socket		1.0 (2.20)	4.0 (244.09)	**PRE532MB**	**NPRE532MB**
Flush Socket		0.6 (1.32)	2.7 (164.76)	**PRE532FB**	**NPRE532FB**
380/415 Vac 50/60 Hz — Red					
Wall Socket		2.0 (4.41)	7.0 (427.17)	**PRE432RR**	**NPRE432RR**
Plug		0.4 (0.88)	4.0 (244.09)	**PRE432PR**	**NPRE432PR**
Mobile Socket		0.8 (1.76)	3.2 (195.28)	**PRE432MR**	**NPRE432MR**
Flush Socket		0.6 (1.32)	2.7 (164.76)	**PRE432FR**	**NPRE432FR**
Wall Socket	 **3P+N+E (2)** *(2) 200/346 V - 240/415 Vac 50/60 Hz*	2.0 (4.41)	7.0 (427.17)	**PRE532RR**	**NPRE532RR**
Plug		0.5 (1.10)	4.0 (244.09)	**PRE532PR**	**NPRE532PR**
Mobile Socket		1.0 (2.20)	4.0 (244.09)	**PRE532MR**	**NPRE532MR**
Flush Socket		0.6 (1.32)	2.7 (164.76)	**PRE532FR**	**NPRE532FR**
480/500 Vac 50/60 Hz — Black					
Wall Socket		2.0 (4.41)	7.0 (427.17)	**PRE432RN**	**NPRE432RN**
Plug		0.4 (0.88)	4.0 (244.09)	**PRE432PN**	**NPRE432PN**
Mobile Socket		1.0 (2.20)	4.0 (244.09)	**PRE432MN**	**NPRE432MN**
Flush Socket		0.6 (1.32)	2.7 (164.76)	**PRE432FN**	**NPRE432FN**

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A.T.X.® PRE Series 32 Amp Low Voltage Plug and Socket Accessories and Dimensions

Increased Safety

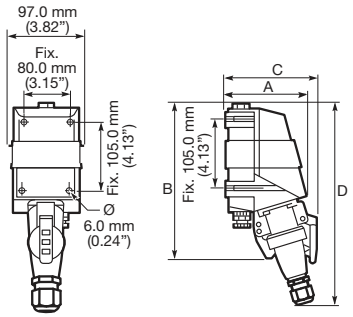
Accessories

	Description	Catalog Number IECEx	Catalog Number NBR
	M5 earth stud with black neoprene sealing washer and green/yellow earth conductor, length 300 mm (11.8")	**PREESTM25**	**NPREESTM25**
	M20 earth continuity adaptor with black neoprene sealing washer and green/yellow earth conductor, length 300 mm (11.8")	**PREECAM25**	**NPREECAM25**

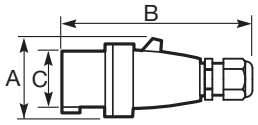
Dimensions

32A — 2P+E — 3P+E — 3P+N+E Versions

Wall Mounting Sockets



Plugs

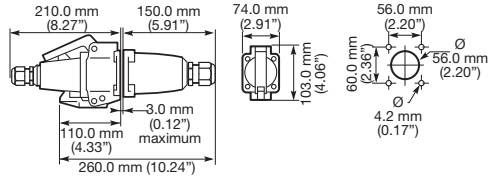


	Dimensions in Millimeters (Inches) A	B	C	D
2 P + E	140.0 (5.51)	275.0 (10.83)	155.0 (6.10)	370.0 (14.67)
3 P + E	140.0 (5.51)	275.0 (10.83)	155.0 (6.10)	370.0 (14.67)
3 P + N + E	140.0 (5.51)	275.0 (10.83)	165.0 (6.50)	375.0 (14.76)

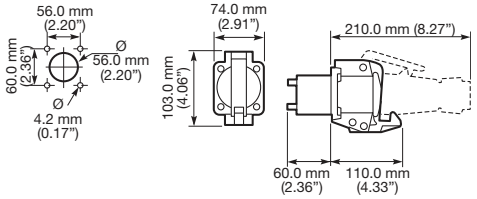
	Dimensions in Millimeters (Inches) A	B	C
2 P + T	80.0 (3.15)	170.0 (6.69)	67.0 (2.64)
3 P + T	80.0 (3.15)	170.0 (6.69)	67.0 (2.64)
3 P + N + T	80.0 (3.15)	195.0 (7.68)	74.0 (2.91)

Mobile Sockets

Can be mounted on panel - 3.0 mm (0.12") thickness maximum



Flush Sockets



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A.T.X.® PRE Series 63 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Applications

- Plugs and sockets are used with stationary or portable electrically operated devices such as:
  - — Welding devices
  - — Lighting systems
  - — Conveyors
  - — Heaters
  - — Motor generator sets
  - — Air conditionings
  - — Compressors
  - — Pumps
- For use in corrosive atmospheres and installations in Zones 1, and 2 and 21 and 22 of oil and gas industry, such as
  - — Refineries
  - — Chemical and petrochemical plants
  - — Pipelines
  - — Onshore and offshore drilling platforms



Plug



Wall Mounting Socket



Wall Mounting Socket Through–Wired

Features

- Positive polarization: only ATX plugs of same style, number of poles and ampere rating may be used with these sockets.
- Interlocked 3-pole or 4-pole Ex de disconnecting on-load switch, with auxiliary early break contact (capacity 2.5 mm^2 / 0.004 in^2 max).
- Plug is mechanically locked in socket when switch is ON.
- Switch operating handle can be padlocked in OFF position (max 4 padlocks).
- Plug cannot be inserted or removed unless switch is in OFF position.

Standard Materials

- Socket: high impact resistance fiberglass reinforced polyester.
- Flap cover and plug: polyamide

ATEX/IECEx Certifications and Compliances

- Certification Type PC63X
- Gas: Zones 1 and 2
  - — Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 G
  - — ATEX/IEC Protection: Ex de IIC
  - — T-Rating: T6 for Ta ≤ +40 °C (+104 °F) and T5 for +40 °C ≤ Ta ≤ +55 °C (+104 °F ≤ Ta ≤ +131 °F)
- Dust: Zones 21 and 22
  - — Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 D
  - — ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: T90 °C (T194 °F)
- Ambient Temperature: -30 °C to +55 °C (-22 °F to +131 °F)
- CE Declaration of Conformity: 50208
- ATEX Certificate: LCIE 02 ATEX 6004
- IEC Certificate: LCIE Ex 99.004
- Other Certifications: GOST
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Ex Standards: EN/IEC 60079-0; 60079-1; 60079-7; 61241-0; 61241-1
- Product Standards: EN/IEC 60309-1, 60309-2
- Other Standards: EN/IEC 60529 (IP), 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type PC63X
- Gas: Zones 1 and 2
- Dust: Zones 21 and 22
- IEC Protection: Ex ed IIC Gb; T6 for Ta ≤ +40 °C (+104 °F) and T5 for +40 °C ≤ Ta ≤ +55 °C (+104 °F ≤ Ta ≤ +131 °F)
- Ambient Temperature: -30 °C to +55 °C (-22 °F to +131 °F)
- Inmetro Certificate: BR230595
- Ingress Protection (solid and liquid): IP66
- Ex Standards: NBR IEC 60079-0; 60079-1; 60079-7
- Other Standards: NBR IEC 60529 (IP)

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Ⓔx II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66



Wall Mounting Socket



Plug

- Standard versions:
  - — Supplied with one M50 cable gland for unarmored cable – Ø 28 to Ø 42 mm (Ø 1.10 to Ø 1.65") and one M25 blanking plug.
  - — Terminal capacity 1 x 35 mm² (0.002 x 0.054 in²).
- Through-wired versions:
  - — Supplied with two M50 cable glands for unarmored cable – Ø 28 to Ø 42 mm (Ø 1.10 to Ø 1.65") and one M25 blanking plug.
  - — Terminal capacity 2 x 35 mm² (0.003 x 0.054 in²).
- One integrated cable entry for unarmored flexible cable – Ø 17.5 to Ø 29 mm (Ø 0.69 to Ø 1.14") for 3P + E versions; Ø 17.5 to Ø 32 mm (Ø 0.69 to Ø 1.26") for 3P + N + E versions.
- Terminals capacity 16 mm² (0.025 in²).

		63 Amps
Main Contacts		
Rated Insulation Voltage	690 Vac	
Rated Operating Voltage	690 Vac	
Rated Operating Current	63 Amp	
Rated Surge Voltage	6 KV	
Switching Capacity		
AC 21 A / AC 22 A	63 Amp	230 Volt to 690 Volt
AC 23 A	15 kW	230 Volt
	22 kW	400 Volt
	30 kW	500 Volt
	18.5 kW	690 Volt
AC 3	11 kW	230 Volt
	18.5 kW	400 Volt
	22 kW	500 Volt
	15 KW	690 Volt
DC 21		–
DC 22		–
DC 23		–
Auxiliary Contacts		
Rated Insulation Voltage	400 Volt	
Rated Operating Voltage	400 Volt	
Rated Operating Current	10 Amp	
Switching Capacity: AC 15	6 Amp	230 Volt
	4 Amp	400 Volt
Others		
Termination (flexible/solid)	35 mm² (0.002 in²)	

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A.T.X.® PRE Series 63 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Catalog Numbering Guide — IECEx Internationally Certified Plugs and Receptacles

PRE | **4** | **63** | **R** | **B** | **A** | **3** | **S**

- **PRE**: IECEx Series: PRE - PRE Series, Zone 1, 2, 21 and 22, ATEX / IEC Certified
- **4**: Pin Configuration: 4 - 3P+E; 5 - 3P+N+E
- **63**: Amps: 63 - 63A
- **R**: Equipment: P - Plug; R - Receptacle (Wall Mounting)
- **B**: Voltage: B - 200 - 250 Vac 50/60 Hz; R - 380 - 415 Vac 50/60 Hz; N - 480 - 500 Vac 50/60 Hz; R1 - 440 - 460 Vac 60 Hz; N1 - 600 - 690 Vac 50/60 Hz
- **A**: Cable Type: A - Armored; U - Unarmored
- **3**: Cable Entry Size: ① 3 - M32; 4 - M40; 5 - M50; 6 - M63
- **S**: Options: S - 316L Stainless Steel; T - Through-wired

Catalog Numbering Guide — NBR IEC Brazilian Certified Plugs and Receptacles

N PRE | **4** | **63** | **R** | **B** | **A** | **3** | **S**

- **N PRE**: NBR IEC Series: PRE - PRE Series, Zone 1, 2, 21 and 22, NBR IEC Certified
- **4**: Pin Configuration: 4 - 3P+E; 5 - 3P+N+E
- **63**: Amps: 63 - 63A
- **R**: Equipment: P - Plug; R - Receptacle (Wall Mounting)
- **B**: Voltage: B - 200 - 250 Vac 50/60 Hz; R - 380 - 415 Vac 50/60 Hz; N - 480 - 500 Vac 50/60 Hz; R1 - 440 - 460 Vac 60 Hz; N1 - 600 - 690 Vac 50/60 Hz
- **A**: Cable Type: A - Armored; U - Unarmored
- **3**: Cable Entry Size: ① 3 - M32; 4 - M40; 5 - M50; 6 - M63
- **S**: Options: S - 316L Stainless Steel; T - Through-wired

LV: Low Voltage

Blue	Red	Black	Red 1	Black 1
200/250 Vac	380/415 Vac	480/500 Vac	440/460 Vac	600/690 Vac

① *With one M5 plugged entry.*

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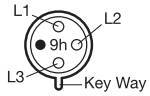
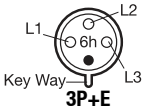
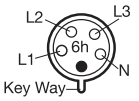
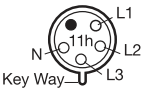
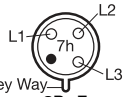
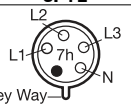
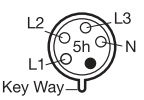
A.T.X.® PRE Series 63 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Standard Versions

Description	Pin Configuration	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR
200/250 Vac 50/60 Hz — Blue					
Wall Socket	 **3P+E**	8.0 (17.64)	26.0 (1586.62)	**PRE463RBU5**	**NPRE463RBU5**
Plug		1.0 (2.20)	7.0 (427.17)	**PRE463PB**	**NPRE463PB**
380/415 Vac 50/60 Hz — Red					
Wall Socket	 **3P+E**	8.0 (17.64)	26.0 (1586.62)	**PRE463RRU5**	**NPRE463RRU5**
Plug		1.0 (2.20)	7.0 (427.17)	**PRE463PR**	**NPRE463PR**
Wall Socket	 **3P+N+E (1)** *(1) 200/346 V – 240/415 Vac 50/60 Hz*	8.0 (17.64)	26.0 (1586.62)	**PRE563RRU5**	**NPRE563RRU5**
Plug		1.0 (2.20)	7.0 (427.17)	**PRE563PR**	**NPRE563PR**
440/460 Vac 60 Hz — Red					
Wall Socket	 **3P+E**	8.0 (17.64)	26.0 (1586.62)	**PRE463RR1U5**	**NPRE463RR1U5**
Plug		1.0 (2.20)	7.0 (427.17)	**PRE463PR1**	**NPRE463PR1**
Wall Socket	 **3P+N+E (2)** *(2) 250/440 V – 265/460 Vac 60 Hz*	8.0 (17.64)	26.0 (1586.62)	**PRE563RR1U5**	**NPRE563RR1U5**
Plug		1.0 (2.20)	7.0 (427.17)	**PRE563PR1**	**NPRE563PR1**
480/500 Vac 50/60 Hz — Black					
Wall Socket	 **3P+E**	8.0 (17.64)	26.0 (1586.62)	**PRE463RNU5**	**NPRE463RNU5**
Plug		1.0 (2.20)	7.0 (427.17)	**PRE463PN**	**NPRE463PN**
Wall Socket	 **3P+N+E (3)** *(3) 277/480 V – 288/500 Vac 50/60 Hz*	8.0 (17.64)	26.0 (1586.62)	**PRE563RNU5**	**NPRE563RNU5**
Plug		1.0 (2.20)	7.0 (427.17)	**PRE563PN**	**NPRE563PN**
600/690 Vac 50/60 Hz — Black					
Wall Socket	 **3P+E**	8.0 (17.64)	26.0 (1586.62)	**PRE463RN1U5**	**NPRE463RN1U5**
Plug		1.0 (2.20)	7.0 (427.17)	**PRE463PN1**	**NPRE463PN1**
Wall Socket	 **3P+N+E (4)** *(4) 347/600 V – 400/690 Vac 50/60 Hz*	8.0 (17.64)	26.0 (1586.62)	**PRE563RN1U5**	**NPRE563RN1U5**
Plug		1.0 (2.20)	7.0 (427.17)	**PRE563PN1**	**NPRE563PN1**

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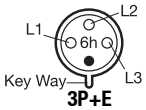
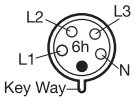
A.T.X.® PRE Series 63 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

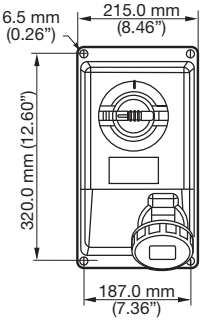
Through-wired Versions

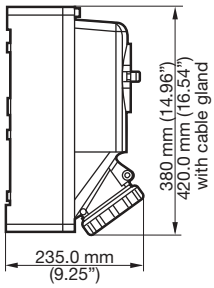
Description	Pin Configuration	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR
380/415 Vac 50/60 Hz — Red					
Wall Socket	 **3P+E**	16.0 (35.27)	110.0 (6712.61)	**PRE463RRU5T**	**NPRE463RRU5T**
Wall Socket	 **3P+N+E (1)**	16.0 (35.27)	110.0 (6712.61)	**PRE563RRU5T**	**NPRE563RRU5T**

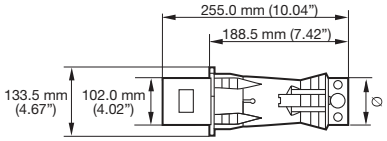
(1) 200/346 V – 240/415 Vac 50/60 Hz

Dimensions

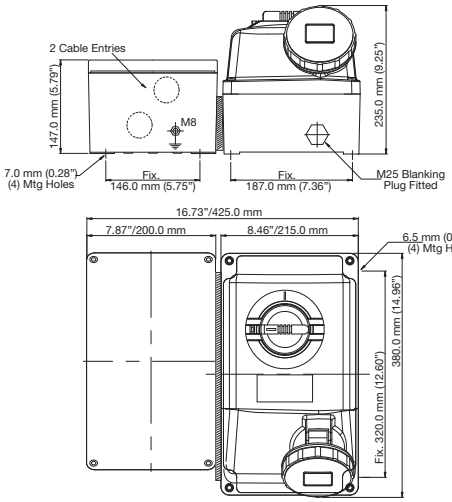
Standard Version







Through–Wired Version



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A.T.X.® PRE Series 125 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Applications

- Plugs and sockets are used with stationary or portable electrically operated devices such as:
  - — Welding devices
  - — Lighting systems
  - — Conveyors
  - — Heaters
  - — Motor generator sets
  - — Air conditioning
  - — Compressors
  - — Pumps
- For use in corrosive atmospheres and installations in Zones 1, and 2 and 21 and 22 of oil and gas industry, such as
  - — Refineries
  - — Chemical and petrochemical plants
  - — Pipelines
  - — Onshore and offshore drilling platforms



Plug



Wall Mounting Socket

Features

- Positive polarization: only ATX plugs of same style, number of poles and ampere rating may be used with these sockets.
- Interlocked 3-pole or 4-pole Ex de disconnecting on-load switch, with auxiliary early break contact – capacity 2.5 mm^2 (0.004 in^2) maximum.
- Plug is mechanically locked in socket when switch is ON.
- Switch operating handle can be padlocked in OFF position (max 4 padlocks).
- Plug cannot be inserted or removed unless switch is in OFF position.

Standard Materials

- Socket: 316L stainless steel
- Flap cover and plug: polyamide

ATEX/IECEx Certifications and Compliances

- Certification Type PC125X
- Gas: Zones 1 and 2
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
  - — ATEX/IEC Protection: Ex de IIC
  - — T-Rating: T6 for Ta ≤ +40 °C (+104 °F) and 5 for ≤ Ta ≤ 55 °C (+131 °F)
- Dust: Zones 21 and 22
  - — Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
  - — ATEX/IEC Protection: Ex tD A21
  - — Surface Temperature: T90 °C (T194 °F)
- Ambient Temperature: -30 °C to +55 °C (-22 °F to +131 °F)
- CE Declaration of Conformity: 50218
- ATEX Certificate: LCIE 99 ATEX 6031
- IEC Certificate: LCIE Ex 99.017
- Other Cetifications: GOST
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10
- Ex Standards: EN/IEC 60079-0; 60079-1; 60079-7; 61241-0; 61241-1
- Product Standards: EN/IEC 60309-1, 60309-2
- Other Standards: EN/IEC 60529 (IP), 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type PC125X
- Gas: Zones 1 and 2
- Dust: Zones 21 and 22
- IEC Protection: Ex de IIC Gb; T6 for -30 °C ≤ Ta ≤ +40 °C (-22 °F ≤ Ta ≤ +104 °F) and T5 for +40 °C ≤ Ta ≤ +55 °C (+104 °F ≤ Ta ≤ +131 °F)
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- Inmetro Certificate: BR230596
- Ingress Protection (solid and liquid): IP66
- Ex Standards: NBR IEC 60079-0; 60079-1; 60079-7
- Other Standards: NBR IEC 60529 (IP)

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IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66



Wall Mounting Socket

- One M63 cable gland for unarmored cable – Ø 36 to Ø 44 mm (Ø 1.42 to Ø 1.73") and one M25 blanking plug.
- Terminal capacity 120 mm² (0.186in²).



Plug

- One integrated cable entry for unarmored flexible cable – Ø 30 to Ø 48 mm (Ø 1.18 to Ø 1.89").
- Terminals capacity 50 mm² (0.078in²).

		160 Amps
Main Contacts		
Rated Insulation Voltage	690 Vac	
Rated Operating Voltage	690 Vac	
Rated Operating Current	125 Amp	
Rated Surge Voltage	8 KV	
Switching Capacity		
AC 21 A / AC 22 A	125 Amp	400 Volt to 690 Volt
AC 23 A	80 kW	400 Volt
	110 kW	500 Volt
	55 kW	690 Volt
AC 3	90 kW	400 Volt
	70 kW	500 Volt
DC 21	125 Amp	220 Volt ①
	125 Amp	440 Volt ①
DC 22	125 Amp	220 Volt ①
	100 Amp	440 Volt ①
DC 23	125 Amp	220 Volt ①
	63 Amp	440 Volt ①
Auxiliary Contacts		
Rated Insulation Voltage	230 Volt	
Rated Operating Voltage	230 Volt	
Rated Operating Current	10 Amp	
Switching Capacity: AC 15	6 Amp	230 Volt
Others		
Termination (flexible/solid)	120 mm² (0.007 in²)	

① *2 contacts connected in series per pole.*

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Inmetro (Portaria nº 179)
IP66

Catalog Numbering Guide — IECEx Internationally Certified Plugs and Receptacles

PRE	4	12	R	R	A	3	T
Series: PRE - PRE Series Zone 1, 2, 21 and 22 ATEX / IEC Certified	Pin Configuration: 4 - 3P+E 5 - 3P+N+E	Amps: 12 - 125A	Equipment: P - Plug R - Receptacle (Wall Mounting)	Voltage: R - 380 - 415 Vac 50/60 Hz N - 480 - 500 Vac 50/60 Hz R1 - 440 - 460 Vac 60 Hz N1 - 600 - 690 Vac 50/60 Hz	Cable Type: A - Armored U - Unarmored	Cable Entry Size: ① 3 - M32 4 - M40 5 - M50 6 - M63	Options: T - Through-wired

Catalog Numbering Guide — NBR IEC Brazilian Certified Plugs and Receptacles

N PRE	4	12	R	R	A	3	T
NBR IEC Series: PRE - PRE Series Zone 1, 2, 21 and 22 NBR IEC Certified	Pin Configuration: 4 - 3P+E 5 - 3P+N+E	Amps: 12 - 125A	Equipment: P - Plug R - Receptacle (Wall Mounting)	Voltage: R - 380 - 415 Vac 50/60 Hz N - 480 - 500 Vac 50/60 Hz R1 - 440 - 460 Vac 60 Hz N1 - 600 - 690 Vac 50/60 Hz	Cable Type: A - Armored U - Unarmored	Cable Entry Size: ① 3 - M32 4 - M40 5 - M50 6 - M63	Options: T - Through-wired

LV: Low Voltage

Red	Black	Red 1	Black 1
380/415 Vac	480/500 Vac	440/460 Vac	600/690 Vac

① *With one M25 plugged entry.*

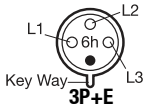
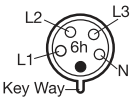
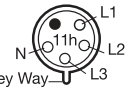
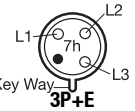
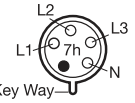
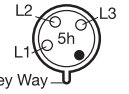
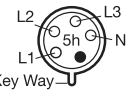
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A.T.X.® PRE Series 125 Amp Plugs and Sockets

Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Description	Pin Configuration	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR
380/415 Vac 50/60Hz — Red					
Wall Socket	 **3P+E**	16.0 (0.63)	70.0 (4271.66)	**PRE412RRU6**	**NPRE412RRU6**
Plug		1.1 (0.04)	13.0 (793.31)	**PRE412PR**	**NPRE412PR**
Wall Socket	 **3P+N+E (1)**	16.0 (0.63)	70.0 (4271.66)	**PRE512RRU6**	**NPRE512RRU6**
Plug		1.1 (0.04)	13.0 (793.31)	**PRE512PR**	**NPRE512PR**
	(1) 200/346 V – 240/415 Vac 50/60 Hz				
440/460 Vac 60 Hz — Red					
Wall Socket	 **3P+E**	16.0 (0.63)	70.0 (4271.66)	**PRE412RR1U6**	**NPRE412RR1U6**
Plug		1.1 (0.04)	13.0 (793.31)	**PRE412PR1**	**NPRE412PR1**
Wall Socket	 **3P+N+E (2)**	16.0 (0.63)	70.0 (4271.66)	**PRE512RR1U6**	**NPRE512RR1U6**
Plug		1.1 (0.04)	13.0 (793.31)	**PRE512PR1**	**NPRE512PR1**
	(2) 250/440 V – 265/460 Vac 60 Hz				
480/500 Vac 50/60 Hz— Black					
Wall Socket	 **3P+E**	16.0 (0.63)	70.0 (4271.66)	**PRE412RNU6**	**NPRE412RNU6**
Plug		1.1 (0.04)	13.0 (793.31)	**PRE412PN**	**NPRE412PN**
Wall Socket	 **3P+N+E (3)**	16.0 (0.63)	70.0 (4271.66)	**PRE512RNU6**	**NPRE512RNU6**
Plug		1.1 (0.04)	13.0 (793.31)	**PRE512PN**	**NPRE512PN**
	(3) 277/480 V – 288/500 Vac 50/60 Hz				
600/690 Vac 50/60 Hz — Black					
Wall Socket	 **3P+E**	16.0 (0.63)	70.0 (4271.66)	**PRE412RN1U6**	**NPRE412RN1U6**
Plug		1.1 (0.04)	13.0 (793.31)	**PRE412PN1**	**NPRE412PN1**
Wall Socket	 **3P+N+E (4)**	16.0 (0.63)	70.0 (4271.66)	**PRE512RN1U6**	**NPRE512RN1U6**
Plug		1.1 (0.04)	13.0 (793.31)	**PRE512PN1**	**NPRE512PN1**
	(4) 347/600 V – 400/690 Vac 50/60 Hz				

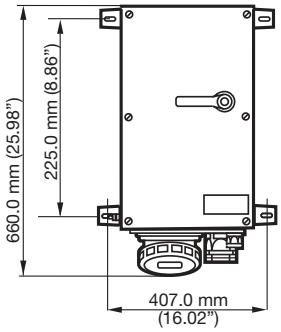
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A.T.X.® PRE Series 125 Amp Plug and Socket Dimensions

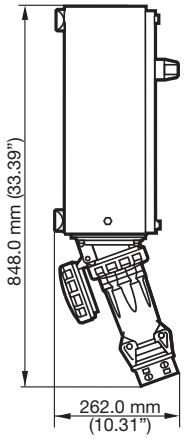
Increased Safety

Dimensions

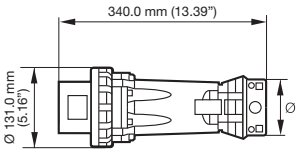
Front



Side



Plug



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A.T.X.® MRE Series 16 and 32 Amp Multiple Socket Outlets

Stationary and Portable. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Applications

- Plugs and sockets are used with portable or stationary electrical equipment such as:
  - — Lighting systems
  - — Conveyors
  - — Heaters
  - — Motor generators
  - — Air conditioning equipment
  - — Compressors
  - — Pumps
- For use in corrosive atmospheres and installations in Zone 1 and 2 and 21 and 22 of the oil and gas industry such as:
  - — Refineries
  - — Chemical plants
  - — Petrochemical plants
  - — Pipelines
  - — Loading docks
  - — Onshore and offshore drilling platforms

Features

- Plug and socket assembly is equipped with a patented silver plated linear switch which allows a total disconnection of power when plug is removed.
- The high voltage contact separation is in a flameproof chamber.
- The automatic electrical disconnection of each phase is contained in a second flameproof chamber.
- Short circuit protection is 20 kA, while normal reference is 10 kA.
- Different voltages are color coded for easy identification.
- The sockets are keyed to accept only ATX plugs (other plugs can not be inserted).
- ATX plugs can be used in non-hazardous sockets.

Standard Materials

- Housing: high impact resistance fiberglass reinforced polyester or 316L stainless steel
- Flush sockets: polyamide

Options

- Customized multiple socket outlets.

ATEX/IECEx Certifications and Compliances

- Certification Type (Flush Socket) PCX/EN
  - — Gas: Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex de IIC
    - – T-Rating: T6 for Ta ≤ +40 °C (+104 °F) and 5 for ≤ Ta ≤ 55 °C (+131 °F)
  - — Dust: Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T68 °C (T154 °F)
  - — Service Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
  - — CE Declaration of Conformity: 5C214
  - — ATEX Certificate: LCIE 02 ATEX 0001U
  - — IEC Certificate: IECEX LCI 07.0012U
  - — Impact Resistance (shock): IK09 (Polyamide)
- Certification Type (Housing) CSPe
  - — Gas, Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e II
    - – T Rating: T6
  - — Dust, Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T75 °C (T167 °F)
  - — Ambient Temperature: -55 °C to 60 °C (-67 °F to 140 °F)
  - — CE Declaration of Conformity: 50284
  - — ATEX Certificate: LCIE 09 ATEX 3032X
  - — IECEx Certificate: IECEx LCI 09.0016X
  - — Impact Resistance (shock): IK10
- Certification Type (Housing) CAe
  - — Gas, Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e II
    - – T Rating: T6 to T3
  - — Dust, Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T80 °C to T95 °C (T176 °F to T203 °F)
  - — Ambient Temperature: -40 °C to 55 °C (-40 °F to 131 °F)
  - — CE Declaration of Conformity: 50235
  - — ATEX Certificate: LCIE 02 ATEX 6248X
  - — IECEx Certificate: IECEx LCI 04.0016
  - — Impact Resistance (shock): IK10
- Certification Type (Housing) JBe
  - — Gas, Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex e II
    - – T Rating: T6 to T2
  - — Dust, Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T80 °C to T290 °C (T176 °F to T554 °F)
  - — Ambient Temperature: -50 °C to 70 °C (-58 °F to 158 °F)
  - — CE Declaration of Conformity: 50232
  - — ATEX Certificate: LCIE 02 ATEX 6118X
  - — IEC Certificate: IEC Ex 02.010X
  - — Impact Resistance (shock): IK10
- Other Cetifications: GOST
- Ingress Protection (solid and liquid): IP66
- Ex Standards: EN / IEC 60079-0; 60079-1; 60079-7; 61241-0; 61241-1
- Product Standards: EN / IEC 60309-1; 60309-2
- Other Standards: EN / IEC 60529 (IP); EN 62262 (IK)



Customized Version



Two Socket Outlet Version



Four Socket Outlet Version



Cable Reel

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A.T.X.® MRE Series 16 and 32 Amp Multiple Socket Outlets

Stationary and Portable. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

NBR IEC Brazilian Certifications and Compliances

- Certification Type (Flush Socket) PCX/EN
  - — Gas: Zones 1 and 2
  - — Dust: Zones 21 and 22
  - — IEC Protection: Ex d IIC T6 Gb, Ex d IIC T5 Gb
  - — Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
  - — Inmetro Certificate: BR230598-U
  - — Ingress Protection (solid and liquid): IP66
  - — Ex Standards: ABNT NBR IEC 60079-0; 60079-1
  - — Other Standards: ABNT NBR IEC 60529 (IP)
- Certification Type (Housing) CSPe
  - — Gas: Zones 1 and 2
  - — Dust: Zones 21 and 22
  - — IEC Protection: Ex e II T6 Gb, Ex de IIC T6 Gb, Ex deia IIC T6 Gb, Ex demb IIC T6 Gb
  - — Ambient Temperature: -55 °C to +60 °C (-67 °F to +140 °F)
  - — Inmetro Certificate: BR230637-X
  - — Ingress Protection (solid and liquid): IP66
  - — Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-7
  - — Other Standards: ABNT NBR IEC 60529 (IP)
- Certification Type (Housing) CAe
  - — Gas: Zones 1 and 2
  - — Dust: Zones 21 and 22
  - — IEC Protection: Ex e ou em Gb II, Ex de ou dem Gb IIC, Ex ia ou ib Gb IIC, Ex eia ou eib Gb IIC, Ex deia ou deib Gb IIC, Ex eiam ou eibm Gb IIC, Ex deiam ou deibm Gb IIC
  - — T Rating: T6 to T3
  - — Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F); -30 °C to +55 °C (-22 °F to +131 °F) (when assembled with CBU)
  - — Inmetro Certificate: BR230421-X
  - — Ingress Protection (solid and liquid): IP66
  - — Ex Standards: ABNT NBR IEC 60079-0; 60079-1; 60079-7; 60079-11; 60079-18
  - — Other Standards: ABNT NBR IEC 60529 (IP)
- Certification Type (Housing) JBe
  - — Gas: Zones 1 and 2
  - — Dust: Zones 21 and 22
  - — IEC Protection: Ex e II Gb, Ex de II Gb, Ex eia ou eib IIC Gb
  - — T Rating: T6 to T5
  - — Ambient Temperature: -40 °C to +70 °C (-40 °F to +158 °F)
  - — Inmetro Certificate: BR230418-X
  - — Ingress Protection (solid and liquid): IP66
  - — Ex Standards: ABNT NBR IEC 60079-0; 60079-7; 60079-11
  - — Other Standards: ABNT NBR IEC 60529 (IP)

Catalog Numbering Guide — IECEx Internationally Certified Plugs and Receptacles

MRE	P	1	2	16	P	T0	K	#
IECEx Series: MRE - MRE Series Zone 1, 2, 21 and 22 ATEX / IEC Certified	Enclosure Material: P - Polyester S - 316L Stainless Steel	Socket Outlets Quantity: 0 1 2 3 4 5 6 7 8	Pin Configuration: 2 - 2P 3 - 2P+E 6 - 3P 4 - 3P+E 5 - 3P+N+E F - Drilling for Socket 2P-3P-2P+E 16A G - Drilling for Socket 3P+E - 3P+N+E 16A J - Drilling for Socket 3P+E - 3P+N+E 32A	Amps: 16 - 16 A 32 - 32 A	Voltage: P - 20-25 Vac 50/60 Hz Y - 100-130 Vac 50/60 Hz B - 200-250 Vac 50/60 Hz R - 380-415 Vac 50/60 Hz	Transformer Power: T0 - None T1 - 100 VA T2 - 160 VA T3 - 250 VA T4 - 400 VA	Primary/ Secondary Voltage: K - 230-400 V / 24 V L - 240-415 V / 24 V M - 230-400 V / 110 V	Options: *Options must be listed alphabetically* H - Portable Unit with Handle: Only available with SS 316L enclosure # - Customized Multiple Socket 6 digit number will be assigned at time of order placement.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Stationary and Portable. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Catalog Numbering Guide — NBR IEC Brazilian Certified Plugs and Receptacles

N MRE
NBR IEC Series:
MRE - MRE Series Zone 1, 2, 21 and 22 NBR IEC Certified

P
Enclosure Material:
P - Polyester
S - 316L Stainless Steel

1
Socket Outlets Quantity:
0
1
2
3
4
5
6
7
8

2
Pin Configuration:
2 - 2P
3 - 2P+E
6 - 3P
4 - 3P+E
5 - 3P+N+E
F - Drilling for Socket 2P-3P-2P+E 16A
G - Drilling for Socket 3P+E - 3P+N+E 16A
J - Drilling for Socket 3P+E - 3P+N+E 32A

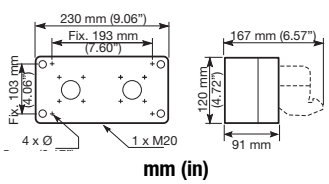
16
Amps:
16 - 16 A
32 - 32 A

P
Voltage:
P - 20-25 Vac 50/60 Hz
Y - 100-130 Vac 50/60 Hz
B - 200-250 Vac 50/60 Hz
R - 380-415 Vac 50/60 Hz

T0
Transformer Power:
T0 - None
T1 - 100 VA
T2 - 160 VA
T3 - 250 VA
T4 - 400 VA

K
Primary/ Secondary Voltage:
K - 230-400 V / 24 V
L - 240-415 V / 24 V
M - 230-400 V / 110 V

#
Options:
Options must be listed alphabetically
H - Portable Unit with Handle: Only available with SS 316L enclosure
- Customized Multiple Socket 6 digit number will be assigned at time of order placement.

Description	Type	Weight kg (lb)	Volume dm³ (in³)	Catalog Number	Pack
Pre-drilled Multiple Sockets in Polyester for 2 Flush Sockets 16 A — Ex de IIC T5 -40 °C to +55 °C (-40 °F to +131 °F)					
Supplied with: 1 x Terminal block 2P+E 6 mm² (0,009 in²); 1 x M20 plastic cable gland for unarmored cable – sealing diameter 6.5 to 14.5 mm (0.26 to 0.57 in).					
Layout 1  **mm (in)**					
Pre-drilled enclosure for 2 flush sockets (not supplied) PRE Series 2P or 2P+E – 16A	CSPe3 PCX/EN	1.3 (2.87)	7 (427)	**MREP2F**	1

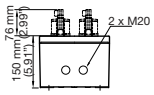
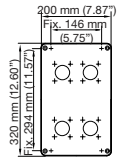
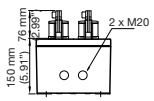
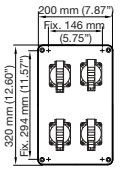
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A.T.X.® MRE Series 16 and 32 Amp Multiple Socket Outlets

Stationary and Portable. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

	Description	Type	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	NBR
Pre-drilled Multiple Sockets in Polyester for 4 Flush Sockets 16A — Ex de IIC T5 -40 °C to +55 °C (-40 °F to +131 °F)						
Supplied with: 1 x Distribution block 4 poles 12 x 4 mm (0.47 x 0.16 in) with cable clamps – 2 x 10 mm² (0.003 x 0.016 in²) max.; 1 x M20 plastic cable gland for unarmored cable – sealing diameter 6.5 to 14.5 mm (0.26 to 0.57 in); 1 x M20 plastic blanking plug.						
Layout 2						
	Pre-drilled enclosure for 4 flush sockets (not supplied) PRE Series 2P or 2P+E – 16A	CAe2 PCX/EN	4 (8.82)	15 (915)	**MREP4F**	**NMREP4F**
	Pre-drilled enclosure for 4 flush sockets (not supplied) PRE Series 3P+E or 3P+N+E – 16A	CAe2 PCX/EN	4 (8.82)	15 (915)	**MREP4G**	**NMREP4G**
	Mounting adaptor to install 2P or 2P+E – 16A flush sockets with pre-drilled enclosure MREP4G	—	0.1 (0.22)	0.7 (43)	**096496**	**N096496**
	Blanking plate to install Unicode2 Series component diameter 30 mm (Push button, Pilot light or blanking plug) on 096496	—	0.1 (0.22)	0.7 (43)	**097494**	**N097494**
	Blanking plug diameter 30 mm	—	0.1 (0.22)	0.18 (11)	**UBP**	**NUBP**
Combined Units in Polyester with 4 Flush Sockets 16A — Ex de IIC T5 -40 °C to +55 °C (-40 °F to +131 °F)						
Supplied with: 1 x Distribution block 4 poles 12 x 4 mm (0.47 x 0.16 in) with cable clamps – 2 x 10 mm² (0.003 x 0.016 in²) max.;1 x M20 plastic cable gland for unarmored cable – sealing diameter 6.5 to 14.5 mm (0.26 to 0.57 in); 1 x M20 plastic blanking plug.						
Layout 3						
	4 flush sockets 2P+E 16 A 20/25 Vac	CAe2 PCX/EN	5 (11.02)	25 (1526)	**MREP4316P**	**NMREP4316P**
	4 flush sockets 2P+E 16 A 200/250 Vac	CAe2 PCX/EN	5 (11.02)	25 (1526)	**MREP4316B**	**NMREP4316B**

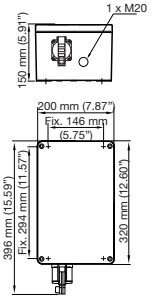
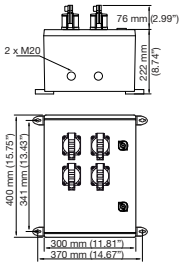
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A.T.X.® MRE Series 16 and 32 Amp Multiple Socket Outlets

Stationary and Portable. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK10

NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Description	Type	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR
Combined Units in Polyester with 1 Flush Socket 16 A — Ex de IIC T3 -40 °C to +55 °C (-40 °F to +131 °F)					
Supplied with: 1 x Transformer 230-400 V / 24 V 250 VA; 2 x Fuse carriers 14 x 51 for primary protection; 2 x Fuse carriers 14 x 51 for secondary protection; 1 x Flush socket 2P+E 16 A 24 Vac (PRE316FP); 1 x M20 plastic cable gland for unarmored cable – sealing diameter 6.5 to 14.5 mm (0.26 to 0.57 in).					
Layout 4					
 1 flush socket 2P+E 16 A 20/25 Vac and transformer 230-400 V/24 V 250 VA	CAe2 PCX/EN	12 (26.46)	25 (1526)	**MREP1316PT3K**	**NMREP1316PT3K**
Combined Units in Polyester with 4 Flush Sockets 16 A — Ex de IIC T3 -40 °C to +55 °C (-40 °F to +131 °F)					
Supplied with: 1 x Transformer 230-400 V / 24 V 400 VA ;2 x Fuse carriers 14 x 51 for primary protection; 2 x Fuse carriers 14 x 51 for secondary protection; 4 x Flush sockets 2P+E 16 A 24 Vac (PRE316FP); 1 x M20 plastic cable gland for unarmored cable – sealing diameter 6.5 to 14.5 mm (0.26 to 0.57 in); 1 x M20 plastic blanking plug.					
Layout 5					
 4 flush sockets 2P+E 16 A 20/25 Vac and transformer 230-400 V/24 V 400 VA	CAe6 PCX/EN	15 (33.07)	36 (2197)	**MREP4316PT4K**	**NMREP4316PT4K**

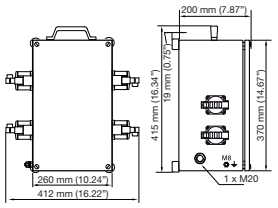
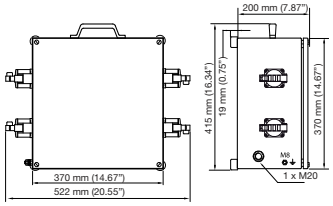
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A.T.X.® MRE Series 16 and 32 Amp Multiple Socket Outlets

Stationary and Portable. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66 - IK10

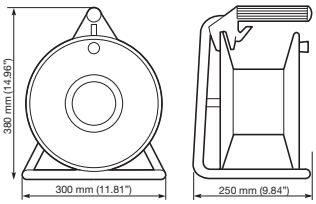
NBR:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Inmetro (Portaria nº 179)
IP66

Description	Type	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx	Catalog Number NBR
Portable Combined Units in 316L Stainless Steel with 4 Flush Sockets 16 A — Ex de IIC T3 -40 °C to +55 °C (-40 °F to +131 °F)					
Supplied with: 1 x Transformer; 2 x Fuse carriers 14 x 51 for primary protection; 2 x Fuse carriers 14 x 51 for secondary protection; 4 x Flush sockets 2P+E 16 A 24 V (PRE316FP); 1 x M20 cable gland for unarmored cable – sealing diameter 6.5 to 14.5 mm (0.26 to 0.57 in).					
Layout 6 mm (in) 					
250 VA Portable Unit: Ex de IIC T3 -40 °C to +55 °C (-40 °F to +131 °F) 4 flush sockets 2P+E 16 A 20/25 Vac and transformer 230-400 V / 24 V 250 VA	JBe47 PCX/EN	19 (41.89)	30 (1831)	**MRES4316PT3KH**	**NMRES4316PT3KH**
Layout 7 mm (in) 					
400 VA Portable Unit: Ex de IIC T2 -40 °C to +55 °C (-40 °F to +131 °F) or Ex de IIC T3 -40 °C to +40 °C (-40 °F to +104 °F) 4 flush sockets 2P+E 16 A 20/25 Vac and transformer 230-400 V/24 V 400 VA	JBe55 PCX/EN	23 (50.71)	42 (2563)	**MRES4316PT4KH**	**NMRES4316PT4KH**

Cable Reel

Polyamide reel: Reel capacity: 40 meters (131 ft) of 3 x 2.5 mm² (0.005 x 0.004 in²) flexible cable; Handle with drum brake

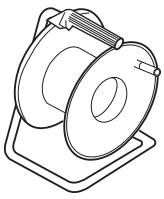
Layout 8 mm (in)



Cable reel	2.5 (5.51)	32 (1953)	**097499**	**N097499**

Cable reel is used for carrying and storing of the electrical lead.
The electrical lead must be completely removed from the cable reel before use.

Cable Reel



Electrical lead — not supplied



Mobile Socket **Plug**

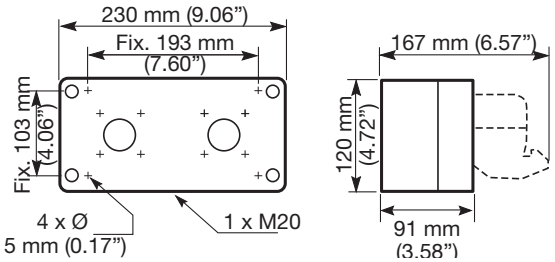
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A.T.X.® MRE Series 16 and 32 Amp Multiple Socket Outlet Dimensions

Stationary and Portable. Increased Safety

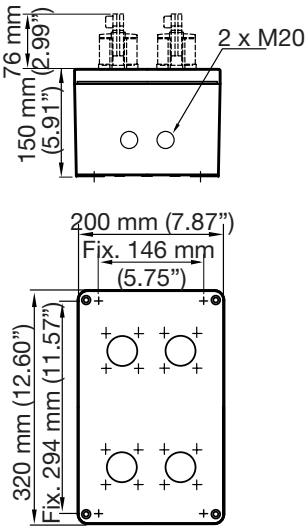
Polyester Enclosure Dimensions in Millimeters (Inches)

Layout 1

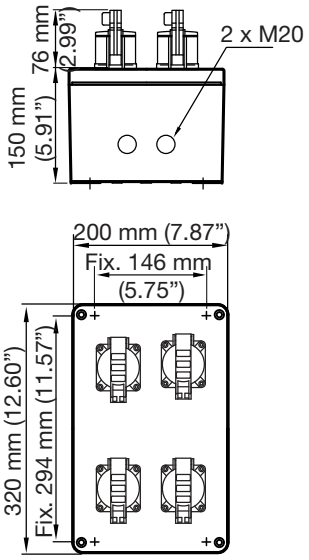


Layout 2

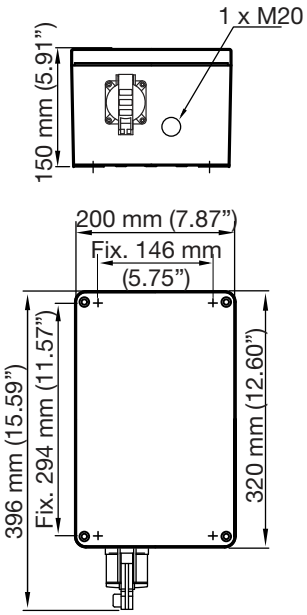
(Flush Sockets Not Supplied)



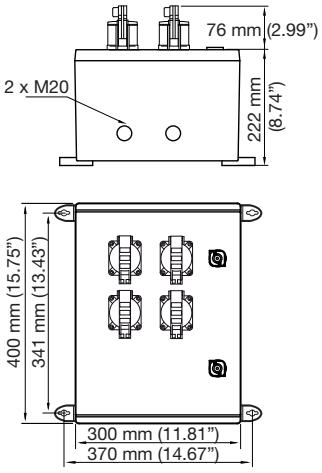
Layout 3



Layout 4



Layout 5



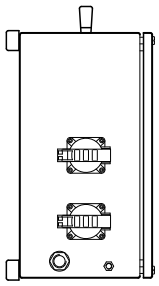
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A.T.X.® MRE Series 16 and 32 Amp Multiple Socket Outlet Dimensions

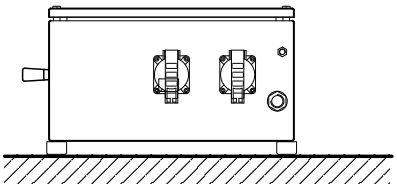
Stationary and Portable. Increased Safety

316L Stainless Steel Enclosure Dimensions in Millimeters (Inches)

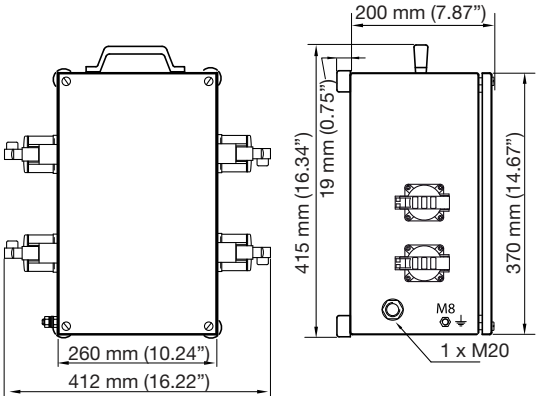
Position for Transportation



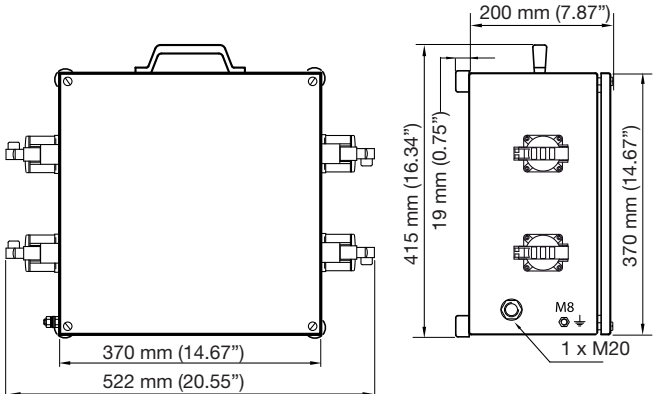
Position for Use



Layout 6

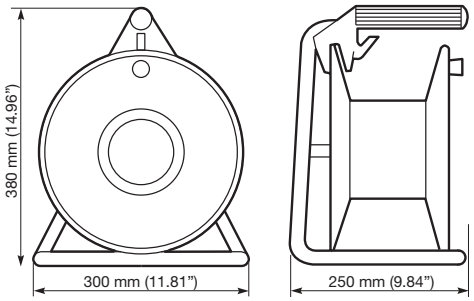


Layout 7



Cable Reel Dimensions in Millimeters (Inches)

Layout 8



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LIGHTING

Corrosive elements. Combustible dusts. Flammable gases and vapors. For proper illumination in extreme conditions, you need a company that pushes safety to the extreme. Nutsteel has expanded the boundaries of technology, efficiency and performance to ensure your lighting stays on – and safe. Because failure just isn't an option.







LIGHTING

Lighting

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
NEC/CEC Enclosed and Gasketed Class/Zone and/or IEC Zone 2 Rated — Area — LED					
Mercmaster™ LED Series Luminaires	420	X	X		X
NEC/CEC Enclosed and Gasketed Class/Zone and ATEX/IEC Rated — Floodlight — LED					
Areamaster LED Flood/High Bay Floodlights	440	X	X		X
ATEX/IEC/NBR IEC Increased Safety/Flameproof — Bulkhead — LED					
ATX FDBAES LED Series Self–Contained Emergency	449			X	X
ATX FNES LED Series Self–Contained Emergency Lighting with Self–Test System	454			X	X
NBR IEC Zone 2 Rated — Area — HID					
Nutsteel NR850–N Series Luminaires	457				X
Nutsteel NN850–N Series Luminaires	467				X
Nutsteel NN800–N Series Luminaires	477				X
ATEX/IEC/NBR IEC Zone 1 Rated — Area — HID					
Nutsteel NE850 Series Luminaires	485				X
ATEX/IEC Zone 2 Rated — Floodlight — HID					
ATX Areamaster ATEX PN Series Floodlights	493			X	X
NBR IEC IP65 Rated — Floodlight — HID					
Nutsteel NT450 Series Floodlights	499				X
Nutsteel NT950 Series Floodllights	502				X
Nutsteel NT400 Series Floodllights	503				X
Nutsteel NT410 Series Long Range Floodlights	505				X
ATEX/IEC/NBR IEC Zone 1 Rated — Floodlight — HID					
ATX PC Series Floodlights	507			X	X
Nutsteel NE450 Series Floodlights	512				X
Nutsteel NE400 Series Floodlights	517				X
Industrial Lighting — Area — HID					
Nutsteel NT850–N Series Luminaires	520				X
Nutsteel NT800–N Series Luminaires	531				X



LED Mercmaster



LED Areamaster



FDBAES



FNES



NR/NN850



NN800



NE850



PN



NT450



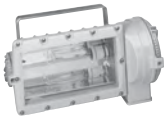
NT950



NT400



NT410



PC



NE450



NE400



NT850



NT800

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Lighting

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
Industrial Lighting — Area — Roadway — HID					
Nutsteel NT952 Series Outdoor Fixtures	539				X
Nutsteel NT951 Series Outdoor Fixtures	540				X
General Lighting — Area — High Bay — HID					
Nutsteel NT350A Series Luminaires	541				X
Nutsteel NT350A–Y Series Luminaires	547				X
ATEX/IEC/NBR IEC Zone 2 Rated — Area — Fluorescent					
ATX FN Series Heavy Duty Nonmetallic Fluorescent Luminaires	550			X	X
Nutsteel NN850–N Series Luminaires	557				X
ATEX/IEC/NBR IEC Zone 2 Rated — Area — Recessed Fluorescent					
ATX RE Series Recessed and Surface Mounting Fluorescent Luminaires	563			X	X
ATEX/IEC/NBR IEC Zone 1 Rated — Area — Fluorescent					
ATX FD Series Cylindrical Fluorescent Luminaires	572			X	X
ATX FE Series Nonmetallic Fluorescent Luminaires	579				X
ATEX/IEC/NBR IEC Zone 1 Rated — Emergency — Fluorescent					
ATX FDES Series Self–Contained Emergency	593			X	X
Nutsteel NE851 Series Emergency Luminaires	597				X
Industrial Lighting — Area — Architectural — Fluorescent					
Nutsteel NT850–N Series Luminaires	603				X
NBR IEC IP65 Rated — Area — Incandescent					
Nutsteel NT700 Series Industrial Luminaires	609				X
ATEX/IEC/NBR IEC Zone 2 Rated — Emergency — Incandescent					
ATX ELS Series Self–Contained Emergency Lighting Unit	610			X	X
ATEX/IEC/NBR IEC Increased Safety/Flameproof — Bulkhead — Incandescent/HID					
ATX HBD Series Bulkhead Luminaires	612			X	X
ATX HBN Series Round Bulkhead Luminaires	616			X	X
ATX HBDC Series Cylindrical Bulkhead Luminaires	618			X	X



NT952



NT951



NT350A/NT350A–Y



FN



NN850



RE



FD



FE



FDES



NE851



NT850



NT700



ELS



HBDO



HBN



HBDC

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Lighting

Description	Page	NEC	CEC	ATEX/ IEC	NBR IEC
ATEX/IEC/NBR IEC Zone 1 Rated — Portable — Incandescent/Halogen					
ATX TCH Series Safety Flashlights	622			X	X
NBR IEC Zone 1 Rated — Area — Mixed					
Nutsteel NE800 Series Luminaires	625				X
NBR IEC Zone 1 Rated — Portable — Mixed					
Nutsteel NE500 Series Handlamps	632				X
ATEX/IEC(Ex)/NBR IEC Zone 1 Rated — Visual Signal					
ATX SBDO Series Signaling and Lighting Bulkheads	636			X	X
ATX SBDS Series Beacon Lighting Units	638			X	X
ATX SBDB Series Beacon and Strobe Lighting Units	640			X	X
ATX SBDC Series Strobe Lighting and Static Triple Indicator	644			X	X
Labels for Emergency Lighting Units					
ATX Self–Adhesive Signaling Labels for Emergency Lighting Units	647			X	X
Ordinary Location — Flexible Fixture Hangers					
Nutsteel NTSUS2 Series Articulated Mount	648				X
Nutsteel NTSUS1 Series Anti–Vibration Mount	649				X
Temporary Lighting					
Nutsteel NT500 Series Portable Luminaires	650				X



TCH



NE800



NE500



SBDO



SBDS



SBDB



SBDC



Etiquetas



NTSUS1



NTSUS2



NT500

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEx:
Zone 2 and 22
Ⓔx II 2 GD
IP66/67

NBR IEC:
Zone 2 and 22
Ex nA IIC Gc
Ex tc IIIC Dc
IP66

Applications

- Enclosed and gasketed fixtures suitable for use in:
  - — Marine and wet locations
  - — A wide range of industrial, chemical processing and other areas where flammable gases and vapors are present
  - — Areas of low clearance, low ceiling heights or where fixture weights must be minimized
  - — Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
  - — Pulp and paper mills
  - — Processing plants
  - — Chemical plants
  - — Oil refineries
  - — Foundries
  - — Manufacturing plants
  - — Storage areas
  - — Waste and sewage treatment
  - — Parking garages
  - — Other areas where dust, water, dirt and rough usage are a problem



Features

- Compact light weight low profile design is suited for low mounting heights.
- Modular design allows scores of fixture component combinations to meet installation needs. Uses same mounting hoods as Mercmaster III.
- Fixture housing and mounting hoods are copperfree cast aluminum with baked epoxy finish. All exposed hardware is stainless steel.
- Accommodates a wide range of voltages.
- Ambient temperatures:
  - — 70 W to 100 W equivalent: -40 ˚C to +65 ˚C (-40 ˚F to +149 ˚F)
  - — 150 W to 175 W equivalent: -40 ˚C to +55 ˚C (-40 ˚F to +131 ˚F)
  - — 250 W equivalent: -40 ˚C to +50 ˚C (-40 ˚F to +122 ˚F)
- Electrical: 120-277 Vac, 50/60 Hz; 347-480 Vac, 50/60 Hz, Volts +/- 10%
- Pole terminal block: 1 x 8-24 AWG; 1 x 0.75 to 6 mm^2 (0.0012 to 0.0093 in^2).
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360º compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see Fixture Unit — Electrical Specification).
- NPT and metric threads standard.
- NEMA Type V light distribution is standard.
  - — Type V distribution is required is areas where sufficient, evenly distributed light is necessary. It produces a circular distribution that has the same intensity at all angles.
- NEMA Type I light distribution is available as an option for select NEC/CEC certified fixtures.
  - — Type I distribution is the perfect lighting for walkways, Type I distribution is perfect for lighting walkways, catwalks or anyplace where a narrow beam of light is required.
- For ATEX/IECEx rated fixtures, ballast bodies and mounting hoods must be purchased separately.

Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate

Standard Finishes

- Mounting hoods, bodies and guards: baked gray epoxy-clad finish, electrostatically applied for complete uniform protection

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 1598A, UL 8750, UL 844
- CSA Standard: C22.2 No. 250.0, C22.2 No. 137
- cCSAus Certified: 065182

ATEX/IECEx Certifications and Compliances

- ATEX
  - — Gas: Zone 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 3 G
    - – ATEX Protection: Ex nA IIC Gc
    - – T Rating:
      - 70 W and 100 W equivalent: T4 [+40 ºC(+104 ºF)], T4 (131 ˚F/55 ˚C), T3 [+65 ˚C (+149 ˚F)]
      - 150 W to 175 W equivalent: T4 [+40 ºC(+104 ºF)], T4 [+ 55 ˚C (+131 ˚F)]
      - 250 W equivalent: T4 [+40 ºC (+104 ºF)], T4 [+50 ˚C (+122 ˚F)]
  - — Dust: Zone 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 3 D
    - – ATEX Protection: Ex tc IIIc Dc
    - – Surface Temperature: T92 ºC (T197.6 ºF)
    - – Ambient Temperature:
      - 70 W and 100 W equivalent: -40 ˚C to +65 ˚C (-40 ˚F to +149 ˚F)
      - 150 W to 175 W equivalent: -40 ˚C to +55 ˚C (-40 ˚F to +131 ˚F)
      - 250 W equivalent: -40 ˚C to +50 ˚C (-40 ˚F to +122 ˚F)
    - – ATEX Certificate: LCIE II ATEX 1008/01
    - – Index of Protection: IP66

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NEC/CEC:	NEC/CEC:	ATEX/IECEx:	NBR IEC:
Class I, Division 2, Groups A, B, C, D	*Simultaneous Exposure*	*Zone 2 and 22*	*Zone 2 and 22*
Class I, Zone 2, Group IIC	*Type 3R, 4X*	*Ⓔx II 2 GD*	*Ex nA IIC Gc*
Class II, Division 1, Group E, F, G	*IP66/67*	*IP66/67*	*Ex tc IIIC Dc*
Class II, Division 2, Group F, G	*Suitable for Use in Wet Locations*		*IP66*
Class III	*Marine Outside Type (Salt Water)*		

- IECEx
  - — Gas: Zone 2
    - – IEC Protection: Ex nA IIC Gc
    - – T Rating:
      - 70 W and 100 W equivalent: T4 [+40 ºC (+104 ºF)], T4 [+ 55 ˚C (+131 ˚F)], T3 [+65 ˚C (+149 ˚F)]
      - 150 W to 175 W equivalent: T4 [+40 ºC (+104 ºF)], T4 [+ 55 ˚C (+131 ˚F)]
      - 250 W equivalent: T4 [+40 ºC (+104 ºF)], T4 [+50 ˚C (+122 ˚F)
  - — Dust: Zone 22
    - – IEC Protection: Ex tc IIIc Dc
    - – Surface Temperature: T92 ºC (T197.6 ºF)
    - – Ambient Temperature:
      - 70 W and 100 W equivalent: -40 ˚C to +65 ˚C (-40 ˚F to +149 ˚F)
      - 150 W to 175 W equivalent: -40 ˚C to +55 ˚C (-40 ˚F to +131 ˚F)
      - 250 W equivalent: -40 ˚C to +50 ˚C (-40 ˚F to 122 ˚F)
    - – IECEx Certificate: IECEx LCI II.0058
    - – Index of Protection: IP66
- Ex Standards: IEC 60079-0; 60079-15; 60079-31

NBR IEC Brazilian Certifications and Compliances

- Certification Type: MLEDNA
  - — Gas: Zone 2
    - – IEC Marking: Ex nA IIC Gc
    - – T Rating: T5/T6
  - — Dust: Zone 22
    - – IEC Marking: Ex tc IIIC Dc
    - – Surface Temperature: T92°C (T197.6°F)
- Ambient Temperature: -40 °C to +55 °C (-4 °F to +131 °F)
- Ingress Protection (solid and liquid): IP66
- INMETRO Certificate: BVC 12.1522
- Ex Standards: ABNT NBR IEC 60079-0, ABNT NBR IEC 60079-15, ABNT NBR IEC 60079-31
- Other Standards: ABNT NBR IEC 60529

NEC/CEC Related Products

- NEC, Class I, Division 2 photocells for classified use are available, see *PCD2 Series*.
  - — Mounting hoods with photocontrols are not rated IP66/67.

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:	NEC/CEC:	ATEX/IECEx:	NBR IEC:
Class I, Division 2, Groups A, B, C, D	Simultaneous Exposure	Zone 2 and 22	Zone 2 and 22
Class I, Zone 2, Group IIC	Type 3R, 4X	Ⓔx II 2 GD	Ex nA IIC Gc
Class II, Division 1, Group E, F, G	IP66/67	IP66/67	Ex tc IIIC Dc
Class II, Division 2, Group F, G	Suitable for Use in Wet Locations		IP66
Class III	Marine Outside Type (Salt Water)		

Illustrated Features



Heatsink
Reliable heat transfer via the cast, epoxy powder coat aluminum body. Provides maximum heat dissipation from the LED assembly to the outside environment.

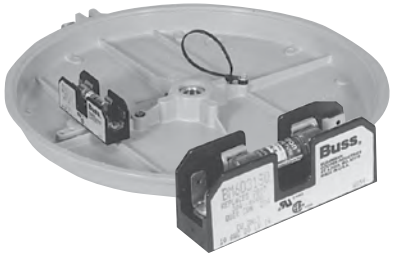


Driver Assembly
Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Modular Plug between LED and driver.



LED Chamber
Protected by polycarbonate lens, allows for easy maintenance access.



Fuses ①
Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Photocell ①
Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.

Terminal Blocks (Zone 2)
A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24AWG, 0.75 to 6 mm^2 (0.0012 to 0.0093 in^2)

Epoxy Finish
Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Electrical Protection
Ground wire provided to bond mounting hood to ballast housing.

Safety
Rounded heatsink edges prevent possible injury during installation.



Cooler Operating Cone Hood
Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.

Mounting Hood and Globe Gaskets
Silicone rubber gaskets seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.



"Safety" High Hinge
Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.

Stainless Steel Latch Assembly
Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.



① Fuses and photocells are available on the NEC/CEC versions only. Not for use in ATEX/IEC or NBR IEC governed locations.

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEx:
Zone 2 and 22
Ex II 2 GD
IP66/67

NBR IEC:
Zone 2 and 22
Ex nA IIC Gc
Ex tc IIIC Dc
IP66

Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide — NEC/CEC Certified Mercmaster LED

MLEDN	A	17	2	P	5	BU	H1
MLEDN - NEC/CEC Certified Mercmaster LED Series	Mounting: A - Pendant C - Ceiling ① D - Pendant Cone R - 90º Stanchion S - 25º Stanchion W - Wall	Light Level Equivalent: 70 - 70 W HPS/PSMH 10 - 100 W HPS/PSMH 15 - 150 W HPS/PSMH 17 - 175 W PSMH ② 25 - 250 W HPS/PSMH	Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion 6 - Metric M20	Optical Assembly: P - Polycarbonate Globe	Light Distribution: 1 - NEMA Type I Elliptical (100 W HPS and 175 W PSMH Only) 5 - NEMA Type V Symmetrical	Voltage: BU - Universal Voltages 120-277 Vac, 50/60 Hz BH - 347-480 Vac, 50/60 Hz	Options: D - Diffused Globe F - Fusing ③ H1 - Photocontrol 120 V ④ H2 - Photocontrol 208 V ④ H3 - Photocontrol 240 V ④ H4 - Photocontrol 277 V ④

Catalog Numbering Guide — NBR IEC Certified Mercmaster LED

NMLEDNA	—	17	—	P	5	BU	D
N MLEDNA - NBR IEC Certified Mercmaster LED Series	Mounting: A - Pendant C - Ceiling D - Pendant Cone R - 90º Stanchion S - 25º Stanchion W - Wall	Light Level Equivalent: 70 - 70 W HPS/PSMH 10 - 100 W HPS/PSMH 15 - 150 W HPS/PSMH 17 - 175 W PSMH ②	Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion 6 - Metric M20	Optical Assembly: P - Polycarbonate Globe	Light Distribution: 5 - NEMA Type V Symmetrical	Voltage: BU - Universal Voltages 120-277 Vac, 50/60 Hz	Options: D - Diffused Globe

Catalog Numbering Guide — ATEX/IECEx Certified Mercmaster LED ⑤

MLEDNA	—	17	—	P	5	BU	D
MLEDNA - ATEX/IECEx Certified Mercmaster LED Series	Mounting: ATEX/IECEx version is not available as a complete fixture *(not sold with mounting hood)*	Light Level Equivalent: 70 - 70 W HPS/PSMH 10 - 100 W HPS/PSMH 15 - 150 W HPS/PSMH 17 - 175 W PSMH ②	Hub Size: ATEX/IECEx version is not available as a complete fixture *(hub size does not apply)*	Optical Assembly: P - Polycarbonate Globe	Light Distribution: 5 - NEMA Type V Symmetrical	Voltage: BU - Universal Voltages 120-277 Vac, 50/60 Hz	Options: D - Diffused Globe

① Ceiling mount luminaries are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.
② 175 W Pulse Start Metal Halide only. Does not have a High Pressure Sodium equivalent.
③ Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.
④ Luminaires with photocontrol are not rated IP66/67 or marine outside type (salt water).
⑤ For ATEX/IECEx rated fixtures, ballast bodies and mounting hoods must be purchased separately.

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEx:
Zone 2 and 22
Ⓔx II 2 GD
IP66/67

NBR IEC:
Zone 2 and 22
Ex nA IIC Gc
Ex tc IIIC Dc
IP66

Technical Data

Lamp				NEC/CEC						ATEX/IECEx and NBR IEC	
				Gas		Dust		Gas/Dust	Gas	Dust	
Light Level Equivalent to HID	Type	Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	Class I, Division 2 ①	Groups	Class I, Zone 2, AEx nA IIC, Ex nA IIC	Class II, Division 1 and 2 ②	Groups	Simultaneous ① Class I, Division 2/ Class II, Division 1	Ex II 3G ① nA	Ex II 3D ② Ex tc IIIC
70 Watt NEMA Type V	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4	T4	T92°C (T197.6°F) DC
		55 (131)	75 (167)	T4		T4	T6		T4	T4	
		65 (143)	90 (194)	T3C		T3	T6		T3C	T4	
100 Watt NEMA Type V	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4	T4	T92°C (T197.6°F) DC
		55 (131)	75 (167)	T4		T4	T6		T4	T4	
		65 (143)	90 (194)	T3C		T3	T6		T3C	T4	
100 Watt NEMA Type I ③	LED	40 (104)	60 (140)	T4	A, B, C, D	T4	—	E, F, G	—	—	—
		75 (167)	75 (167)	T3C		T3	—		—	—	
		90 (194)	90 (194)	T3C		T3	—		—	—	—
150 Watt NEMA Type V	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4	T6	T92°C (T197.6°F) DC IP66
		55 (131)	75 (167)	T4		T4	T6		T4	T6	
175 Watt NEMA Type V	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4	T6	T92°C (T197.6°F) DC IP66
		55 (131)	75 (167)	T4		T4	T6		T4	T6	
175 Watt NEMA Type I ③	LED	40 (104)	60 (140)	T4	A, B, C, D	T4	T5	E, F, G	T4	—	—
		55 (131)	75 (167)	T3C		T3	T5		T3C	—	
250 Watt NEMA Type V ③	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4A	—	—
		50 (122)	75 (167)	T4		T4	T6		T4	—	

"T" Numbers Represent the Maximum Internal Temperature ① or Maximum Surface Temperature ②

	NEC/CEC															
"T" #	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351-450 (664-842)	326-350 (619-662)	301-325 (574-617)	281-300 (538-572)	261-280 (502-536)	231-260 (448-500)	216-230 (421-446)	201-215 (394-419)	181-200 (358-392)	166-180 (331-356)	161-165 (322-329)	136-160 (277-320)	121-135 (250-275)	101-120 (214-248)	86-100 (187-212)	85 (185)

	ATEX/IECEx and NBR IEC					
"T" #	T1	T2	T3	T4	T5	T6
Temp. Range °C (°F)	301-450 (547-842)	201-300 (394-572)	136-200 (277-392)	101-135 (214-275)	86-100 (187-212)	85 (185)

① T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.
② T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.
③ Lamp type is not certified for use in ATEC/IEC or NBR IEC governed locations.

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEx:
Zone 2 and 22
Ⓔx II 2 GD
IP66/67

NBR IEC:
Zone 2 and 22
Ex nA IIC Gc
Ex tc IIIC Dc
IP66

Lamp Comparison Chart

Lamp Data	Line Current Amps	Input Power	Lumens	CRI	Lamp Life (Hours)	Color Temp CCT
NEMA Type V						
MLEDN70	.31 @ 120 V	35	2300	70	60,000+	5650
	.17 @ 277 V	33				
	.24 @ 347 V	34				
	.11 @ 480 V	32				
MLEDN100	.41 @ 120 V	47.5	3450	70	60,000+	5650
	.20 @ 277 V	46				
	.25 @ 347 V	42				
	.12 @ 480 V	44				
MLEDN150	.53 @ 120 V	61	4850	70	60,000+	5650
	.25 @ 277 V	62				
	.29 @ 347 V	62				
	.14 @ 480 V	64				
MLEDN175	.63 @ 120 V	74	6076	70	60,000+	5650
	.28 @ 277 V	72				
	.25 @ 347 V	86				
	.16 @ 480 V	88				
MLEDN250 ①	.83 @ 120 V	95.5	9455	70	60,000+	5650
	.36 @ 277 V	92				
	.45 @ 347 V	96				
	.31 @ 480 V	95				
NEMA Type I						
MLEDN100 ①	.41 @ 120 V	47.5	2900	70	60,000+	5650
	.20 @ 277 V	46				
	.25 @ 347 V	47.5				
	.12 @ 480 V	46				
MLEDN175 ①	.61 @ 120 V	70	6200	70	60,000+	5650
	.28 @ 277 V	69				
	.24 @ 347 V	70				
	.16 @ 480 V	69				

Mercmaster LED Ballast and Mounting Hood Weights

Description	Weight kg (lb)
Fixture Unit (Ballast Housing)	8.8 (19.4)
Pendant Mounting Hood	1.0 (2.25)
Pendant Cone Mounting Hood	1.1 (2.50)
Ceiling Mounting Hood	1.4 (3.00)
Wall Mounting Hood	1.8 (4.00)
25° Stanchion Mounting Hood	1.5 (3.25)
90° Stanchion Mounting Hood	1.7 (3.75)

① *Lamp type is not certified for use in ATEC/IEC or NBR IEC governed locations.*

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

	LED Wattage BU/BH	Lamp Wattage Equivalent	NEMA Type	Hub Size	Conformance	NEC/CEC Catalog Numbers ②③④⑤
Pendant — One Hub, Rigid Mounting						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNA702P5**
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNA102P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	3/4	NEC/CEC	**MLEDNA102P1** ①
	61/62 W	150 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNA152P5**
	74/72 W	175 W PSMH	Type V	3/4	NEC/CEC	**MLEDNA172P5**
	70/64 W	175 W PSMH	Type I	3/4	NEC/CEC	**MLEDNA172P1** ①
	95.5/92 W	250 W HPS/MH	Type V	3/4	NEC/CEC	**MLEDNA252P5**
	35/33 W	70 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNA703P5**
	47.5/46 W	100 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNA103P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	1	NEC/CEC	**MLEDNA103P1** ①
	61/62 W	150 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNA153P5**
	74/72 W	175 W PSMH	Type V	1	NEC/CEC	**MLEDNA173P5**
	70/64 W	175 W PSMH	Type I	1	NEC/CEC	**MLEDNA173P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNA253P5**
Pendant Cone — One Hub, Rigid Mounting						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDND702P5**
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDND102P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	3/4	NEC/CEC	**MLEDND102P1** ①
	61/62 W	150 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDND152P5**
	74/72 W	175 W PSMH	Type V	3/4	NEC/CEC	**MLEDND172P5**
	70/64 W	175 W PSMH	Type I	3/4	NEC/CEC	**MLEDND172P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDND252P5**
	35/33 W	70 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDND703P5**
	47.5/46 W	100 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDND103P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	1	NEC/CEC	**MLEDND103P1** ①
	61/62 W	150 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDND153P5**
	74/72 W	175 W PSMH	Type V	1	NEC/CEC	**MLEDND173P5**
	70/64 W	175 W PSMH	Type I	1	NEC/CEC	**MLEDND173P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDND253P5**

① NEMA Type I Elliptical.
*② Voltage specifications: for 120-277 Vac, 50/60 Hz universal voltages add -**BU** to the end of the catalog number. For 347-480 Vac, 50/60 Hz add -**BH** to the end of the catalog number. Example: MLEDNA702P5**BU**.*
*③ For optional diffused globe, add suffix -**D** to the end of the catalog number.*
*④ For optional fusing, add sufffix -**F** to the end of the catalog number. The Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.*
*⑤ For optional photocontrols add the appropriate suffix to the end of the catalog number: -**H1** for 120 V; -**H2** for 208 V; -**H3** for 240 V; -**H4** for 277 V. Luminaires with photocontrol are not rated IP66/67 or marine outside type (salt water). Ceiling mount luminaries are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.*

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Enclosed and Gasketed Fixtures

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

	LED Wattage BU/BH	Lamp Wattage Equivalent	NEMA Type	Hub Size	Conformance	NEC/CEC Catalog Numbers ②③④⑤
Ceiling — Five Hubs, Four Close-up Plugs						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNC702P5**
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNC102P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	3/4	NEC/CEC	**MLEDNC102P1** ①
	61/62 W	150 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNC152P5**
	74/72 W	175 W PSMH	Type V	3/4	NEC/CEC	**MLEDNC172P5**
	70/64 W	175 W PSMH	Type I	3/4	NEC/CEC	**MLEDNC172P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNC252P5**
	35/33 W	70 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNC703P5**
	47.5/46 W	100 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNC103P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	1	NEC/CEC	**MLEDNC103P1** ①
	61/62 W	150 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNC153P5**
	74/72 W	175 W PSMH	Type V	1	NEC/CEC	**MLEDNC173P5**
	70/64 W	175 W PSMH	Type I	1	NEC/CEC	**MLEDNC173P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNC253P5**
Wall — Five Hubs, Four Close-Up Plugs						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNW702P5**
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNW102P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	3/4	NEC/CEC	**MLEDNW102P1** ①
	61/62 W	150 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNW152P5**
	74/72 W	175 W PSMH	Type V	3/4	NEC/CEC	**MLEDNW172P5**
	70/64 W	175 W PSMH	Type I	3/4	NEC/CEC	**MLEDNW172P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	3/4	NEC/CEC	**MLEDNW252P5**
	35/33 W	70 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNW703P5**
	47.5/46 W	100 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNW103P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	1	NEC/CEC	**MLEDNW103P1** ①
	61/62 W	150 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNW153P5**
	74/72 W	175 W PSMH	Type V	1	NEC/CEC	**MLEDNW173P5**
	70/64 W	175 W PSMH	Type I	1	NEC/CEC	**MLEDNW173P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	1	NEC/CEC	**MLEDNW253P5**

① NEMA Type I Elliptical.
*② Voltage specifications: for 120-277 Vac, 50/60 Hz universal voltages add -**BU** to the end of the catalog number. For 347-480 Vac, 50/60 Hz add -**BH** to the end of the catalog number. Example: MLEDNA702P5**BU**.*
*③ For optional diffused globe, add suffix -**D** to the end of the catalog number.*
*④ For optional fusing, add sufffix -**F** to the end of the catalog number. The Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.*
*⑤ For optional photocontrols add the appropriate suffix to the end of the catalog number: -**H1** for 120 V; -**H2** for 208 V; -**H3** for 240 V; -**H4** for 277 V. Luminaires with photocontrol are not rated IP66/67 or marine outside type (salt water). Ceiling mount luminaries are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.*

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Enclosed and Gasketed Fixtures

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

	LED Wattage BU/BH	Lamp Wattage Equivalent	NEMA Type	Hub Size	Conformance	NEC/CEC Catalog Numbers ②③④⑤
25° Stanchion — One Hub						
	35/33 W	70 W HPS/PSMH	Type V	1-1/4	NEC/CEC	**MLEDNS704P5**
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/4	NEC/CEC	**MLEDNS104P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	1-1/4	NEC/CEC	**MLEDNS104P1** ①
	61/62 W	150 W HPS/PSMH	Type V	1-1/4	NEC/CEC	**MLEDNS154P5**
	74/72 W	175 W PSMH	Type V	1-1/4	NEC/CEC	**MLEDNS174P5**
	70/64 W	175 W PSMH	Type I	1-1/4	NEC/CEC	**MLEDNS174P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	1-1/4	NEC/CEC	**MLEDNS254P5**
	35/33 W	70 W HPS/PSMH	Type V	1-1/2	NEC/CEC	**MLEDNS705P5**
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/2	NEC/CEC	**MLEDNS105P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	1-1/2	NEC/CEC	**MLEDNS105P1** ①
	61/62 W	150 W HPS/PSMH	Type V	1-1/2	NEC/CEC	**MLEDNS155P5**
	74/72 W	175 W PSMH	Type V	1-1/2	NEC/CEC	**MLEDNS175P5**
	70/64 W	175 W PSMH	Type I	1-1/2	NEC/CEC	**MLEDNS175P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	1-1/2	NEC/CEC	**MLEDNS255P5**
90° Stanchion — One Hub						
	35/33 W	70 W HPS/PSMH	Type V	1-1/4	NEC/CEC	**MLEDNR704P5**
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/4	NEC/CEC	**MLEDNR104P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	1-1/4	NEC/CEC	**MLEDNR104P1** ①
	61/62 W	150 W HPS/PSMH	Type V	1-1/4	NEC/CEC	**MLEDNR154P5**
	74/72 W	175 W PSMH	Type V	1-1/4	NEC/CEC	**MLEDNR174P5**
	70/64 W	175 W PSMH	Type I	1-1/4	NEC/CEC	**MLEDNR174P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	1-1/4	NEC/CEC	**MLEDNR254P5**
	35/33 W	70 W HPS/PSMH	Type V	1-1/2	NEC/CEC	**MLEDNR705P5**
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/2	NEC/CEC	**MLEDNR105P5**
	46.7/46.6 W	100 W HPS/PSMH	Type I	1-1/2	NEC/CEC	**MLEDNR105P1** ①
	61/62 W	150 W HPS/PSMH	Type V	1-1/2	NEC/CEC	**MLEDNR155P5**
	74/72 W	175 W PSMH	Type V	1-1/2	NEC/CEC	**MLEDNR175P5**
	70/64 W	175 W PSMH	Type I	1-1/2	NEC/CEC	**MLEDNR175P1** ①
	95.5/92 W	250 W HPS/PSMH	Type V	1-1/2	NEC/CEC	**MLEDNR255P5**

① NEMA Type I Elliptical.
*② Voltage specifications: for 120-277 Vac, 50/60 Hz universal voltages add -**BU** to the end of the catalog number. For 347-480 Vac, 50/60 Hz add -**BH** to the end of the catalog number. Example: MLEDNA702P5**BU**.*
*③ For optional diffused globe, add suffix -**D** to the end of the catalog number.*
*④ For optional fusing, add sufffix -**F** to the end of the catalog number. The Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.*
*⑤ For optional photocontrols add the appropriate suffix to the end of the catalog number: -**H1** for 120 V; -**H2** for 208 V; -**H3** for 240 V; -**H4** for 277 V. Luminaires with photocontrol are not rated IP66/67 or marine outside type (salt water). Ceiling mount luminaries are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.*

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

Fixture Unit — Electrical Specification



LED Wattage BU/BH	Light Level Equivalent	NEMA Type	Current Draw	Catalog Number Fuse Kit ①	Catalog Number Fixture Unit	Conformance	Voltage Range	Voltage Suffix
NEC/CEC Certified Ballast Housing								
35/33 W	70 W HPS	Type V	120 Vac @ .31 Amps 277 Vac @ .17 Amps	**F3**	**MLEDN70P5**	NEC/CEC	120-277 Vac, 50/60 Hz	**BU**
34/32 W	70 W HPS	Type V	347 Vac @ .24 Amps 480 Vac @ .11 Amps	**F3**	**MLEDN70P5**	NEC/CEC	347-480 Vac, 50/60 Hz	**BH**
47.5/46 W	100 W HPS	Type V	120 Vac @ .41 Amps 277 Vac @ .20 Amps	**F3**	**MLEDN10P5**	NEC/CEC	120-277 Vac, 50/60 Hz	**BU**
47.5/46 W	100 W HPS	Type I	120 Vac @ .41 Amps 277 Vac @ .20 Amps	**F3**	**MLEDN10P1**	NEC/CEC	120-277 Vac, 50/60 Hz	**BU**
42/44 W	100 W HPS	Type V	347 Vac @ .25 Amps 480 Vac @ .12 Amps	**F3**	**MLEDN10P5**	NEC/CEC	347-480 Vac, 50/60 Hz	**BH**
47.5/46 W	100 W HPS	Type I	347 Vac @ .25 Amps 480 Vac @ .12 Amps	**F3**	**MLEDN10P1**	NEC/CEC	347-480 Vac, 50/60 Hz	**BH**
61/62 W	150 W HPS	Type V	120 Vac @ .53 Amps 277 Vac @ .25 Amps	**F3**	**MLEDN15P5**	NEC/CEC	120-277 Vac, 50/60 Hz	**BU**
62/64 W	150 W HPS	Type V	347 Vac @ .29 Amps 480 Vac @ .14 Amps	**F3**	**MLEDN15P5**	NEC/CEC	347-480 Vac, 50/60 Hz	**BH**
74/72 W	175 W PSMH	Type V	120 Vac @ .63 Amps 277 Vac @ .28 Amps	**F3**	**MLEDN17P5**	NEC/CEC	120-277 Vac, 50/60 Hz	**BU**
70/69 W	175 W PSMH	Type I	120 Vac @ .61 Amps 277 Vac @ .28 Amps	**F3**	**MLEDN17P1**	NEC/CEC	120-277 Vac, 50/60 Hz	**BU**
86/88 W	175 W PSMH	Type V	347 Vac @ .25 Amps 480 Vac @ .16 Amps	**F3**	**MLEDN17P5**	NEC/CEC	347-480 Vac, 50/60 Hz	**BH**
70/69 W	175 W PSMH	Type I	347 Vac @ .24 Amps 480 Vac @ .16 Amps	**F3**	**MLEDN17P1**	NEC/CEC	347-480 Vac, 50/60 Hz	**BH**
95.5/92 W	250 W HPS/PSMH	Type V	120 Vac @ .83 Amps 277 Vac @ .36 Amps	**F3**	**MLEDN25P5**	NEC/CEC	120-277 Vac, 50/60 Hz	**BU**
96/95 W	250 W HPS/PSMH	Type V	347 Vac @ .45 Amps 480 Vac @ .31 Amps	**F3**	**MLEDN25P5**	NEC/CEC	347-480 Vac, 50/60 Hz	**BH**

① *Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.*

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NBR IEC:
Zone 2 and 22
Ex nA IIC Gc
Ex tc IIIC Dc
IP66

	LED Wattage	Lamp Wattage Equivalent	NEMA Type	Hub Size	Conformance	NBR IEC Catalog Numbers ①
Pendant — One Hub, Rigid Mounting						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAA702P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAA102P5BU**
	61/62 W	150 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAA152P5BU**
	74/72 W	175 W PSMH	Type V	3/4	NBR IEC	**NMLEDNAA172P5BU**
	35/33 W	70 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAA703P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAA103P5BU**
	61/62 W	150 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAA153P5BU**
	74/72 W	175 W PSMH	Type V	1	NBR IEC	**NMLEDNAA173P5BU**
Pendant Cone — One Hub, Rigid Mounting						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAD702P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAD102P5BU**
	61/62 W	150 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAD152P5BU**
	74/72 W	175 W PSMH	Type V	3/4	NBR IEC	**NMLEDNAD172P5BU**
	35/33 W	70 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAD703P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAD103P5BU**
	61/62 W	150 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAD153P5BU**
	74/72 W	175 W PSMH	Type V	1	NBR IEC	**NMLEDNAD173P5BU**
Ceiling — Five Hubs, Four Close-up Plugs						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAC702P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAC102P5BU**
	61/62 W	150 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAC152P5BU**
	74/72 W	175 W PSMH	Type V	3/4	NBR IEC	**NMLEDNAC172P5BU**
	35/33 W	70 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAC703P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAC103P5BU**
	61/62 W	150 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAC153P5BU**
	74/72 W	175 W PSMH	Type V	1	NBR IEC	**NMLEDNAC173P5BU**

① *For optional diffused globe, add suffix -**D** to the end of the catalog number.*

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NBR IEC:
Zone 2 and 22
Ex nA IIC Gc
Ex tc IIIC Dc
IP66

	LED Wattage	Lamp Wattage Equivalent	NEMA Type	Hub Size	Conformance	NBR IEC Catalog Numbers ①
Wall — Five Hubs, Four Close-Up Plugs						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAW702P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAW102P5BU**
	61/62 W	150 W HPS/PSMH	Type V	3/4	NBR IEC	**NMLEDNAW152P5BU**
	74/72 W	175 W PSMH	Type V	3/4	NBR IEC	**NMLEDNAW172P5BU**
	35/33 W	70 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAW703P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAW103P5BU**
	61/62 W	150 W HPS/PSMH	Type V	1	NBR IEC	**NMLEDNAW153P5BU**
	74/72 W	175 W PSMH	Type V	1	NBR IEC	**NMLEDNAW173P5BU**
25° Stanchion — One Hub						
	35/33 W	70 W HPS/PSMH	Type V	1-1/4	NBR IEC	**NMLEDNAS704P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/4	NBR IEC	**NMLEDNAS104P5BU**
	61/62 W	150 W HPS/PSMH	Type V	1-1/4	NBR IEC	**NMLEDNAS154P5BU**
	74/72 W	175 W PSMH	Type V	1-1/4	NBR IEC	**NMLEDNAS174P5BU**
	35/33 W	70 W HPS/PSMH	Type V	1-1/2	NBR IEC	**NMLEDNAS705P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/2	NBR IEC	**NMLEDNAS105P5BU**
	61/62 W	150 W HPS/PSMH	Type V	1-1/2	NBR IEC	**NMLEDNAS155P5BU**
	74/72 W	175 W PSMH	Type V	1-1/2	NBR IEC	**NMLEDNAS175P5BU**
90° Stanchion — One Hub						
	35/33 W	70 W HPS/PSMH	Type V	1-1/4	NBR IEC	**NMLEDNAR704P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/4	NBR IEC	**NMLEDNAR104P5BU**
	61/62 W	150 W HPS/PSMH	Type V	1-1/4	NBR IEC	**NMLEDNAR154P5BU**
	74/72 W	175 W PSMH	Type V	1-1/4	NBR IEC	**NMLEDNAR174P5BU**
	35/33 W	70 W HPS/PSMH	Type V	1-1/2	NBR IEC	**NMLEDNAR705P5BU**
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/2	NBR IEC	**NMLEDNAR105P5BU**
	61/62 W	150 W HPS/PSMH	Type V	1-1/2	NBR IEC	**NMLEDNAR155P5BU**
	74/72 W	175 W PSMH	Type V	1-1/2	NBR IEC	**NMLEDNAR175P5BU**

① *For optional diffused globe, add suffix -**D** to the end of the catalog number.*

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Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

ATEX/IECEx:
Zone 2 and 22
Ⓔx II 2 GD
IP66/67

NBR IEC:
Zone 2 and 22
Ex nA IIC Gc
Ex tc IIIC Dc
IP66

Fixture Unit — Electrical Specification



LED Wattage BU	Light Level Equivalent	NEMA Type	Current Draw	Fixture Unit Catalog Number	Conformance	Voltage Range	Voltage Suffix
ATEX/IECEx Certified Ballast Housing ①							
35/33 W	70 W HPS	Type V	120 Vac @ .31 Amps 277 Vac @ .17 Amps	**MLEDNA70P5**	ATEX/IECEx	120-277 Vac, 50/60 Hz	**BU**
47.5/46 W	100 W HPS	Type V	120 Vac @ .41 Amps 277 Vac @ .20 Amps	**MLEDNA10P5**	ATEX/IECEx	120-277 Vac, 50/60 Hz	**BU**
61/62 W	150 W HPS	Type V	120 Vac @ .53 Amps 277 Vac @ .25 Amps	**MLEDNA15P5**	ATEX/IECEx	120-277 Vac, 50/60 Hz	**BU**
74/72 W	175 W PSMH	Type V	120 Vac @ .63 Amps 277 Vac @ .28 Amps	**MLEDNA17P5**	ATEX/IECEx	120-277 Vac, 50/60 Hz	**BU**
NBR IEC Certified Ballast Housing							
35/33 W	70 W HPS	Type V	120 Vac @ .31 Amps 277 Vac @ .17 Amps	**NMLEDNA70P5**	NBR IEC	120-277 Vac, 50/60 Hz	**BU**
47.5/46 W	100 W HPS	Type V	120 Vac @ .41 Amps 277 Vac @ .20 Amps	**NMLEDNA10P5**	NBR IEC	120-277 Vac, 50/60 Hz	**BU**
61/62 W	150 W HPS	Type V	120 Vac @ .53 Amps 277 Vac @ .25 Amps	**NMLEDNA15P5**	NBR IEC	120-277 Vac, 50/60 Hz	**BU**
74/72 W	175 W PSMH	Type V	120 Vac @ .63 Amps 277 Vac @ .28 Amps	**NMLEDNA17P5**	NBR IEC	120-277 Vac, 50/60 Hz	**BU**

① For ATEX/IECEx rated fixtures, ballast bodies and mounting hoods must be purchased separately.

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Mounting Hoods ①

	Description	Hub Size	Catalog Number NEC/CEC and ATEX/IEC	Catalog Number NBR IEC
Pendant				
	One Hub, Rigid Mounting	3/4	**KPA-75**	**NKPA-75**
		1	**KPA-100**	**NKPA-100**
		M20	**KPA-M20**	**NKPA-M20**
Pendant Cone				
	One Hub, Rigid Mounting	3/4	**KPCH-75**	**NKPCH-75**
		1	**KPCH-100**	**NKPCH-100**
		M20	**KPCH-M20**	**NKPCH-M20**
Ceiling				
	Five Hubs, Four Close-Up Plugs	3/4	**KPC-75**	**NKPC-75**
		1	**KPC-100**	**NKPC-100**
		M20	**KPC-M20**	**NKPC-M20**
Wall				
	Five Hubs, Four Close-Up Plugs	3/4	**KPWB-75**	**NKPWB-75**
		1	**KPWB-100**	**NKPWB-100**
		M20	**KPWB-M20**	**NKPWB-M20**
25° Stanchion				
	One Hub	1-1/4	**KPS-125**	**NKPS-125**
		1-1/2	**KPS-150**	**NKPS-150**
90° Stanchion				
	One Hub	1-1/4	**KPST-125**	**NKPST-125**
		1-1/2	**KPST-150**	**NKPST-150**

① *For ATEX/IECEx rated fixtures, ballast bodies and mounting hoods must be purchased separately.*

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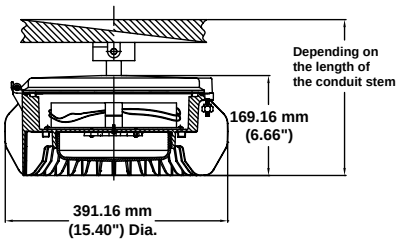
Replacement Parts

	Description	Catalog Number NEC/CEC and ATEX/IEC	NBR IEC
Globes and Gaskets			
	Clear Globe	**VPGL-LED**	**NVPGL-LED**
	Diffused Globe	**VPGL-DIFF**	**NVPGL-DIFF**
	Globe Gasket — Silicone Rubber	**KRF-GK**	**NKRF-GK**

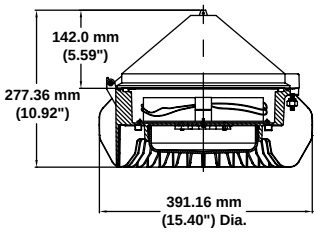
	Description	Catalog Number NEC/CEC	ATEX/IEC	NBR IEC
LED Array				
	100 Watt LED Array Assembly, Type 1, White LED's	**MLEDN10A1W**	**MLEDN10A1W**	**NMLEDN10A1W**
	175 Watt LED Array Assembly, Type 1, White LED's	**MLEDN17A1W**	**MLEDN17A1W**	**NMLEDN17A1W**
	70 Watt LED Array Assembly, Type 5, White LED's	**MLEDN70A5W**	**MLEDN70A5W**	**NMLEDN70A5W**
	100 Watt LED Array Assembly, Type 5, White LED's	**MLEDN10A5W**	**MLEDN10A5W**	**NMLEDN10A5W**
	150 Watt LED Array Assembly, Type 5, White LED's	**MLEDN15A5W**	**MLEDN15A5W**	**NMLEDN15A5W**
	175 Watt LED Array Assembly, Type 5, White LED's	**MLEDN17A5W**	**MLEDN17A5W**	**NMLEDN17A5W**
	250 Watt LED Array Assembly, Type 5, White LED's	**MLEDN25A5W**	—	—
Drivers				
	120/277 V Driver	**MLEDNDBU**	**MLEDNDBU**	**NMLEDNDBU**
	347/480 V Driver	**MLEDNDBH**	—	—

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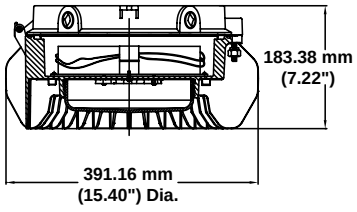
Dimensions in Millimeters (Inches)



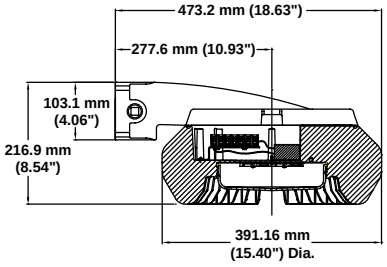
Pendant Mount



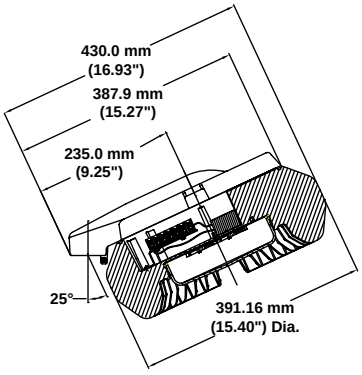
Pendant Cone Mount



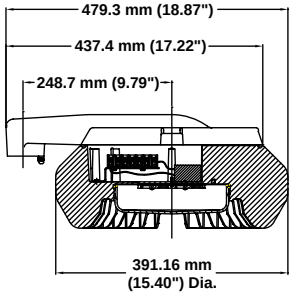
Ceiling Mount



Wall Mount



25° Stanchion Mount



90° Stanchion Mount

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REPORT NUMBER: **MLEDN70P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

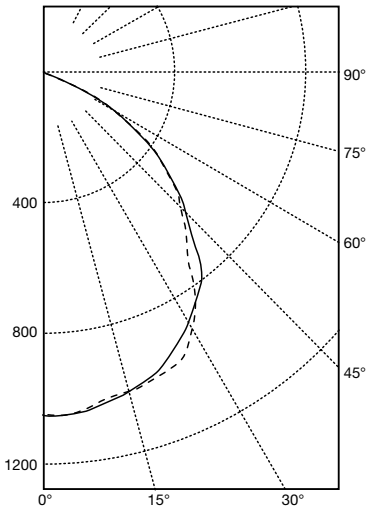
	0.0	22.5	45.0	67.5	90.0	Flux
0	1054	1054	1054	1054	1054	
5	1048	1047	1051	1047	1048	100
15	1016	1014	1016	1014	1016	287
25	977	961	941	961	977	442
35	805	779	824	779	805	497
45	583	607	603	607	583	465
55	408	425	411	425	408	358
65	185	146	139	146	185	133
75	5	5	4	5	5	9
85	1	0	0	0	1	1
90	0	0	0	0	0	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	829	36.1
0-40	1326	57.7
0-60	2149	93.5
0-90	2292	99.7

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.3	1.3



REPORT NUMBER: **MLEDN10P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

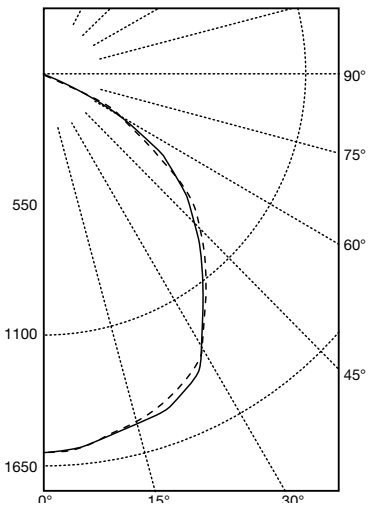
	0.0	22.5	45.0	67.5	90.0	Flux
0	1580	1580	1580	1580	1580	
5	1569	1568	1568	1568	1569	149
15	1509	1510	1513	1510	1509	427
25	1412	1414	1437	1414	1412	655
35	1177	1215	1171	1215	1177	748
45	934	915	893	915	934	707
55	577	588	632	588	577	527
65	228	218	195	218	228	209
75	6	7	6	7	6	13
85	0	0	0	0	0	1
90	0	0	0	0	0	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1231	35.8
0-40	1980	57.6
0-60	3213	93.5
0-90	3438	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



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Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **MLEDN10P1BU (NEMA Type I)**
Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

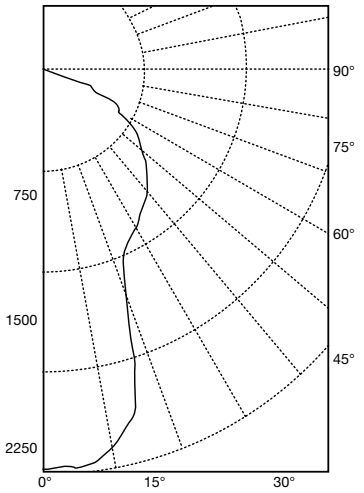
Zone	Lumen
0-10	276.95
10-20	715.67
20-30	650.02
30-40	492.78
40-50	369.94
50-60	232.10
60-70	127.75
70-80	22.49
80-90	2.23

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
0.74	0.74

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-20	992.62	34.3
0-30	1642.65	56.8
0-40	2135.42	73.8
0-60	2737.46	94.7
0-80	2887.70	99.8
0-90	2889.93	99.9



REPORT NUMBER: **MLEDN15P5BU**
Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

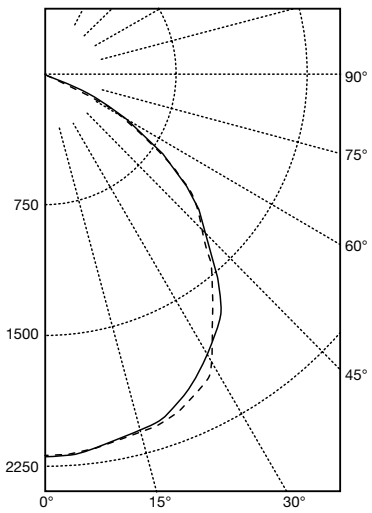
	0.0	22.5	45.0	67.5	90.0	Flux
0	2208	2208	2208	2208	2208	
5	2202	2195	2197	2195	2202	209
15	2137	2131	2127	2131	2137	603
25	2045	2003	1977	2003	2045	926
35	1669	1658	1735	1658	1669	1051
45	1252	1282	1297	1282	1252	988
55	836	850	838	850	834	746
65	276	307	333	307	276	298
75	16	12	11	12	16	22
85	2	1	1	1	2	2
90	1	0	0	0	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1738	35.8
0-40	2789	57.5
0-60	4523	93.3
0-90	4844	99.9

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



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REPORT NUMBER: **MLEDN17P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

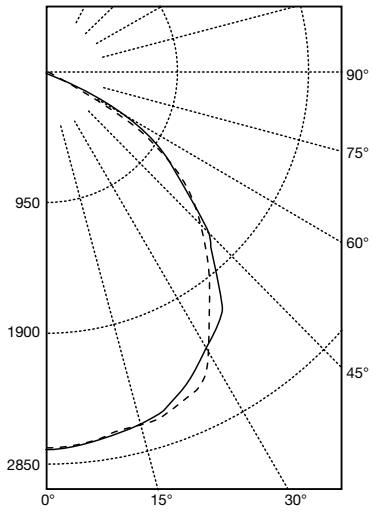
	0.0	22.5	45.0	67.5	90.0	Flux
0	2739	2739	2739	2739	2739	
5	2724	2724	2725	2724	2724	259
15	2660	2658	2655	2658	2660	752
25	2553	2508	2462	2508	2553	1156
35	2069	2062	2201	2062	2069	1312
45	1580	1614	1655	1614	1580	1243
55	1047	1093	1046	1093	1047	943
65	353	380	391	380	353	378
75	19	15	16	15	19	28
85	2	1	1	1	2	2
90	1	0	0	0	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	2167	35.7
0-40	3478	57.2
0-60	5664	93.2
0-90	6072	99.9

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



REPORT NUMBER: **MLEDN17P1BU (NEMA Type I)**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

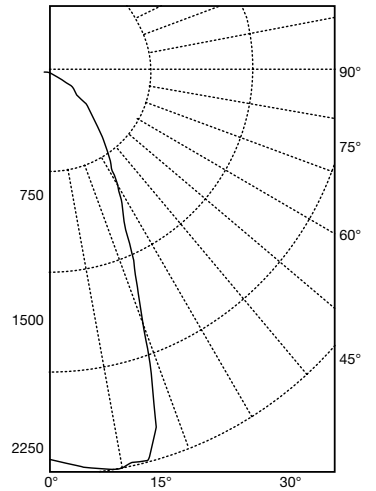
Zone	Lumen
0-10	546.35
10-20	1546.51
20-30	1410.19
30-40	1071.42
40-50	791.23
50-60	524.94
60-70	261.82
70-80	44.42
80-90	3.81

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
0.84	0.84

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-20	2092.86	33.70
0-30	3503.05	56.50
0-40	4574.48	73.70
0-60	5890.65	94.90
0-80	6196.88	99.90
0-90	6200.69	99.90



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REPORT NUMBER: **MLEDN250P5BU** ①
Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

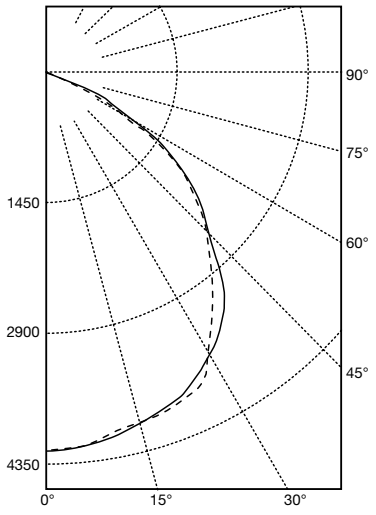
	0.0	22.5	45.0	67.5	90.0	Flux
0	4206	4206	4206	4206	4206	
5	4170	4182	4177	4182	4170	397
15	4035	4046	4038	4046	4035	1145
25	3913	3888	3829	3888	3913	1784
35	3211	3233	3380	3233	3211	2046
45	2484	2524	2532	2524	2484	1942
55	1710	1763	1708	1763	1710	1530
65	682	564	606	564	682	568
75	20	18	17	18	20	31
85	2	1	1	1	2	2
90	1	1	0	1	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	3326	35.2
0-40	5372	56.8
0-60	8844	93.5
0-90	9445	99.9

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



① *Lamp type is not certified for use in ATEC/IEC or NBR IEC governed locations.*

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Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 AEx nA IIC, Ex nA IIC
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type (Salt Water)
Wet Locations

ATEX/IECEx:
II 3 G
Ex nA IIC T4 Gc
Ta -25 °C to +40 °C
(-13 °F to +104 °F)
IP66

NBR IEC:
Zone 2 – 21 and 22
Ex nA IIC Gc
Ex tb IIIC Db
IP66

Applications

- Typical applications include:
  - — Pulp and paper mills
  - — Processing plants
  - — Chemical plants
  - — Oil refineries
  - — Foundries
  - — Food processing plants
  - — Storage areas
  - — Waste and sewage treatment
  - — Parking garages
  - — Other areas where water, dirt and rough usage are a problem

Features

- Compact in size, attractively styled contemporary design, rugged and dependable.
- Easy to install and service.
- One-piece housing.
- One-piece lens in hinged cover. Secured by four M6 captive stainless steel slotted hex-head bolts.
- Thermal shock- and impact-resistant glass lens standard.
- Diffused polycarbonate lens available as an option.
- Heavy duty, high temperature silicone rubber gasket, mechanically secured.
- Universal design for flood and high bay mounting.
- Floodlight Mounting:
  - — Yoke mount, zinc plated steel yoke with architectural bronze polyester finish.
- High Bay Mounting:
  - — (1) Conduit entry on back of luminaire with locking set screw.
  - — Rotate yoke up or remove.
- Chain Mounting:
  - — Mounts via eyebolts threaded into the corners of the fixture.
  - — Available with chain mounting, or as an accessory.
  - — Rotate yoke up or remove.
- Cool operating temperatures translate into long luminaire life.
- NEC/CEC versions available with a total of three (3) 3/4" NPT entries with integral bushings.
- ATEX/IECEx version provided with one (1) 3/4" NPT/M20 adapter and two (2) close up plugs.
- Two (2) 3/4" NPT aluminum close up plugs provided.
- Electrical:
  - — NEC/CEC: 120-277 Vac, 50/60 Hz; 347-480 Vac, 50/60 Hz.; 250 Vdc available on AMLED77YBC.
  - — ATEX/IECEx and NBR IEC: 220-240 Vac, 50/60 Hz.
- Terminal block (screw type for secure connection) can accept UL/CSA 24-10AWG and IEC 0.2 - 4 mm^2.

Standard Materials

- Housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Reflector: metallized high reflectance finish
- Yoke mount: zinc plated steel
- Bolts: stainless steel
- Close up plugs: (2) aluminum provided

Standard Finishes

- Housing, lens cover and yoke mount: architectural bronze polyester

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 1598A, UL 8750, UL 844
- UL Listed: E10794
- CSA Standards: C22.2 No. 250.0, C22.2 No. 137



Floodlight



High Bay

- Ambient Temperature: AMLED67 and AMLED77 -40 °C to +65 °C (-40 °F to +149 °F); AMLED87 -40 °C to +55 °C (-40 °F to +131 °F)

ATEX/IECEx Certifications and Compliances

- Gas
  - — Conforming to ATEX 94/9/EC: ⟨Ex⟩ II 3 G
  - — ATEX Protection: Ex nA IIC
  - — T Rating: T4 (Ta < +40 ºC) (Ta < +104 ºF)
  - — Ambient Temperature: -25 ºC < Ta < 40 ºC (-13 ºF < Ta < 104 ºF)
  - — ATEX Certificate: DEMKO 12 ATEX 1225382
  - — Index of Protection: IP66
  - — CE Declaration of Conformity: 12-01
  - — Ex Standards: EN/IEC 60079-0 2009; 60079-15:2010
  - — Product Standards: EN/IEC 60598-1; 60598-2-22
  - — EMC Standards: EN/IEC 55015; 61547
  - — Other Standards: EN/IEC 60529; 1991/A1 2000 (IP)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: AMLED
  - — Gas: Zone 2
    - – IEC Marking: Ex nA IIC Gc
    - – T Rating: T4
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
    - – Surface Temperature: T135°C (275°F)
- Ambient Temperature: -25°C to +40°C (-13°F to +104°F)
- Ingress Protection (solid and liquid): IP66
- INMETRO Certificate: TUV 13.0455
- Ex Standards: ABNT NBR IEC 60079-0, ABNT NBR IEC 60079-15, ABNT NBR IEC 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 AEx nA IIC, Ex nA IIC
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type (Salt Water)
Wet Locations

ATEX/IECEx:
II 3 G
Ex nA IIC T4 Gc
Ta -25 °C to +40 °C
(-13 °F to +104 °F)
IP66

NBR IEC:
Zone 2 – 21 and 22
Ex nA IIC Gc
Ex tb IIIC Db
IP66

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — NEC/CEC Certified Areamaster LED

AMLED	7	7	Y	BU1	FN
Series: AMLED: Areamaster LED Series NEC/CEC Certified	HID Light Level Equivalent: 6 - 250 Watt 7 - 400 Watt 8 - 750 Watt	Light Pattern	Mounting: Y - Yoke Mount C - Chain Mount	Voltage: BU1 - 120-277 Vac, 50/60 Hz BH - 347-480 Vac, 50/60 Hz ① BC - 250 Vdc ④	Options: FN - Fuse for BU1 or BH Voltages ①③ D - Diffused Polycarbonate Lens

Catalog Numbering Guide — ATEX/IECEx and NBR IEC Brazilian Certified Areamaster LED

AMLED	7	7	Y	BK
Series: AMLED: Areamaster LED Series ATEX/IECEx Certified NAMLED: Areamaster LED Series Zone 1 – 21 and 22 NBR IEC Certified	HID Light Level Equivalent: 7 - 400 Watt	Light Pattern	Mounting: Y - Yoke Mount C - Chain Mount	Voltage: BK - 220-240 Vac, 50/60 Hz ②

① *Not available for use on the 750 Watt equivalent.*
② *220-240 Vac, 50/60 Hz voltage is certified for use on the ATEX/IECEx and NBR IEC 400 Watt equivalent fixtures.*
③ *Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.*
④ *Not available for use on the 250 and 750 Watt equivalent.*

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Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 AEx nA IIC, Ex nA IIC
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type (Salt Water)
Wet Locations

ATEX/IECEx:
II 3 G
Ex nA IIC T4 Gc
Ta -25 °C to +40 °C
(-13 °F to +104 °F)
IP66

NBR IEC:
Zone 2 – 21 and 22
Ex nA IIC Gc
Ex tb IIIC Db
IP66

Technical Data

						NEC/CEC				ATEX/IECEx and NBR IEC
	Lamp					Gas		Dust	Gas	
Catalog Number	Line Voltage	Type	Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	Class I, Division 2 ①	Groups	ExnA IIC AExnA IIC	Class II, Division 1 Groups E,F,G	ExII3G ExnA ②	Subdivision
AMLED67YBU1	120-277 Vac	LED	40 (104)	75 (167)	T4	A,B,C,D	T4	—	—	—
			55 (131)	90 (194)	T3C	A,B,C,D	T3	—	—	—
			65 (149)	90 (194)	T3C	A,B,C,D	T3	—	—	—
AMLED67YBH	347-480 Vac	LED	40 (104)	75 (167)	T4	A,B,C,D	T4	—	—	—
AMLED77YBU1	120-277 Vac	LED	40 (104)	75 (167)	T4	A,B,C,D	T4	—	—	—
			55 (131)	90 (194)	T3C	A,B,C,D	T3	—	—	—
			65 (149)	105 (221)	T3C	A,B,C,D	T3	—	—	—
AMLED77YBH	347-480 Vac	LED	40 (104)	75 (167)	T4	A,B,C,D	T4	—	—	—
AMLED77YBK NAMLED77YBK	220-240 Vac	LED	40 (104)	60 (140)	T4	A,B,C,D	T4	—	T4	IIC
AMLED77YBC	250 Vdc	LED	40 (104)	75 (167)	T4A	A,B,C,D	T4	—	—	—
AMLED87YBU1	120-277 Vac	LED	40 (104)	75 (167)	T3C	A,B,C,D	T3	—	—	—
			55 (131)	90 (194)	T3A	A,B,C,D	T3	—	—	—

"T" Numbers Represent the Maximum Internal Temperature ① or Maximum Surface Temperature ②

"T"	NEC/CEC															
Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-12	185

"T"	ATEX/IECEx and NBR IEC					
Number	T1	T2	T3	T4	T5	T6
Temp. Range (°C)	301-450	201-300	136-200	101-135	86-100	85
Temp. Range (°F)	547-842	394-572	277-392	214-275	187-212	185

① T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.
② T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.

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Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 AEx nA IIC, Ex nA IIC
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type (Salt Water)
Wet Locations

ATEX/IECEx:
II 3 G
Ex nA IIC T4 Gc
Ta -25 °C to +40 °C
(-13 °F to +104 °F)
IP66

NBR IEC:
Zone 2 – 21 and 22
Ex nA IIC Gc
Ex tb IIIC Db
IP66

Electrical Specifications — Flood Mount

Catalog Number	Voltage Range	Frequency (Hz)	Watts Input Power (Nom.)	Input Amps (Max.)	Total Harmonic Distortion	Power Factor
AMLED67YBU1	120-277 Vac	50/60	76/74	0.64 - 0.32	0.5	> 0.98
AMLED67YBH	347-480 Vac	50/60	76/76	0.22 - 0.16	0.5	> 0.96
AMLED77YBU1	120-277 Vac	50/60	125/121	1.10 - .047	0.5	> 0.98
AMLED77YBH	347-480 Vac	50/60	120/119	0.35 - 0.25	0.5	> 0.96
AMLED77YBK NAMLED77YBK	220-240 Vac	50/60	117	0.53 - 0.48	0.5	> 0.98
AMLED77YBC	250 Vdc	—	118	0.47	0.5	> 0.98
AMLED87YBU1	120-277 Vac	50/60	174/169	1.60 - 0.70	0.5	> 0.98



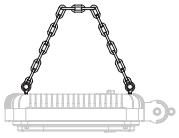
Line Voltage	Catalog Number NEC/CEC	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
120-277 Vac, 50/60 Hz	**AMLED67YBU1**	—	—
120-277 Vac, 50/60 Hz	**AMLED77YBU1**	—	—
120-277 Vac, 50/60 Hz	**AMLED87YBU1**	—	—
347-480 Vac, 50/60 Hz	**AMLED67YBH**	—	—
347-480 Vac, 50/60 Hz	**AMLED77YBH**	—	—
250 Vdc	**AMLED77YBC**	—	—
220-240 Vac, 50/60 Hz	—	**AMLED77YBK**	**NAMLED77YBK**

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Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

Accessories and Replacement Parts

Description	Catalog Number NEC/CEC, ATEX/IEC	Catalog Number NBR IEC
Crossarm Mounting Bracket		
 Has 180° horizontal adjustment — degree marked. Facilitates mounting floodlight to crossarm or other flat surface, or to G-AM-8-WB. Includes floodlight yoke bolts. Malleable iron, zinc plated, chromate sealed, architectural bronze polyester finish.	**G-AM-8-CA**	**NGAM8CA**
Pipe or Wall Mount Bracket		
 Used with G-AM-8-CA. Clamps to 1” to 2-1/2” pipe, vertical or horizontal, or mounts on flat surfaces. Includes U-bolt and crossarm bracket bolts. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyster finish.	**G-AM-8-WB**	**NGAM8WB**
Poletop Slip-Fitter		
 Slip-fits 1-1/2” or 2” pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish.	**G-SF20**	—
 Slip-fits 1" or 1-1/2” pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish.	**AMLEDSF1**	—
Poletop Slip-Fitter		
 Slip-fits 2” or 2-1/2” poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.	**G-AM-8-SF**	—
Chain		
 Chain mount assembly comes with two (2) 914.4 mm (36 inch) long chains, four (4) eye bolts, four (4) hex bolts, four (4) lock washers, four (4) hex nuts, eight (8) plain washers and an instruction sheet for complete assembly and mounting. Chains are galvanized steel, eye bolts are zinc plated steel, all other hardware is stainless steel.	**AMLEDCM**	**NAMLEDCM**

Description	Catalog Number NEC/CEC	Catalog Number ATEX/IEC	Catalog Number NBR IEC
LED Array			
With White LED's for the AMLED67	**AMLED67AW**	—	—
With White LED's for the AMLED77	**AMLED77AW**	**AMLED77AW**	**NAMLED77AW**
With White LED's for the AMLED87	**AMLED87AW**	—	—
Drivers			
120 - 277 Vac — BU Version and BC Version	**AMLED77DBU**	—	—
120 - 277 Vac — BU1 Version — AMLED87: Left Side — AMLED67, AMLED77	**AMLEDDBU1L**	—	—
120 - 277 Vac — BU1 Version — AMLED87: Right Side	**AMLEDDBU1R**	—	—
220 - 240 Vac — BK Version	**AMLED77DBK**	**AMLED77DBK**	**NAMLED77DBK**
347 - 480 Vac — BH Version	**AMLED77DBH**	—	—
Door Assembly			
With a Glass Lens, Pins	**AMLEDMDOOR**	**AMLEDMDOOR**	**NAMLEDMDOOR**
With a Polycarbonate Lens, Pins	**AMLEDMDOORP**	—	—

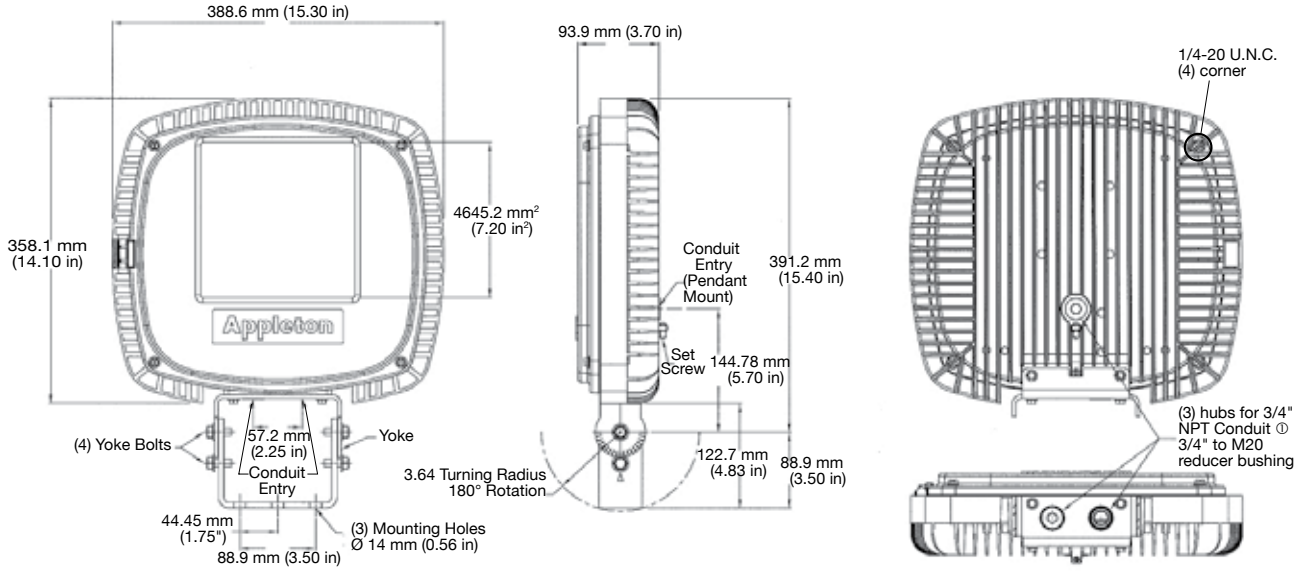
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Areamaster™ LED Flood/High Bay Luminaires

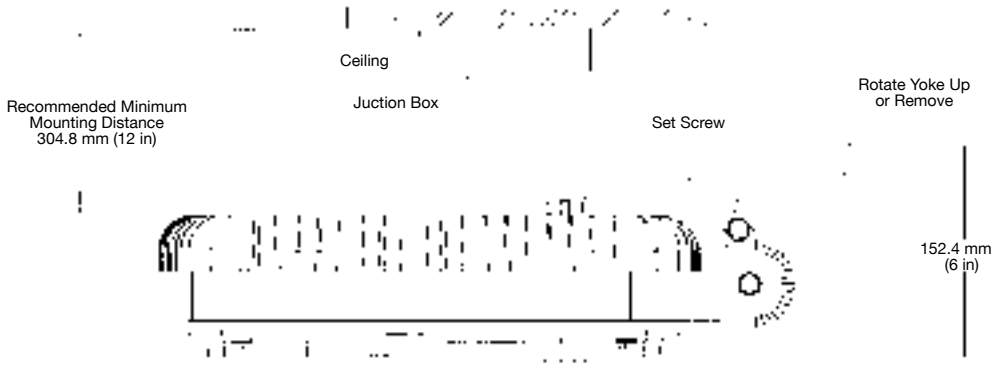
For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

Dimensions in Millimeters (Inches)

Floodlight



High Bay Pendant Mount



① *3/4" NPT/M20 adapter supplied for ATEX version.*

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Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

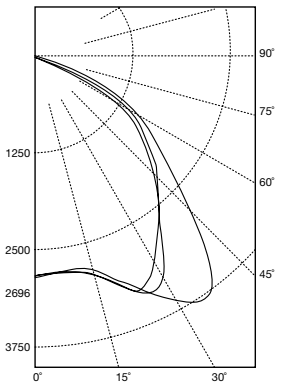
Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **AMLED67YBU1_FLOOD**

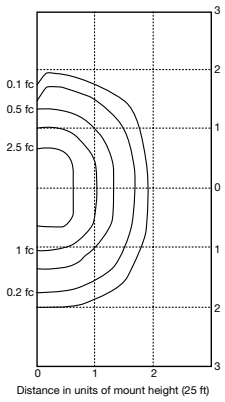
Lamps: Areamaster, High Bay Mount, LED Board 39 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Luminaire Lumens 8238

POLAR CANDELA DISTRIBUTION



ISOCANDELA CURVES



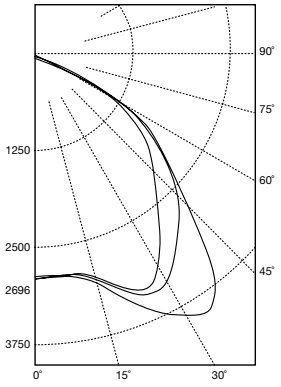
Zonal Lumen and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-10	245.6	N.A.	3.0
10-20	771.8	N.A.	9.4
20-30	1431	N.A.	17.4
30-40	1842	N.A.	22.4
40-50	1785	N.A.	21.7
50-60	1448	N.A.	17.6
60-70	667.1	N.A.	8.1
70-80	43.8	N.A.	0.5
80-90	4.5	N.A.	0.1

REPORT NUMBER: **AMLED67YBU1_HIGHBAY**

Lamps: Areamaster, High Bay Mount, LED Board 39 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

POLAR CANDELA DISTRIBUTION



Zonal Lumen Summary and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-30	2434	N.A.	29.2
0-40	4283	N.A.	51.6
0-60	7553	N.A.	90.6
60-90	780	N.A.	9.4
0-90	8333	N.A.	100.0
90-180	0	N.A.	0
0-180	8333	N.A.	100.0

Zonal Lumen and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-10	244.8	N.A.	2.9
10-20	764.2	N.A.	9.2
20-30	1425	N.A.	17.1
30-40	1849	N.A.	22.2
40-50	1787	N.A.	21.4
50-60	1483	N.A.	17.8
60-70	731.0	N.A.	8.8
70-80	46.7	N.A.	0.6
80-90	2.4	N.A.	0.0

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Areamaster™ LED Flood/High Bay Luminaire Photometric Data

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **AMLED77YBU1_FLOOD**

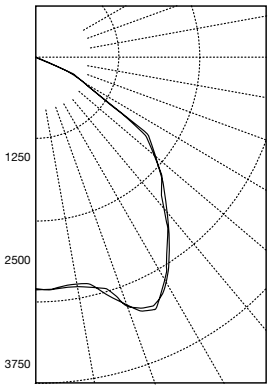
Lamps: Areamaster, High Bay Mount, LED Board 56 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Characteristics: Maximum Candela: 5818; Maximum Candela Angle: 22.5 H 25.5 V; Horizontal Beam Angle (50%): 97.0; Vertical Beam Angle (50%): 102; Horizontal Field Angle (10%): 134; Vertical Field Angle (10%): 134; Beam Lumens 10414; Field Lumens 12967; Luminaire Lumens 13157

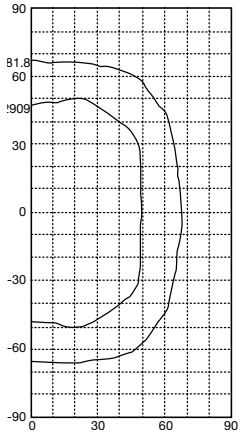
AXIAL CANDELA

DEG.	HOR.	VERT.
90.0	0	0
85.0	21	2
75.0	26	5
65.0	700	733
55.0	2400	2341
47.5	3023	2976
42.5	3375	3307
37.5	3838	3826
33.0	4312	4319
29.0	4670	4719
25.5	4964	4898
22.5	4910	4857
19.5	4700	4660
17.0	4456	4343
15.0	4273	4249
13.0	4184	4165
11.0	4154	4123
9.0	4139	4105
7.0	4124	4119
5.0	4127	4133
3.0	4138	4150
1.0	4149	4153
0.0	4149	4149

AXIAL CANDELA DISPLAY



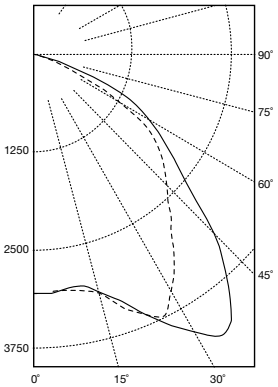
ISOCANDELA CURVES



CIE Type – Direct

Plane	Spacing Criteria
0 Deg	1.5
90 Deg	1.5

Zone	Lumens
0-5	98
5-10	290
10-15	485
15-20	711
20-25	993
25-30	1264
30-35	1440
35-40	1517
40-45	1471
45-50	1392
50-55	1283
55-60	1086
60-65	764
65-70	340
70-75	37
75-80	4
80-85	2
85-90	1



REPORT NUMBER: **AMLED77YBU1_HIGHBAY**

Lamps: Areamaster, High Bay Mount, LED Board 56 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10		0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
	1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88	
	2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76	
	3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	
	4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56	
	5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	50	48	
	6	73	60	52	46	71	59	51	45	58	50	45	56	50	45	54	49	44	42	
	7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37	
	8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33	
	9	58	45	37	32	57	45	37	32	44	37	32	43	36	31	42	36	31	30	
	10	55	42	34	29	53	41	34	29	40	33	29	39	33	28	38	32	28	27	

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	3841	N.A.	29.1	90-130	2	N.A.	0.0
0-40	6798	N.A.	51.5	90-150	6	N.A.	0.0
0-60	12029	N.A.	91.1	90-180	7	N.A.	0.1
0-90	13177	N.A.	99.8	0-180	13199	N.A.	100
90-120	1	N.A.	0.0				

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Areamaster™ LED High Bay Luminaire Photometric Data

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **AMLED87YBU1_FLOOD**

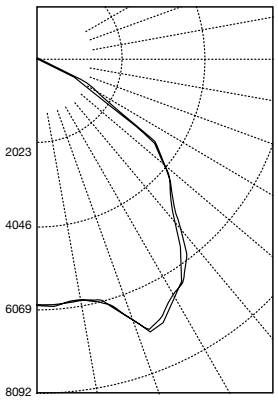
Lamps: Areamaster, Pendent Mount, LED Board 20 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Characteristics: NEMA Type: 7Hx7V; Maximum Candela: 8092; Maximum Candela Angle: 25.5H 25.5V; Horizontal Beam Angle (50%): 97.3; Vertical Beam Angle (50%): 103; Horizontal Field Angle (10%): 137; Vertical Field Angle (10%): 136; Beam Lumens 14933; Field Lumens 18585; Luminaire Lumens 18842

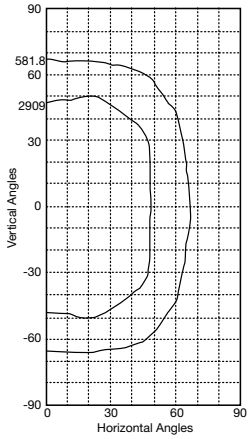
AXIAL CANDELA

DEG.	HOR.	VERT.
90	0	0
85	31	5
75	36	8
65	1239	938
55	3463	3477
47.5	4393	4345
42.5	4921	4831
37.5	5955	5752
33	6455	6392
29	6656	6778
25.5	6998	7087
22.5	7109	7158
19.5	6665	6664
17	6302	6222
15	6059	6108
13	6027	6044
11	5931	5942
9	5914	5938
7	5933	5956
5	5974	5975
3	6003	5995
1	6002	6004
0	5999	5999

AXIAL CANDELA DISPLAY



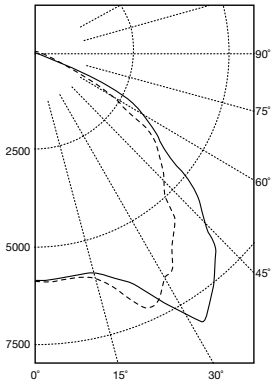
ISOCANDELA CURVES



CIE Type – Direct

Plane	Spacing Criteria
0-180	1.54
90-270	1.54

Zone	Lumens
0- 5	141
5- 10	419
10- 15	697
15- 20	1004
20- 25	1408
25- 30	1794
30- 35	2079
35- 40	2151
40- 45	2143
45- 50	2011
50- 55	1834
55- 60	1567
60- 65	1118
65- 70	514
70- 75	62
75- 80	3
80- 85	2
85- 90	1



REPORT NUMBER: **AMLED87YBU1_HIGHBAY**

Lamps: Areamaster, High Bay Mount, LED Board 20 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Coefficients of Utilization – Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10		0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	0
	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100
	1	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	90	88	
	2	102	95	89	84	99	93	88	83	89	85	81	86	83	79	83	80	77	75	
	3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65	
	4	86	75	67	60	84	73	66	60	71	64	59	69	63	58	67	62	58	56	
	5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48	
	6	73	60	52	45	71	59	51	45	57	50	45	56	49	45	54	49	44	42	
	7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37	
	8	63	49	41	36	61	49	41	35	47	40	35	46	40	35	45	39	35	33	
	9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29	
	10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26	

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	5462	N.A.	28.8	90-130	3	N.A.	0
0-40	9692	N.A.	51.2	90-150	5	N.A.	0
0-60	17247	N.A.	91.1	90-180	7	N.A.	0
0-90	18946	N.A.	100.1	0-180	18933	N.A.	100
90-120	2	N.A.	0				

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A.T.X.® FDBAES LED Series Self–Contained Emergency Lighting Units

Flameproof

ATEX/IEC:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/68 - IK08

NBR IEC:
Zone 1 and 2
Ex d IIB+H_2
Ex d IIC Gb
IP66/68

Applications

- Provides adequate lighting and/or visual indication of access on exit routes during an evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- Typical applications include oil refineries, petrochemical plants, pulp and paper mills.

Features

All versions:
- Power supply 230 Vac, 50/60 Hz.
- 1 hour duration (emergency).
- Threaded access cover with O-ring seal.
- Can be maintained in hazardous areas as an internal switch cuts off battery supply automatically once the cover is unscrewed and opened.
- Battery pack.
- Escape route lighting: 2.4 V - 1.5 Ah (2 cells - Nicd)
  Space lighting: 7.2 V - 2.2 Ah (6 cells - NiMh) - Flameproof
- Padlockable switch is available on switched models which individually cuts off power supply and remote control.
- Charge indicator by 1 green LED (life time over 10 years).
- Operates in any position.
- Connection to plug-in terminal block via 2 x 5 x 2.5 mm^2 (0.003 x 0.008 x 0.004 in^2) terminals.
- Supplied with two fixing lugs.
- Automatic built-in self-test system (SATI) with memorization of tests indicated by LEDs.
- Using a microprocessor and an internal clock, the unit will carry out automatic tests.
- Weekly test: Lamp check during 6 seconds.
- Quarterly test: Emergency operation and lamp check for 1 hour.
- Can be remotely controlled and checked without switching the mains off with remote control unit from Legrand (Catalog Number 03901) or URA (Catalog Number 095448 and 095450) manufacturers.
- The remote control unit installed in a safe area or inside a flameproof box allows manual ignition of all the units (maximum 300 units) for visual inspection of their operation.
- Escape route lighting: 55 lumens, 0.50 wattage.
  Space lighting: 540 lumens, 0.95 wattage.

Addressable versions:
- Operates without additional control lines. Communication between units and the control system is realized via mains borne signals that utilize the existing electrical wiring.
- Standard control system capacity: one control system for up to 200 emergency lighting units.
- Optional increased control system capacity: booster (repeater unit) is used to increase the length of the network allowing up to 1000 emergency lighting units to be on one control system. This allows for the use of a single computer to centralize the management of the facilities emergency lighting system. For more information, please contact your local sales representative.

Standard Materials

- End caps and cover: aluminum
- O-ring seal: Nitrile
- Lens: tempered borosilicate glass
- Fixing brackets: zinc plated steel or 316 stainless steel
- Accessories: white painted galvanized steel
- Guard: zinc plated steel



FDBAESLEDEM

Options

- Addressable monitoring software, please consult your local sales representative.
- Low temperature application, please consult your local sales representative.

ATEX/IEC Certifications and Compliances

- Certification Type: FLd
  - Gas: Zone 1 - 2
    - Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - ATEX/IEC Protection: Ex d IIC
    - T Rating: T6
  - Dust: Zone 21 - 22
    - Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
    - ATEX/IEC Protection: Ex tD A21
    - Surface Temperature: T80 °C (T176 °F)
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F) ①
- CE Declaration of Conformity: 50203
- ATEX Certificate: LCIE 97/ ATEX 6012
- IECEx Certificate: IECEx LCI 04.0018
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66/68
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm^3 (122 in^3) (2 liters)
- Ex Standards EN/IEC 60079-0; 60079-1; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1; 60598-2-22-NFC 71800; 71820
- EMC Standards: EN/IEC 55015; 61547
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: FLd
  - Gas: Zone 1 and 2:
    - IEC Marking: Ex d IIB+H_2/Ex d IIC Gb
- Ambient temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- Ingress Protection: IP66/68 (10 meters)
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0492
- Impact Resistance (shock): IK08
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- For labels see *Labels for Emergency Lighting Units, ATX Self-Adhesive Signaling Labels for Emergency Lighting Units*.

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A.T.X.® FDBAES LED Series Self–Contained Emergency Lighting Units

Flameproof

ATEX/IEC:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66/68 - IK08

NBR IEC:
Zone 1 and 2
Ex d IIB+H_2
Ex d IIC Gb
IP66/68

Catalog Numbering Guide

FDBAES
Series:
FDBAES - FDBAES Series
Zone 1 and 2 – 21 and 22
ATEX/IEC Certified

N FDBAES - FDBAES Series
Zone 1 and 2
NBR IEC Certified

LED
Lamp Type:
LED

SL
SL - Space Lighting
E - Escape Route Lighting

N
Cable Entry:
N - 3/4" NPT
M - Metric M20

A
Options:
A - Addressable
W - With Switch (main supply and remote)

Type	Lamp	Lumen Output	Cable Entries	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
Unswitched Version — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug							
Space Lighting	LED Array	540 lm ①	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	**FDBAESLEDSLN**	**NFDBAESLEDSLN**
			M20			**FDBAESLEDSLM**	**NFDBAESLEDSLM**
Escape Route Lighting	LED Array	55 lm ②	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	**FDBAESLEDEN**	**NFDBAESLEDEN**
			M20			**FDBAESLEDEM**	**NFDBAESLEDEM**
Switched Version — 1 hour duration — Non-maintained — One threaded cable entry							
Space Lighting	LED Array	540 lm	3/4" NPT	10 (0.39)	40.4 (2465.4)	**FDBAESLEDSLNW**	**NFDBAESLEDSLNW**
			M20			**FDBAESLEDSLMW**	**NFDBAESLEDSLMW**
Escape Route Lighting	LED Array	55 lm	3/4" NPT	10 (0.39)	40.4 (2465.4)	**FDBAESLEDENW**	**NFDBAESLEDENW**
			M20			**FDBAESLEDEMW**	**NFDBAESLEDEMW**
Addressable and Unswitched Version — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug							
Space Lighting	LED Array	540 lm	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	**FDBAESLEDSLNA**	**NFDBAESLEDSLNA**
			M20			**FDBAESLEDSLMA**	**NFDBAESLEDSLMA**
Escape Route Lighting	LED Array	55 lm	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	**FDBAESLEDENA**	**NFDBAESLEDENA**
			M20			**FDBAESLEDEMA**	**NFDBAESLEDEMA**
Addressable and Switched Version — 1 hour duration — Non-maintained — One threaded cable entry							
Space Lighting	LED Array	540 lm	M20	10 (0.39)	40.4 (2465.4)	**FDBAESLEDSLMAW**	**NFDBAESLEDSLMAW**
Escape Route Lighting	LED Array	55 lm	M20	10 (0.39)	40.4 (2465.4)	**FDBAESLEDEMAW**	**NFDBAESLEDEMAW**

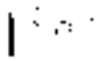
① *Value measured after 1 hour duration - required value by standard is 400 lm.*
② *Value measured after 1 hour duration - required value by standard is 45 lm.*

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A.T.X.® FDBAES LED Series Self–Contained Emergency Lighting Units

Flameproof

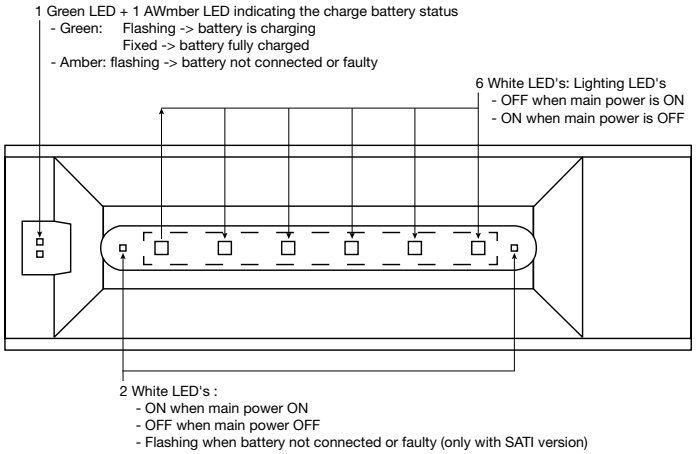
Accessories

	Description	Catalog Number IECEX	Catalog Number NBR IEC
	**Reflector**		
	White painted galvanized steel	**FDER5G**	**NFDER5G**
	**Protective Guard**		
	Zinc plated steel	**FDPG5Z**	**NFDPG5Z**
	**Fixing Brackets – set of two brackets for ease of surface installation**		
	Zinc plated steel	**FDFBZ**	**NFDFBZ**
	316 stainless steel	**FDFBS**	**NFDFBS**
	**Surface Mounting Brackets – set of two brackets for ease of installation**		
	Zinc plated steel	**FDSBZ**	**NFDSBZ**
	316 stainless steel	**FDSBS**	**NFDSBS**
	**Half Clamps – set of two**		
	Zinc plated steel versions:		
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)	**FDHC49Z**	**NFDHC49Z**
	Diameter for 2" pole: 60 mm (2.36 in)	**FDHC60Z**	**NFDHC60Z**
	316 stainless steel versions:		
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)		
	Diameter for 2" pole: 60 mm (2.36 in)	**FDHC49S**	**NFDHC49S**
	Fall Prevention Kit	**FDHC60S**	**NFDHC60S**
	1.20 m (3.94 ft) stainless steel chain	**FDSCS**	**NFDSCS**

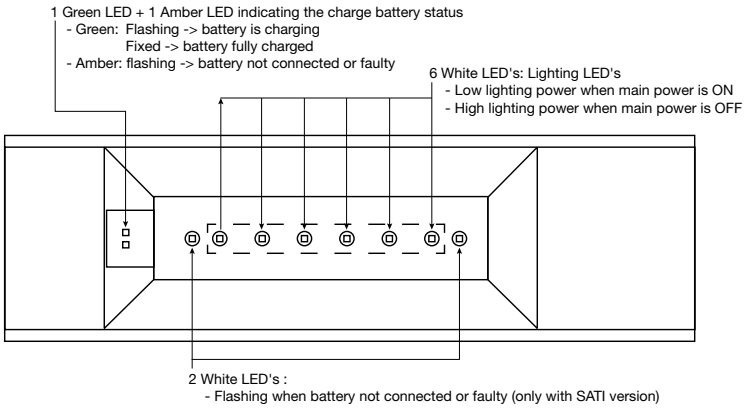
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LED Indicator

Space Lighting — Replaces Fluorescent Version



Escape Lighting — Replaces Incandescent Version



Main Status	Non Maintained	
	Space Lighting	Escape Route Lighting
Switched On	☼ ● ● ● ● ● ● ☼	● ¤ ¤ ¤ ¤ ¤ ¤ ¤ ●
Switched Off	● ☼ ☼ ☼ ☼ ☼ ☼ ●	● ☼ ☼ ☼ ☼ ☼ ☼ ●

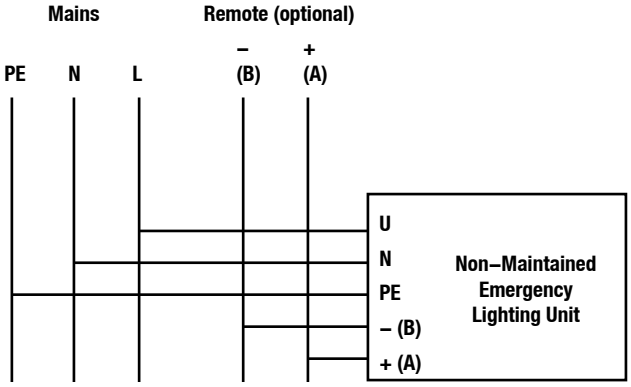
● OFF
☼ ON (high lighting power)
¤ ON (low lighting power)

Battery not Connected or Faulty	Main Power ON
	Space or Escape Route Lighting
SATI	♁ ♁ ● ● ● ● ● ● ♁
Addressable	♁ ● ● ● ● ● ● ● ●

● OFF
♁ ON — Flashing — White LED
♁ ON — Flashing — Amber LED

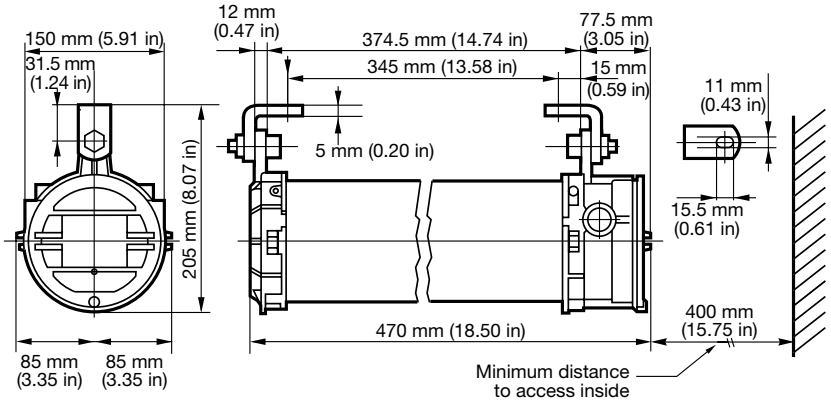
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Electrical Wiring Diagram

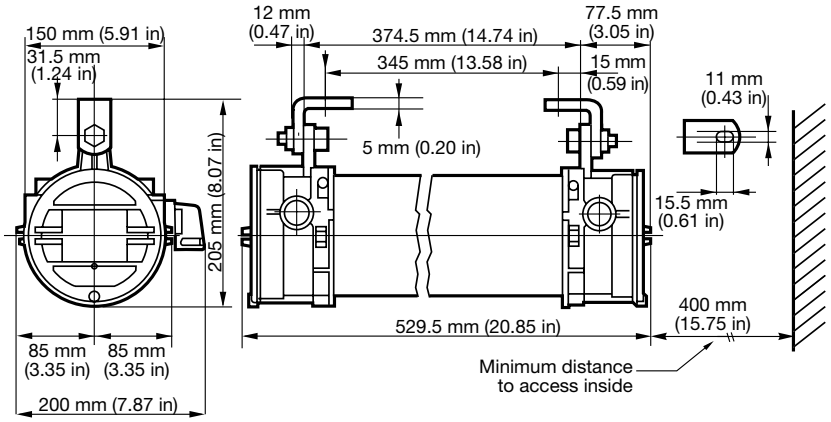


Dimensions in Millimeters (Inches)

Unswitched Versions



Switched Versions



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A.T.X.® FNES LED Series Self–Contained Emergency Lighting with Self–Test System

Zone 2 - 21 and 22

ATEX/IEC:
Zone 2 - 21 and 22
Ⓔx II 2 D and II 3 GD
IP66/67 - IK10

NBR IEC:
Zone 2 and 22
Ex nR IIC Gb
Ex tb IIIC Db
IP66/67

Applications

- Provides adequate lighting and/or visual indication of access and exit routes during an evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 2 – 21 and 22.
- Typical applications include oil refineries, petrochemical plants, pulp, paper mills and silos.

Features

- Power supply 230 Vac, 50/60 Hz.
- 3 hour duration (emergency).
- Non-maintained.
- Operates in any position.
- Battery pack.
  - — Escape route lighting: 2.4 V - 1.5 Ah (2 cells - Nicd).
  - — Space lighting: 7.2 V - 2.2 Ah (6 cells - NiMh) - Flameproof.
- Open and close using an Allen key (size 10) or a 6 mm flat screwdriver.
- Connection to plug-in terminal block via 2 x 5 x 2.5 mm^2 (0.003 x 0.008 x 0.004 in^2) terminals.
- Two M20 clearance holes supplied with one cable gland — diameter 6.5 to 14.5 mm (0.26 to 0.57 in), one blanking plug and two locknuts.
- Charge indicator by green LED (lifetime over 10 years).
- Automatic built-in self-test system (SATI) with memorization of tests indicated by LEDs .
- Using a microprocessor and an internal clock, the unit will carry out automatic tests.
- Weekly test: Lamp check duration 6 seconds.
- Quarterly test: Emergency operation and lamp check for 1 hour.
- Can be remotely controlled and checked without switching the mains off with remote control unit from Legrand (Catalog Number 03901) or URA (Catalog Number 095448 and 095450) manufacturers.
- The remote control unit installed in a safe area or inside a flameproof box allows manual ignition of all the units (max. 300 units) for visual inspection of their operation.
- Escape route lighting: 55 lumens, 0.50 wattage.
- Space lighting: 540 lumens, 0.95 wattage.

Standard Materials

- Body: fiberglass reinforced polyester
- Diffuser (hinged to body): polycarbonate
- Gasket: elastomer
- Fixing brackets: zinc plated steel, gray painted aluminum or 316 stainless steel
- Cable gland and blanking plug: polyamide
- Locknut: nickel-plated brass

Options

- Addressable versions:
  - — Operates without additional control lines. Communication between units and the control system is realized via mains borne signals that utilize the existing electrical wiring.
  - — Standard control system capacity: one control system for up to 200 emergency lighting units.
  - — Optional increased control system capacity: booster (repeater unit) is used to increase the length of the network allowing up to 1000 emergency lighting units to be on one control system. This allows for the use of a single computer to centralize the management of the facilities emergency lighting system. For more information, please contact your local sales representative.
  - — Addressable monitoring software is available, please consult your local sales representative.
- Low temperature application, please consult your local sales representative.



FNES LED

ATEX/IEC Certifications and Compliances

- Certification Type: FLn
  - — Gas: Zone 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 3 G
    - – ATEX/IEC Protection: Ex nR II
    - – T Rating: T6
  - — Dust: Zone 21 - 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
    - – ATEX/IEC Protection: Ex tD A21 and Ex tD A22
    - – Surface Temperature: T75 °C (T167 °F)
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F) ①
- CE Declaration of Conformity: 50212 (Zone 2-22) and 50227 (Zone 21)
- ATEX Certificate: LCIE 03 ATEX 6072 (Zone 2-22), LCIE 02 ATEX 6067 (Zone 21)
- IECEx Certificate: IECEx LCI 04.0021 (Zone 2-22)
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66/67
- Impact Resistance (shock): IK10
- Ex standards: EN/IEC 60079-0; 60079-15/61241-0; 61241-1
- Product standards: EN/IEC 60598-1; 60598-2-22
- EMC standards: EN/IEC 55015; 61547
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: FLn
  - — Gas: Zone 2
    - – IEC Marking: Ex nR IIC
    - – T Rating T4
  - — Dust: Zone 21 - 22
    - – IEC Marking: Ex tb IIIC
    - – Surface temperature: 135°C (275°F)
- Ambient temperature: -20°C to +55°C (-4°F to +131°F)
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 11.0815
- Ingress Protection: IP66/67
- Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-15, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- For labels see *Labels for Emergency Lighting Units, ATX Self-Adhesive Signaling Labels for Emergency Lighting Units*.

① *Optimum operating temperature for battery is -5 °C to +30 °C (+23 °F to +86 °F).*

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A.T.X.® FNES LED Series Self–Contained Emergency Lighting with Self–Test System

Zone 2 - 21 and 22

ATEX/IEC:
Zone 2 - 21 and 22
Ⓔx II 2 D and II 3 GD
IP66/67 - IK10

NBR IEC:
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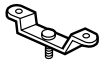
Catalog Numbering Guide

FNES	LED	SL	U	A
Series: FNES - FNES Series Zone 2 – 21 and 22 ATEX/IEC Certified N FNES - FNES Series Zone 2 – 21 and 22 NBR IEC Certified	Lamp Type: LED	SL - Space Lighting E - Escape Route Lighting	Cable Entry: A - Armored M20 U - Unarmored M20 N - Unarmored M25	Options: A - Addressable W - With Switch (Automatic mains cut-off)

Unswitched Version – 1 hour duration - Non-maintained - Two Unarmored M20 clearance entries

Type	Lamp Type	Lumen Output	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ATEX/IEC	Catalog Number NBR IEC
Space Lighting	LED Array	540 lm	7.2 (15.87)	32.3 (1971.1)	**FNESLEDSLU**	**NFNESLEDSLU**
Escape Route Lighting		55 lm	7.2 (15.87)	32.3 (1971.1)	**FNESLEDEU**	**NFNESLEDEU**

Accessories

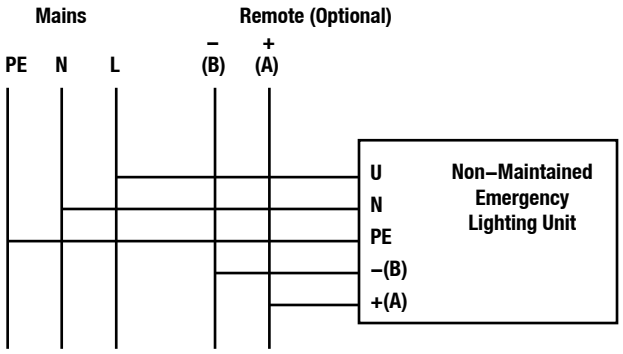
	Description	Catalog Number ATEX/IEC	Catalog Number NBR IEC
	**Half Clamps Brackets - Set of Two**		
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)		
	Zinc plated steel	**FEHC49Z**	**NFEHC49Z**
	316 stainless steel	**FEHC49S**	**NFEHC49S**
	Diameter for 2" pole: 60 mm (2.36 in)		
	Zinc plated steel	**FEHC60Z**	**NFEHC60Z**
	316 stainless steel	**FEHC60S**	**NFEHC60S**
	**M8 Ring Bolts - Set of Two**		
	Zinc plated steel	**FERBM8Z**	**NFERBM8Z**
	**Hinged Brackets - Set of two brackets for adjusting luminaire when wall-mounted**		
	Aluminium (gray painted)	**FEHBA**	**NFEHBA**
	316 stainless steel	**FEHBS**	**NFEHBS**
	**Brackets for Surface Mounting - Set of two**		
	Aluminium (gray painted)	**FESBA**	**NFESBA**
	316 stainless steel	**FESBS**	**NFESBS**
	**Fixing Brackets - Set of two brackets for ease of surface installation**		
	Zinc plated steel	**FEFBZ**	**NFEFBZ**
	316 stainless steel	**FEFBS**	**NFEFBS**

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A.T.X.® FNES LED Series Self–Contained Emergency Lighting with Self–Test System

Zone 2 - 21 and 22

Electrical Wiring Diagram



LED Indicator

Main Status	Non Maintained	
	Space Lighting	Escape Route Lighting
Switched On	● ● ● ● ● ● ☼	● ¤ ¤ ¤ ¤ ¤ ¤ ●
Switched Off	● ☼ ☼ ☼ ☼ ☼ ☼ ●	● ☼ ☼ ☼ ☼ ☼ ☼ ●

● OFF

☼ ON (high lighting power)

¤ ON (low lighting power)

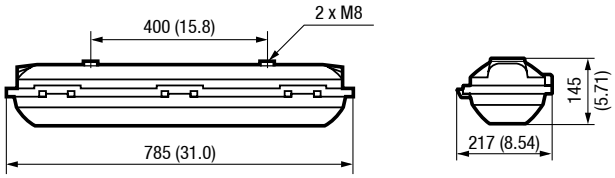
Battery not Connected or Faulty	Main Power ON
	Space or Escape Route Lighting
SATI	▲ ♙ ● ● ● ● ● ● ♙
Addressable	▲ ● ● ● ● ● ● ● ●

● OFF

♙ ON — Flashing — White LED

▲ ON — Flashing — Amber LED

Dimensions in Millimeters (Inches)



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Nutsteel® NR850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

Applications

- Suitable for use in areas where there is the presence of flammable gases.
- Areas of low clearance, with low ceilings or areas in which the weight of the luminaire should be minimal.
- Environments with harsh climatic conditions, mixture of gases, dust, corrosive atmospheres or high temperature.
- Typical applications include:
  - — Chemical plants
  - — Petrochemical plants
  - — Pharmaceuticals facilities
  - — Food processing facilities
  - — Paint and varnish facilities
  - — Flammable material storage facilities

Features

- Compact, light weight, low profile design is suited for low mounting heights.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs.
- Locking system ensures the IP66 rating by sealing the screws, mounting hoods and housing.
- Easy access to components, reducing installation time and errors.
- Manufactured in six models:
  - — Ceiling, 30° wall and 90° wall mounts have four threaded entries.
  - — Pendant, 30° stanchion and 90° stanchion have one threaded entry.
- Standard voltage: 220 V, 60 Hz; optional voltage 230/240 V, 50 Hz.
- Impact and thermal shock-resistant globe threads directly into ballast housing.
- Ballast with high power factor > 0.92.
- Supplied with ballast mounted.
- Supplied with guard.
- NPT threads standard. BSP and metric threads available.
- Optional NEREA reflector is lightweight, durable and corrosion-resistant.
- Lamp not supplied.
- All entries must be sealed with threaded cable glands or sealing unit to prevent the passage of gases.
- Ex nA nR technology prevents the entry of gases and vapors in the chamber of the globe.
- Protection Ex nA: devices or circuits that in normal operating conditions, produce no arc, spark or high temperature.
- Protection Ex nR (restriction of entry of gas or vapor): equipment designed and built in such a way that causes no spark or external hot surface, avoiding the risk of explosion when installed in explosive Zone 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.

Standard Material

- Body and guard: copperfree cast aluminum alloy
- Globe: impact and thermal shock-resistant threaded glass
- Socket: strengthened porcelain
- Gasket: silicone
- Screws and washers: external fixation of AISI 304 stainless steel
- NEREA reflector: anodized aluminum



Pendant Mount



Optional NEREA Reflector

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NR850A**B**3H25N.
- For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NR850A**M**3H25N.
- For optional reflector, add the letter **F** to the end of the catalog number; example: NR850AN3H25N**F**.
- For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NR850AN3H25NE**A**.
- For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NR850AN3H25NEA**1**.
- For 230/240 V, 50 Hz ballast, add suffix **-235**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- INMETRO Certificate: TÜV 12.0288 X
- Ex Standards: ABNT NBR IEC 60079-0; 60079-15; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- Unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA (not supplied).

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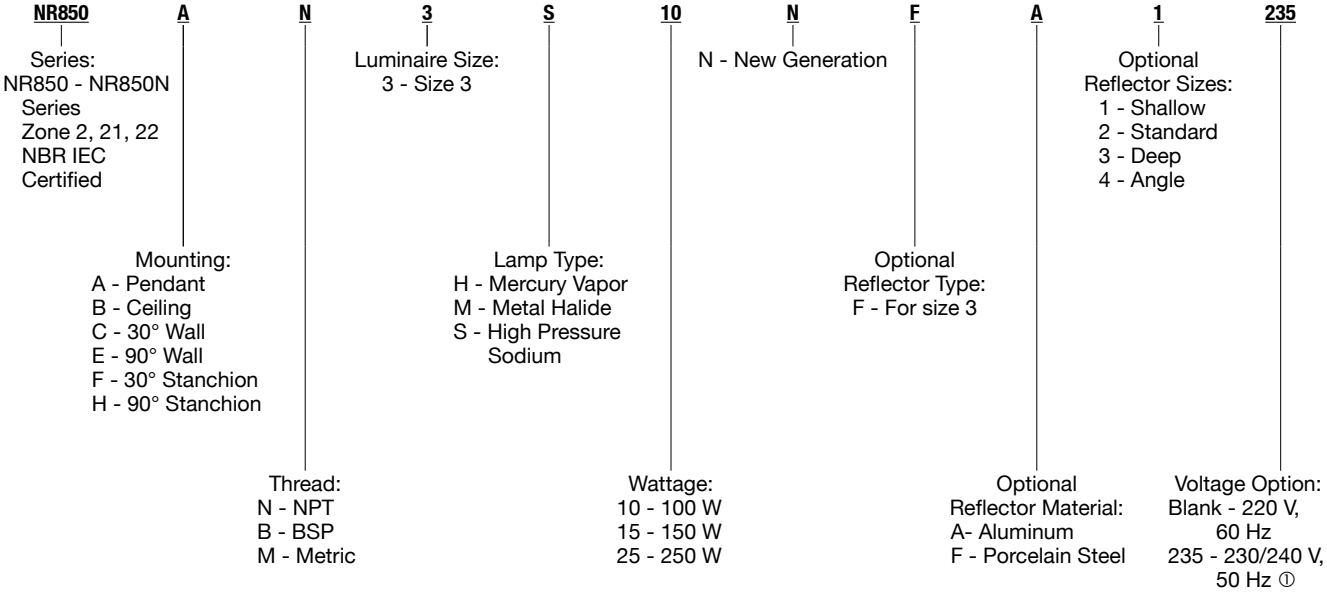
Nutsteel® NR850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

Order using catalog numbering guide below or select catalog number from tables below and on following pages.

Catalog Numbering Guide



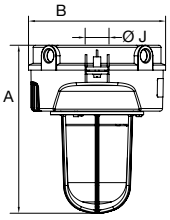
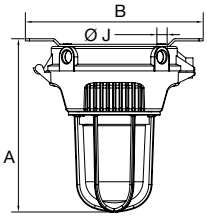
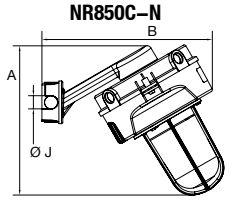
*① For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 250 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NR850AN3H25N235** and standard reflector catalog number **NEREA205**.*

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Nutsteel® NR850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

	Lamp Type and Wattage					Threaded	Dimensions mm (in)				
	Mercury Vapor	HPS	Metal Halide	Socket	T Rating	Entries ø J ①	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①②③
Pendant											
NR850A–N 	250	—	—	E-40	T3	3/4"	372 (14.65)	330 (12.99)	11.09 (24.45)	45.40 (2770.48)	**NR850AN3H25N**
	—	100	—	E-40	T4	3/4"	372 (14.65)	330 (12.99)	10.01 (22.07)	45.40 (2770.48)	**NR850AN3S10N**
	—	150	—	E-40	T4	3/4"	372 (14.65)	330 (12.99)	11.24 (26.99)	45.40 (2770.48)	**NR850AN3S15N**
	—	250	—	E-40	T3	3/4"	372 (14.65)	330 (12.99)	12.00 (26.45)	45.40 (2770.48)	**NR850AN3S25N**
	—	—	250	E-40	T3	3/4"	372 (14.65)	330 (12.99)	12.00 (26.45)	45.40 (2770.48)	**NR850AN3M25N**
Ceiling											
NR850B–N 	250	—	—	E-40	T3	3/4"	390 (15.35)	420 (16.54)	11.09 (24.45)	45.40 (2770.48)	**NR850BN3H25N**
	—	100	—	E-40	T4	3/4"	390 (15.35)	420 (16.54)	10.01 (22.07)	45.40 (2770.48)	**NR850BN3S10N**
	—	150	—	E-40	T4	3/4"	390 (15.35)	420 (16.54)	11.24 (26.99)	45.40 (2770.48)	**NR850BN3S15N**
	—	250	—	E-40	T3	3/4"	390 (15.35)	420 (16.54)	12.00 (26.45)	45.40 (2770.48)	**NR850BN3S25N**
	—	—	250	E-40	T3	3/4"	390 (15.35)	420 (16.54)	12.00 (26.45)	45.40 (2770.48)	**NR850BN3M25N**
30° Wall											
NR850C–N 	250	—	—	E-40	T3	3/4"	397 (15.63)	456 (17.95)	12.72 (28.04)	48.31 (2948.06)	**NR850CN3H25N**
	—	100	—	E-40	T4	3/4"	397 (15.63)	456 (17.95)	11.64 (25.66)	48.31 (2948.06)	**NR850CN3S10N**
	—	150	—	E-40	T4	3/4"	397 (15.63)	456 (17.95)	12.87 (28.37)	48.31 (2948.06)	**NR850CN3S15N**
	—	250	—	E-40	T3	3/4"	397 (15.63)	456 (17.95)	13.63 (30.05)	48.31 (2948.06)	**NR850CN3S25N**
	—	—	250	E-40	T3	3/4"	397 (15.63)	456 (17.95)	13.63 (30.05)	48.31 (2948.06)	**NR850CN3M25N**

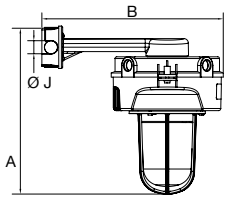
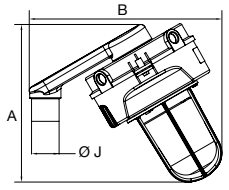
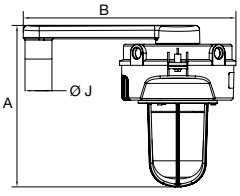
① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NR850A**B**3H25N.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NR850A**M**3H25N.*
*② For optional reflector, add the letter **F** to the end of the catalog number; example: NR850AN3H25N**F**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NR850AN3H25NF**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NR850AN3H25NFA**1**.*
*③ For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 250 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NR850AN3H25N235** and standard reflector catalog number **NEREA205**.*

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Nutsteel® NR850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

	Lamp Type and Wattage					Threaded	Dimensions mm (in)				
	Mercury Vapor	HPS	Metal Halide	Socket	T Rating	Entries ø J ①	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①②③
90° Wall											
NR850E–N 	250	—	—	E-40	T3	3/4”	444 (17.48)	455 (17.91)	12.82 (28.26)	48.69 (2971.25)	**NR850EN3H25N**
	—	100	—	E-40	T4	3/4”	444 (17.48)	455 (17.91)	11.74 (25.88)	48.69 (2971.25)	**NR850EN3S10N**
	—	150	—	E-40	T4	3/4”	444 (17.48)	455 (17.91)	12.97 (28.59)	48.69 (2971.25)	**NR850EN3S15N**
	—	250	—	E-40	T3	3/4”	444 (17.48)	455 (17.91)	13.73 (30.27)	48.69 (2971.25)	**NR850EN3S25N**
	—	—	250	E-40	T3	3/4”	444 (17.48)	455 (17.91)	13.73 (30.27)	48.69 (2971.25)	**NR850EN3M25N**
30° Stanchion											
NR850F–N 	250	—	—	E-40	T3	1-1/2”	415 (16.34)	457 (17.99)	12.66 (27.91)	48.15 (2938.29)	**NR850FN3H25N**
	—	100	—	E-40	T4	1-1/2”	415 (16.34)	457 (17.99)	11.58 (25.53)	48.15 (2938.29)	**NR850FN3S10N**
	—	150	—	E-40	T4	1-1/2”	415 (16.34)	457 (17.99)	12.81 (28.24)	48.15 (2938.29)	**NR850FN3S15N**
	—	250	—	E-40	T3	1-1/2”	415 (16.34)	457 (17.99)	13.57 (29.92)	48.15 (2938.29)	**NR850FN3S25N**
	—	—	250	E-40	T3	1-1/2”	415 (16.34)	457 (17.99)	13.57 (29.92)	48.15 (2938.29)	**NR850FN3M25N**
90° Stanchion											
NR850H–N 	250	—	—	E-40	T3	1-1/2”	415 (16.34)	509 (20.04)	12.79 (28.20)	48.64 (2968.19)	**NR850HN3H25N**
	—	100	—	E-40	T4	1-1/2”	415 (16.34)	509 (20.04)	11.71 (25.82)	48.64 (2968.19)	**NR850HN3S10N**
	—	150	—	E-40	T4	1-1/2”	415 (16.34)	509 (20.04)	12.94 (28.53)	48.64 (2968.19)	**NR850HN3S15N**
	—	250	—	E-40	T3	1-1/2”	415 (16.34)	509 (20.04)	13.70 (30.20)	48.64 (2968.19)	**NR850HN3S25N**
	—	—	250	E-40	T3	1-1/2”	415 (16.34)	509 (20.04)	13.70 (30.20)	48.64 (2968.19)	**NR850HN3M25N**

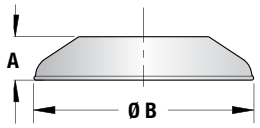
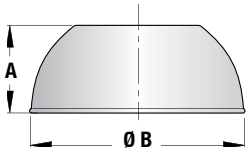
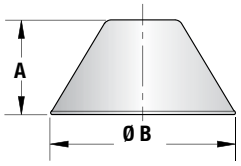
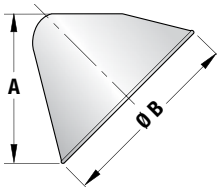
① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NR850A**B**3H25N.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NR850A**M**3H25N.*
*② For optional reflector, add the letter **F** to the end of the catalog number; example: NR850AN3H25N**F**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NR850AN3H25NF**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NR850AN3H25NFA**1**.*
*③ For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 250 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NR850AN3H25N235** and standard reflector catalog number **NEREA205**.*

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Nutsteel® NR850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

Reflectors

	Luminaire Type			Dimension mm (in) A	Dimension mm (in) Ø B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Shallow Dome								
	NR850A-N NR850E-N	NR850B-N NR850F-N	NR850C-N NR850H-N	90 (3.54)	530 (20.87)	0.82 (1.81)	24.70 (1507.23)	**NEREA105**
Standard Dome								
	NR850A-N NR850E-N	NR850B-N NR850F-N	NR850C-N NR850H-N	175 (6.89)	530 (20.87)	1.20 (2.65)	50.00 (3051.19)	**NEREA205**
Deep Dome								
	NR850A-N NR850E-N	NR850B-N NR850F-N	NR850C-N NR850H-N	250 (9.84)	530 (20.87)	1.36 (3.00)	71.50 (4363.20)	**NEREA305**
Angle								
	NR850A-N NR850E-N	NR850B-N NR850F-N	NR850C-N NR850H-N	244 (9.60)	530 (20.87)	1.18 (2.60)	71.50 (4363.20)	**NEREA405**

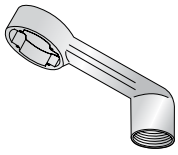
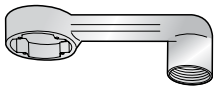
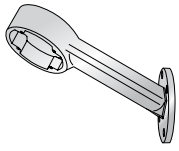
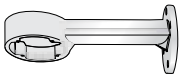
① *For reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position. Example: NERE**F**205.*

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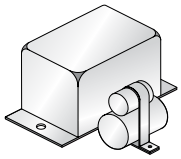
Nutsteel® NR850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

Accessories and Replacement Parts

	Description	Luminaire Type			Catalog Number
	Protective Guard	NR850A-N NR850E-N	NR850B-N NR850F-N	NR850C-N NR850H-N	**NFGRD853TN**
	Glass Globe	NR850A-N NR850E-N	NR850B-N NR850F-N	NR850C-N NR850H-N	**NXGLBN850N3**
	Mounting Hood with 4 Entries	NR850C-N		3/4" NPT	**NFCXA85TN**
				3/4" BSP	**NFCXA85TB**
		NR850E-N		M25	**NFCXA85TM**
	30° Stanchion Mounting Bracket	NR850F-N		1-1/2" NPT	**NFPES85FTN**
				1-1/2" BSP	**NFPES85FTB**
				M50	**NFPES85FTM**
	90° Stanchion Mounting Bracket	NR850H-N		1-1/2" NPT	**NFPES85HTN**
				1-1/2" BSP	**NFPES85HTB**
				M50	**NFPES85HTM**
	30° Wall Mounting Bracket	NR850C-N			**NFPES85CTN**
	90° Wall Mounting Bracket	NR850E-N			**NFPES85ETN**

High Power Factor Ballast (60 Hz) — For Use With Any Mounting Hood

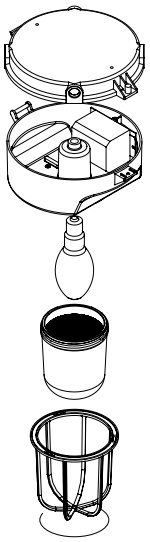
	Mercury Vapor 250 W	**NFCHN850H25**
	Metal Halide 250 W	**NFCHN850M25**
	High Pressure Sodium 100 W	**NFCHN850S10**
	High Pressure Sodium 150 W	**NFCHN850S15**
	High Pressure Sodium 250 W	**NFCHN850S25**

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Nutsteel® NR850–N Series Luminaires

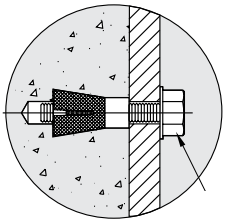
Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

Installation and Maintenance



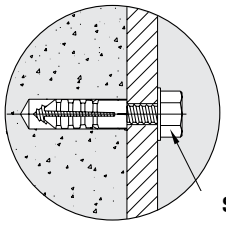
For Affixing to Concrete

Steel anchor bolt (not included)



For Affixing to Masonry

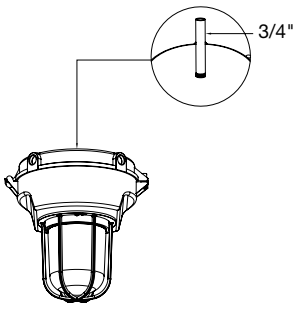
Nylon bushing (not included)



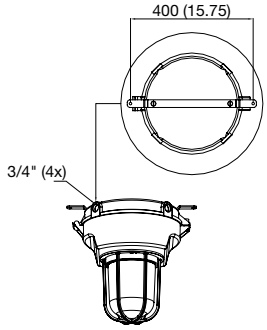
Note: Equipment for installation in explosive atmospheres (Zone 2) is supplied assembled with their ballast to retain equipment certification.

Mounting Details ① — Dimensions in Millimeters (Inches)

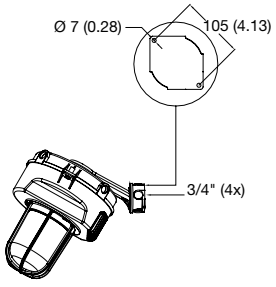
NR850A–N — Pendant



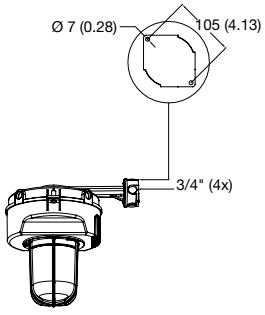
NR850B–N — Ceiling



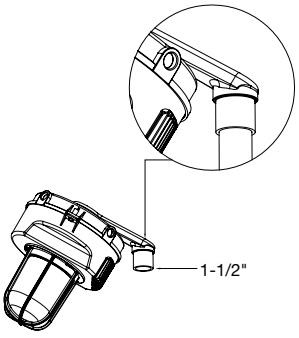
NR850C–N — 30° Wall



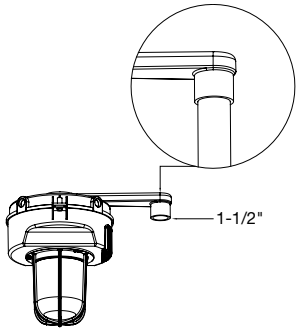
NR850E–N — 90° Wall



NR850F–N — 30° Stanchion



NR850H–N — 90° Stanchion



① *Any unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA.*

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Nutsteel® NR850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. 100 W High Pressure Sodium

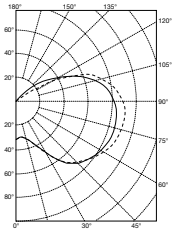
Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

Photometric Data

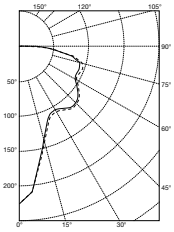
NR850-N

	0–180	90–270
0	31.76	31.76
5	29.69	30.22
10	30.99	30.49
15	32.37	32.14
20	34.75	35.11
25	39.39	40.22
30	47.99	47.99
35	58.34	59.00
40	66.53	67.73
45	72.04	73.27
50	76.56	77.04
55	80.86	79.96
60	84.81	82.44
65	87.78	84.42
70	89.99	85.53
75	91.27	85.63
80	91.93	85.42
85	91.58	84.30
90	89.78	82.21
95	86.22	79.15
100	80.87	74.43
105	73.74	67.67
110	64.79	59.30
115	49.38	49.80
120	31.01	39.56
125	15.18	29.43
130	5.26	19.57
135	1.79	9.61
140	1.10	3.16
145	0.71	1.10
150	0.46	0.67
155	0.31	0.37
160	0.29	0.29
165	0.27	0.29
170	0	0
175	0	0
180	0	0



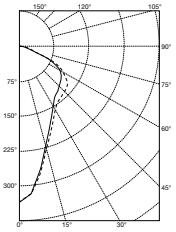
NR850-N with NEREA105

	0–180	90–270
0	226.37	226.37
5	210.51	210.55
10	174.80	173.38
15	141.69	140.01
20	120.48	118.12
25	109.12	106.59
30	107.44	104.17
35	111.77	109.11
40	117.24	115.27
45	117.36	115.92
50	114.21	111.71
55	104.50	102.17
60	94.23	92.43
65	94.48	92.08
70	96.57	92.60
75	93.83	88.99
80	79.57	76.06
85	46.36	47.54
90	19.73	18.86
95	4.89	4.72
100	1.75	1.83
105	1.46	1.52
110	0.94	0.89
115	0.52	0.54
120	0.48	0.48
125	0.48	0.48
130	0.48	0.48
135	0.50	0.48
140	0.48	0.48
145	0.50	0.50
150	0.50	0.52
155	0.52	0.52
160	0.54	0.54
165	0.58	0.58
170	0	0
175	0	0
180	0	0



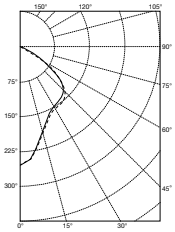
NR850-N with NEREA205

	0–180	90–270
0	337.01	337.01
5	319.32	319.32
10	276.13	276.13
15	231.51	231.51
20	200.27	200.27
25	176.15	176.15
30	156.33	156.33
35	146.49	146.49
40	143.09	143.09
45	140.02	140.02
50	135.22	135.22
55	126.45	126.45
60	109.72	109.72
65	76.26	76.26
70	41.20	41.20
75	18.25	18.25
80	7.96	7.96
85	3.74	3.74
90	0.88	0.88
95	0.31	0.31
100	0.21	0.21
105	0.27	0.27
110	0.31	0.31
115	0.37	0.37
120	0.44	0.44
125	0.48	0.48
130	0.52	0.52
135	0.56	0.56
140	0.58	0.58
145	0.62	0.62
150	0.67	0.67
155	0.71	0.71
160	0.77	0.77
165	0.83	0.83
170	0	0
175	0	0
180	0	0



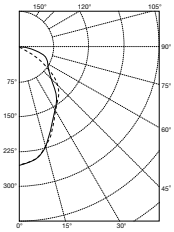
NR850-N with NEREA305

	0–180	90–270
0	256.50	256.50
5	244.99	244.38
10	218.93	216.97
15	189.61	189.05
20	170.10	167.59
25	157.83	154.83
30	154.85	148.25
35	152.78	145.36
40	148.08	141.66
45	137.67	132.52
50	114.75	114.20
55	74.72	81.14
60	42.65	45.92
65	22.40	23.65
70	10.76	11.10
75	4.64	4.87
80	2.03	2.04
85	0.88	0.87
90	0.19	0.23
95	0.15	0.15
100	0.17	0.17
105	0.17	0.17
110	0.21	0.21
115	0.27	0.25
120	0.31	0.31
125	0.37	0.40
130	0.44	0.44
135	0.50	0.48
140	0.54	0.54
145	0.58	0.58
150	0.62	0.62
155	0.67	0.69
160	0.71	0.73
165	0.75	0.77
170	0	0
175	0	0
180	0	0



NR850-N with NEREA405

	0–180	90–270
0	255.78	255.78
5	250.03	251.73
10	240.45	242.52
15	223.51	224.17
20	203.44	197.58
25	178.32	173.91
30	158.04	157.31
35	145.91	143.11
40	133.32	121.77
45	120.47	100.89
50	100.66	87.07
55	70.94	78.19
60	41.89	72.10
65	21.84	67.69
70	11.19	60.70
75	5.97	46.87
80	2.90	29.02
85	1.02	14.07
90	0.27	6.16
95	0.17	3.83
100	0.17	2.52
105	0.19	1.31
110	0.23	0.52
115	0.25	0.33
120	0.31	0.35
125	0.37	0.40
130	0.42	0.42
135	0.46	0.48
140	0.54	0.54
145	0.58	0.58
150	0.62	0.64
155	0.71	0.71
160	0.77	0.77
165	0.81	0.83
170	0	0
175	0	0
180	0	0



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Nutsteel® NR850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. 250 W Mercury Vapor

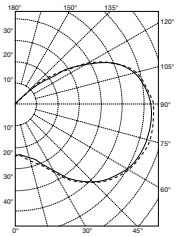
Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

Photometric Data

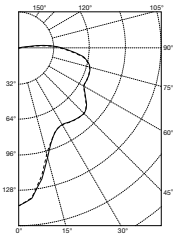
NR850-N

	0–180	90–270
0	23.88	23.88
5	23.79	23.65
10	25.19	24.62
15	26.92	25.71
20	29.23	27.59
25	31.91	30.98
30	36.90	36.03
35	42.57	41.76
40	47.43	46.98
45	52.04	51.50
50	55.70	55.11
55	58.94	58.15
60	61.42	60.57
65	62.94	62.26
70	64.29	63.37
75	64.88	64.03
80	65.37	64.21
85	65.16	64.22
90	64.65	63.38
95	62.78	62.38
100	60.83	60.48
105	57.87	57.82
110	53.92	53.79
115	47.88	47.37
120	39.54	37.99
125	29.72	27.65
130	19.82	17.40
135	11.13	8.65
140	4.62	2.81
145	1.28	0.88
150	0.44	0.44
155	0.26	0.27
160	0.21	0.21
165	0.20	0.21
170	0	0
175	0	0
180	0	0



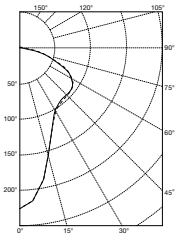
NR850-N with NEREA105

	0–180	90–270
0	142.38	142.38
5	135.07	136.03
10	118.46	120.86
15	100.23	102.93
20	87.50	89.04
25	80.90	81.64
30	80.19	79.91
35	82.26	81.47
40	84.21	83.67
45	84.59	84.13
50	81.10	80.66
55	74.10	74.10
60	68.47	68.45
65	67.88	67.87
70	68.43	68.19
75	67.36	67.08
80	63.51	63.38
85	54.62	54.60
90	39.41	39.72
95	23.42	23.88
100	10.76	10.72
105	2.99	2.89
110	0.81	0.81
115	0.41	0.44
120	0.33	0.35
125	0.35	0.35
130	0.35	0.35
135	0.35	0.35
140	0.35	0.35
145	0.35	0.36
150	0.36	0.36
155	0.36	0.38
160	0.38	0.38
165	0.40	0.41
170	0	0
175	0	0
180	0	0



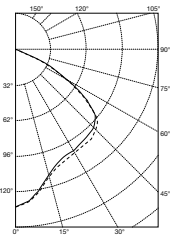
NR850-N with NEREA205

	0–180	90–270
0	226.28	226.28
5	216.28	215.28
10	189.41	190.59
15	157.00	158.61
20	129.83	131.00
25	112.43	111.98
30	103.35	100.55
35	98.69	96.08
40	96.41	93.83
45	95.10	93.77
50	94.92	94.09
55	92.05	91.30
60	86.47	85.79
65	75.14	74.41
70	57.82	56.55
75	37.39	36.16
80	19.23	18.36
85	6.98	6.37
90	1.01	0.99
95	0.40	0.38
100	0.20	0.20
105	0.24	0.24
110	0.29	0.29
115	0.32	0.32
120	0.33	0.35
125	0.36	0.36
130	0.36	0.38
135	0.40	0.40
140	0.40	0.41
145	0.43	0.43
150	0.46	0.46
155	0.49	0.49
160	0.52	0.52
165	0.55	0.55
170	0	0
175	0	0
180	0	0



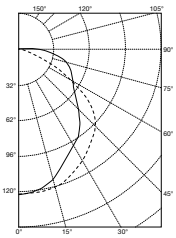
NR850-N with NEREA305

	0–180	90–270
0	141.22	141.22
5	137.62	137.26
10	128.97	128.02
15	118.26	117.32
20	112.07	109.25
25	108.87	106.17
30	107.88	105.41
35	105.97	102.73
40	105.46	101.86
45	102.78	99.96
50	96.15	93.91
55	78.81	79.38
60	54.86	56.81
65	30.88	32.95
70	13.52	14.70
75	4.87	5.17
80	2.11	2.12
85	0.89	0.91
90	0.18	0.18
95	0.12	0.12
100	0.12	0.12
105	0.15	0.15
110	0.18	0.18
115	0.23	0.24
120	0.27	0.29
125	0.32	0.32
130	0.35	0.35
135	0.38	0.38
140	0.40	0.41
145	0.43	0.43
150	0.43	0.44
155	0.46	0.46
160	0.47	0.49
165	0.49	0.49
170	0	0
175	0	0
180	0	0



NR850-N with NEREA405

	0–180	90–270
0	131.57	131.57
5	130.78	130.31
10	130.73	127.69
15	129.42	122.40
20	126.89	113.95
25	120.93	106.45
30	115.91	100.68
35	110.80	96.01
40	105.17	87.26
45	98.92	77.44
50	89.38	68.16
55	73.89	61.25
60	54.54	57.13
65	35.48	53.34
70	19.87	49.96
75	8.83	44.98
80	3.67	37.27
85	1.18	27.02
90	0.22	16.80
95	0.12	8.51
100	0.14	3.54
105	0.17	1.49
110	0.20	0.59
115	0.24	0.27
120	0.27	0.27
125	0.30	0.30
130	0.35	0.33
135	0.38	0.35
140	0.41	0.40
145	0.43	0.41
150	0.44	0.44
155	0.47	0.46
160	0.49	0.49
165	0.49	0.50
170	0	0
175	0	0
180	0	0



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Nutsteel® NR850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. 250 W Metal Halide

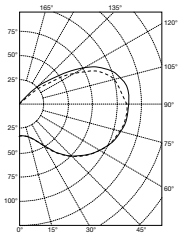
Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

Photometric Data

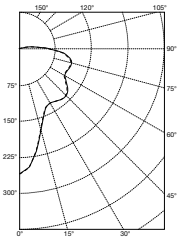
NR850-N

	0–180	90–270
0	32.88	32.88
5	32.65	32.30
10	33.34	33.46
15	34.61	34.95
20	37.22	37.09
25	41.31	40.59
30	48.64	47.83
35	58.90	57.53
40	68.28	66.96
45	76.24	75.14
50	83.52	82.89
55	90.23	89.82
60	95.88	96.06
65	100.75	101.21
70	104.82	105.75
75	108.01	109.12
80	110.26	111.76
85	111.49	113.06
90	111.37	113.12
95	107.27	114.50
100	105.47	112.58
105	101.48	108.49
110	96.30	102.11
115	83.26	91.59
120	65.44	76.39
125	45.97	58.29
130	27.19	39.65
135	12.41	23.62
140	3.73	11.45
145	1.12	3.74
150	0.50	0.82
155	0.29	0.37
160	0.22	0.23
165	0.21	0.21
170	0	0
175	0	0
180	0	0



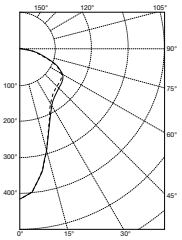
NR850-N with NEREA105

	0–180	90–270
0	261.68	261.68
5	248.99	247.31
10	215.18	213.57
15	177.68	175.80
20	149.49	148.91
25	134.77	134.11
30	130.95	130.30
35	134.32	133.13
40	138.37	137.48
45	137.02	137.92
50	130.28	132.04
55	118.37	119.09
60	108.72	109.18
65	109.95	110.49
70	112.54	113.32
75	112.42	112.99
80	106.47	106.24
85	89.62	87.85
90	60.76	58.56
95	34.25	33.92
100	16.36	16.36
105	5.60	5.71
110	1.76	1.87
115	1.21	1.21
120	1.10	1.10
125	1.10	1.10
130	1.10	1.10
135	1.10	1.10
140	1.10	1.10
145	1.10	1.10
150	1.10	1.10
155	1.10	1.10
160	1.10	1.10
165	1.10	1.21
170	0	0
175	0	0
180	0	0



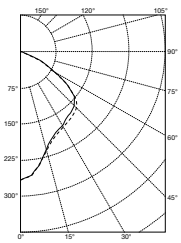
NR850-N with NEREA205

	0–180	90–270
0	418.25	418.25
5	400.96	398.35
10	350.88	350.88
15	287.75	288.75
20	233.77	236.58
25	195.74	199.94
30	170.98	177.30
35	157.15	164.94
40	149.46	158.38
45	145.33	153.56
50	144.88	150.94
55	140.08	145.25
60	130.16	133.77
65	111.53	112.44
70	81.20	81.49
75	50.30	50.64
80	26.99	27.23
85	10.82	11.27
90	2.34	2.19
95	0.99	1.10
100	0.88	0.88
105	0.88	0.88
110	0.88	0.88
115	1.10	1.10
120	1.10	1.10
125	1.10	1.10
130	1.10	1.10
135	1.10	1.10
140	1.10	1.10
145	1.32	1.32
150	1.32	1.32
155	1.32	1.32
160	1.32	1.43
165	1.54	1.54
170	0	0
175	0	0
180	0	0



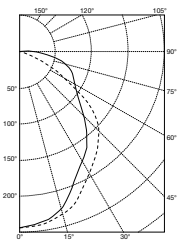
NR850-N with NEREA305

	0–180	90–270
0	267.57	267.57
5	259.65	258.69
10	237.44	237.00
15	212.07	209.78
20	196.21	191.90
25	186.58	182.03
30	180.57	177.59
35	174.91	167.94
40	172.08	164.58
45	165.51	158.08
50	150.21	145.60
55	118.27	118.39
60	80.09	81.42
65	46.33	48.46
70	21.41	23.63
75	8.61	8.67
80	3.96	3.69
85	2.04	1.84
90	0.68	0.65
95	0.66	0.66
100	0.66	0.66
105	0.77	0.88
110	0.88	0.88
115	0.88	0.88
120	0.88	0.99
125	0.99	1.10
130	1.10	1.10
135	1.10	1.10
140	1.10	1.10
145	1.10	1.21
150	1.32	1.32
155	1.32	1.32
160	1.32	1.32
165	1.32	1.32
170	0	0
175	0	0
180	0	0



NR850-N with NEREA405

	0–180	90–270
0	242.54	242.54
5	241.62	239.27
10	238.38	235.00
15	232.72	225.37
20	224.16	207.55
25	208.67	189.18
30	194.92	175.41
35	183.12	162.83
40	170.06	145.44
45	156.76	127.18
50	139.65	110.66
55	111.10	97.87
60	78.84	89.89
65	51.56	84.31
70	29.83	77.97
75	14.33	68.89
80	6.01	54.90
85	2.31	38.05
90	0.69	23.84
95	0.66	13.61
100	0.66	6.70
105	0.77	2.85
110	0.88	1.32
115	0.88	0.88
120	0.88	0.88
125	0.99	1.10
130	1.10	1.10
135	1.10	1.10
140	1.10	1.10
145	1.21	1.10
150	1.32	1.32
155	1.32	1.32
160	1.32	1.32
165	1.32	1.43
170	0	0
175	0	0
180	0	0



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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

Applications

- Suitable for use in areas where there is the presence of flammable gases.
- Areas of low clearance, with low ceilings or areas in which the weight of the luminaire should be minimal.
- Environments with harsh climatic conditions, mixture of gases, dust, corrosive atmospheres or high temperature.
- Typical applications include:
  - — Chemical plants
  - — Petrochemical plants
  - — Pharmaceuticals facilities
  - — Food processing facilities
  - — Paint and varnish facilities
  - — Flammable material storage facilities

Features

- Compact, light weight, low profile design is suited for low mounting heights.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs.
- Locking system ensures the IP66 rating by sealing the screws, mounting hoods and housing.
- Easy access to components, reducing installation time and errors.
- Manufactured in six models:
  - — Ceiling, 30° wall and 90° wall mounts have four threaded entries.
  - — Pendant, 30° stanchion and 90° stanchion have one threaded entry.
- Standard voltage: 220 V, 60 Hz; optional voltage 230/240 V, 50 Hz.
- Impact and thermal shock-resistant globe threads directly into ballast housing.
- Ballast with high power factor > 0.92.
- Supplied with ballast mounted.
- Supplied with guard.
- NPT threads standard. BSP and metric threads available.
- Optional NEREA reflector is lightweight, durable and corrosion-resistant.
- Lamp not supplied.
- All entries must be sealed with threaded cable glands or sealing unit to prevent the passage of gases.
- Ex nA nR technology prevents the entry of gases and vapors in the chamber of the globe.
- Protection Ex nA: devices or circuits that in normal operating conditions, produce no arc, spark or high temperature.
- Protection Ex nR (restriction of entry of gas or vapor): equipment designed and built in such a way that causes no spark or external hot surface, avoiding the risk of explosion when installed in explosive Zone 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.

Standard Material

- Body and guard: copperfree cast aluminum alloy
- Globe: impact and thermal shock-resistant threaded glass
- Socket: strengthened porcelain
- Gasket: silicone
- Screws and washers: external fixation of AISI 304 stainless steel
- NEREA reflector: anodized aluminum



Pendant Mount



Optional NEREA Reflector

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NN850A**B**2H08N.
- For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NN850A**M**2H08N.
- For optional reflector, add the letter **E** to the end of the catalog number; example: NN850AN2H08N**E**.
- For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NN850AN2H08NE**A**.
- For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NN850AN2H08NEA**1**.
- For 230/240 V, 50 Hz ballast, add suffix **-235**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- INMETRO Certificate: TUV 12.0288-X
- Ex Standards: ABNT NBR IEC 60079-0; 60079-15; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- Unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA (not supplied).

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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

Order using catalog numbering guide below or select catalog number from tables below and on following pages.

Catalog Numbering Guide

NN850	A	N	2	S	07	N	E	A	1	235
Series: NN850 - NN850 Series Zone 2, 21, 22 NBR IEC Certified	Mounting: A - Pendant B - Ceiling C - 30° Wall E - 90° Wall F - 30° Stanchion H - 90° Stanchion	Thread: N - NPT B - BSP M - Metric	Luminaire Size: 2 - Size 2	Lamp Type: H - Mercury Vapor M - Metal Halide S - High Pressure Sodium	Wattage: 07 - 70 W 08 - 80 W 12 - 125 W 15 - 150 W	N - New Generation	Option Reflector: E - For size 2	Optional Reflector Material: A- Aluminum F - Porcelain Steel	Option: Reflector Sizes: 1 - Shallow 2 - Standard 3 - Deep 4 - Angle	Voltage Option: Blank - 220 V, 60 Hz 235 - 230/240 V, 50 Hz ①

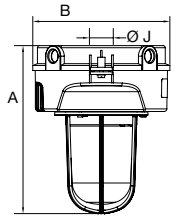
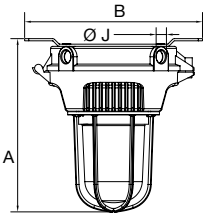
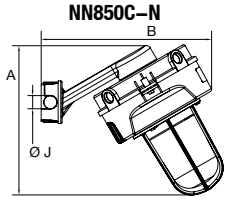
*① For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 70 W, 230/240 V, 50 Hz, high pressure sodium fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NN850AN2S07N235** and standard reflector catalog number **NEREA204**.*

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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

	Lamp Type and Wattage					Threaded	Dimensions mm (in)				
	Mercury Vapor	HPS	Metal Halide	Socket	T Rating	Entries ø J ①	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①②③
Pendant											
NN850A–N 	80	—	—	E-27	T4	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NN850AN2H08N**
	125	—	—	E-27	T3	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NN850AN2H12N**
	—	70	—	E-27	T4	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NN850AN2S07N**
	—	—	70	E-27	T3	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NN850AN2M07N**
	—	—	150	E-27	T3	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NN850AN2M15N**
Ceiling											
NN850B–N 	80	—	—	E-27	T4	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NN850BN2H08N**
	125	—	—	E-27	T3	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NN850BN2H12N**
	—	70	—	E-27	T4	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NN850BN2S07N**
	—	—	70	E-27	T3	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NN850BN2M07N**
	—	—	150	E-27	T3	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NN850BN2M15N**
30° Wall											
NN850C–N 	80	—	—	E-27	T4	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NN850CN2H08N**
	125	—	—	E-27	T3	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NN850CN2H12N**
	—	70	—	E-27	T4	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NN850CN2S07N**
	—	—	70	E-27	T3	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NN850CN2M07N**
	—	—	150	E-27	T3	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NN850CN2M15N**

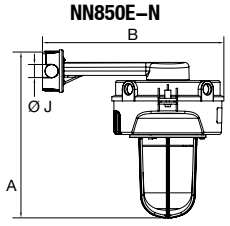
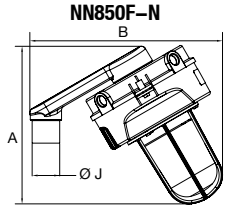
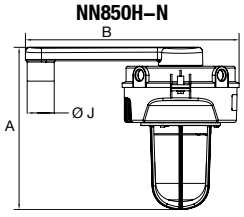
① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NN850A**B**2H08N.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NN850A**M**2H08N.*
*② For optional reflector, add the letter **E** to the end of the catalog number; example: NN850AN2H08N**E**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NN850AN2H08NE**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NN850AN2H08NEA**1**.*
*③ For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 70 W, 230/240 V, 50 Hz, high pressure sodium fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NN850AN2S07N235** and standard reflector catalog number **NEREA204**.*

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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

	Lamp Type and Wattage					Threaded	Dimensions mm (in)				
	Mercury Vapor	HPS	Metal Halide	Socket	T Rating	Entries ø J ①	A	B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①②③
90° Wall											
	80	—	—	E-27	T4	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NN850EN2H08N**
	125	—	—	E-27	T3	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NN850EN2H12N**
	—	70	—	E-27	T4	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NN850EN2S07N**
	—	—	70	E-27	T3	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NN850EN2M07N**
	—	—	150	E-27	T3	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NN850EN2M15N**
30° Stanchion											
	80	—	—	E-27	T4	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NN850FN2H08N**
	125	—	—	E-27	T3	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NN850FN2H12N**
	—	70	—	E-27	T4	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NN850FN2S07N**
	—	—	70	E-27	T3	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NN850FN2M07N**
	—	—	150	E-27	T3	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NN850FN2M15N**
90° Stanchion											
	80	—	—	E-27	T4	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NN850HN2H08N**
	125	—	—	E-27	T3	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NN850HN2H12N**
	—	70	—	E-27	T4	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NN850HN2S07N**
	—	—	70	E-27	T3	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NN850HN2M07N**
	—	—	150	E-27	T3	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NN850HN2M15N**

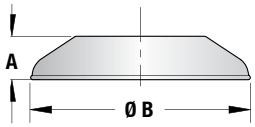
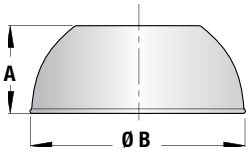
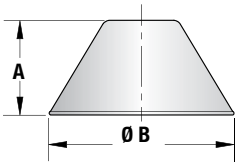
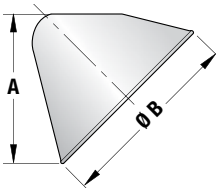
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*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NN850A**B**2H08N.*
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*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NN850AN2H08NE**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NN850AN2H08NEA**1**.*
*③ For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 70 W, 230/240 V, 50 Hz, high pressure sodium fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NN850AN2S07N235** and standard reflector catalog number **NEREA204**.*

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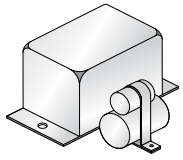
Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

Reflectors

		Luminaire Type			Dimensions mm (in) A	Dimensions mm (in) Ø B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Shallow Dome		NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	78 (3.07)	410 (16.14)	0.72 (1.59)	13.00 (793.31)	**NEREA104**
Standard Dome		NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	135 (5.31)	410 (16.14)	0.68 (1.50)	21.80 (1330.32)	**NEREA204**
Deep Dome		NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	210 (8.27)	410 (16.14)	0.89 (1.96)	35.30 (2154.14)	**NEREA304**
Angle		NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	260 (10.24)	410 (16.14)	0.95 (2.09)	51.00 (3112.21)	**NEREA404**

High Power Factor Ballast (60 Hz) — For Use With Any Mounting Hood

	Description	Catalog Number
	Mercury Vapor 80 W	**NFCHN850H08**
	Mercury Vapor 125 W	**NFCHN850H12**
	Metal Halide 70 W	**NFCHN850M07**
	Metal Halide 150 W	**NFCHN850M15**
	High Pressure Sodium 70 W	**NFCHN850S07**

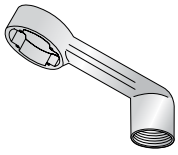
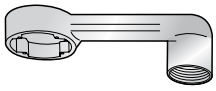
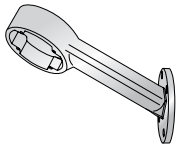
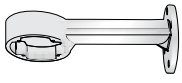
① *For reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position. Example: NERE**F**104.*

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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

Accessories

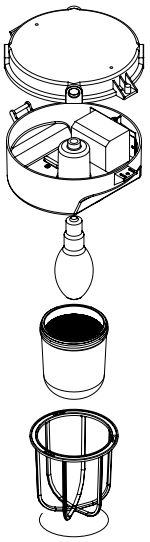
	Description	Luminaire Type			Catalog Number
	Protective Guard	NN850A-N NN850E-N NN850A-N NN850E-N	NN850B-N NN850F-N NN850B-N NN850F-N	NN850C-N NN850H-N NN850C-N NN850H-N	**NFGRD852TN**
	Glass Globe	NN850A-N NN850E-N NN850A-N NN850E-N	NN850B-N NN850F-N NN850B-N NN850F-N	NN850C-N NN850H-N NN850C-N NN850H-N	**NXGLBN850N2**
	Mounting Hood with 4 Entries	NN850C-N		3/4" NPT	**NFCXA85TN**
				3/4" BSP	**NFCXA85TB**
		NN850E-N		M25	**NFCXA85TM**
	30° Stanchion Mounting Bracket	NN850F-N		1-1/2" NPT	**NFPES85FTN**
				1-1/2" BSP	**NFPES85FTB**
				M50	**NFPES85FTM**
	90° Stanchion Mounting Bracket	NN850H-N		1-1/2" NPT	**NFPES85HTN**
				1-1/2" BSP	**NFPES85HTB**
				M50	**NFPES85HTM**
	30° Wall Mounting Bracket	NN850C-N			**NFPES85CTN**
	90° Wall Mounting Bracket	NN850E-N			**NFPES85ETN**

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NN850–N Series Luminaires

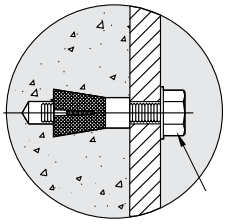
Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. High Pressure Sodium, Mercury Vapor, Metal Halide

Installation and Maintenance



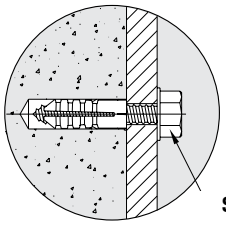
For Affixing to Concrete

Steel anchor bolt (not included)



For Affixing to Masonry

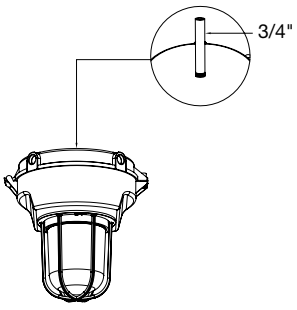
Nylon bushing (not included)



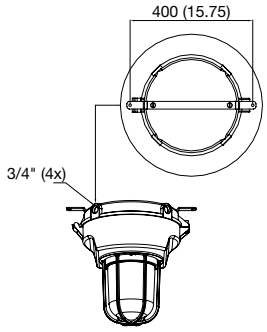
Note: Equipment for installation in explosive atmospheres (Zone 2) is supplied assembled with their ballast to retain equipment certification.

Mounting Details ① — Dimensions in Millimeters (Inches)

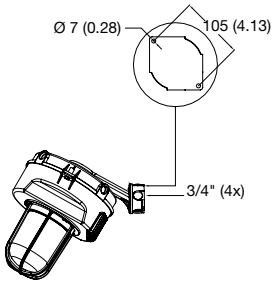
NN850A–N — Pendant



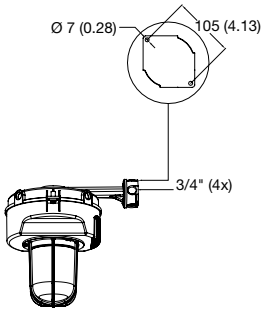
NN850B–N — Ceiling



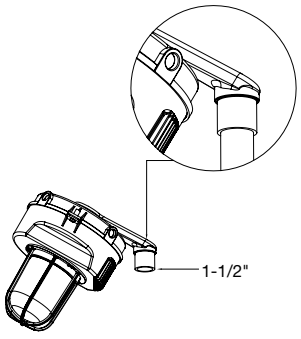
NN850C–N — 30° Wall



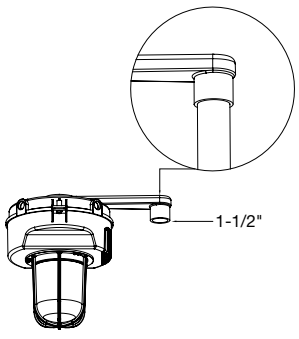
NN850E–N — 90° Wall



NN850F–N — 30° Stanchion



NN850H–N — 90° Stanchion



① *Any unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA. Not supplied.*

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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. 70 W High Pressure Sodium

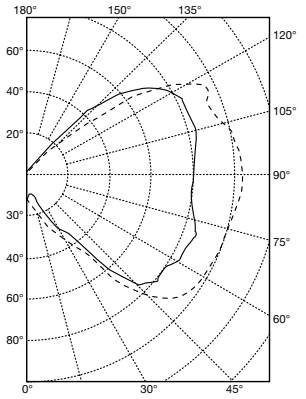
Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

Photometric Data

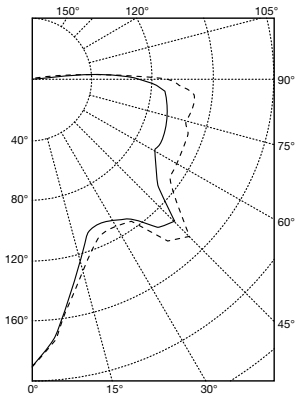
NN850-N

	0–180	90–270
0	15.93	18.74
5	13.68	11.62
10	18.26	9.79
15	25.99	10.18
20	25.57	11.77
25	30.84	22.76
30	40.12	30.84
35	44.55	35.45
40	68.86	60.51
45	86.50	76.44
50	93.77	82.16
55	97.55	81.35
60	99.19	84.97
65	98.98	85.45
70	100.87	87.40
75	101.05	83.80
80	102.04	80.66
85	104.04	80.78
90	103.83	80.72
95	102.90	81.14
100	100.75	82.93
105	96.32	84.07
110	92.43	82.49
115	96.44	82.90
120	86.74	78.86
125	65.39	71.50
130	33.00	58.92
135	9.13	40.96
140	1.56	12.75
145	0.81	1.62
150	0.45	0.93
155	0.36	0.57
160	0.30	0.33
165	0.30	0.30
170	0	0
175	0	0
180	0	0



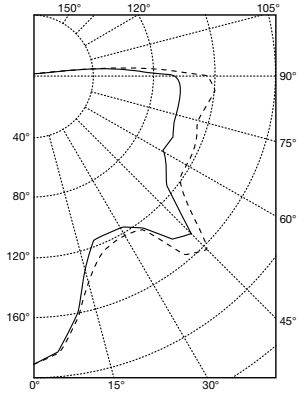
NN850-N with NEREA104

	0–180	90–270
0	191.77	191.77
5	174.67	173.55
10	148.37	145.65
15	132.17	122.41
20	117.22	108.06
25	112.09	105.95
30	112.89	108.39
35	115.22	113.08
40	140.39	128.60
45	147.54	133.23
50	122.40	107.10
55	110.83	99.73
60	110.68	92.67
65	109.57	94.71
70	108.38	92.67
75	105.15	91.16
80	106.75	89.78
85	107.21	87.02
90	89.90	72.13
95	37.37	31.14
100	3.56	3.50
105	2.22	2.22
110	1.26	1.23
115	0.81	0.75
120	0.60	0.57
125	0.60	0.57
130	0.60	0.57
135	0.60	0.57
140	0.60	0.57
145	0.57	0.60
150	0.60	0.63
155	0.57	0.63
160	0.60	0.63
165	0.63	0.63
170	0	0
175	0	0
180	0	0



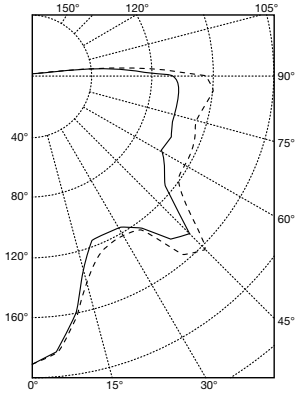
NN850-N with NEREA204

	0–180	90–270
0	191.77	191.77
5	187.23	186.03
10	165.31	162.27
15	142.44	131.92
20	126.64	116.75
25	122.95	116.21
30	121.71	116.68
35	125.59	123.26
40	155.19	142.16
45	162.98	147.17
50	129.64	113.43
55	118.44	106.58
60	116.40	97.45
65	115.81	100.10
70	113.18	96.77
75	111.17	96.38
80	114.62	96.40
85	118.51	96.19
90	114.40	91.79
95	61.55	51.29
100	7.38	7.25
105	2.69	2.69
110	1.52	1.48
115	0.96	0.89
120	0.60	0.57
125	0.60	0.57
130	0.60	0.57
135	0.64	0.61
140	0.60	0.57
145	0.63	0.66
150	0.63	0.66
155	0.60	0.66
160	0.63	0.66
165	0.64	0.64
170	0	0
175	0	0
180	0	0



NN850-N with NEREA304

	0–180	90–270
0	127.13	127.13
5	110.43	113.50
10	107.59	104.86
15	110.56	101.81
20	108.48	99.54
25	117.49	108.24
30	129.44	116.01
35	131.48	116.01
40	150.19	133.26
45	157.31	137.61
50	147.64	132.68
55	142.19	125.53
60	138.78	121.99
65	130.27	116.43
70	117.05	103.32
75	84.70	79.48
80	39.55	39.39
85	6.55	9.85
90	2.82	3.08
95	1.68	1.95
100	0.96	1.08
105	0.63	0.63
110	0.54	0.54
115	0.60	0.57
120	0.60	0.60
125	0.66	0.60
130	0.66	0.60
135	0.66	0.63
140	0.66	0.63
145	0.66	0.60
150	0.66	0.60
155	0.60	0.60
160	0.60	0.60
165	0.60	0.60
170	0	0
175	0	0
180	0	0



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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. 125 W Mercury Vapor

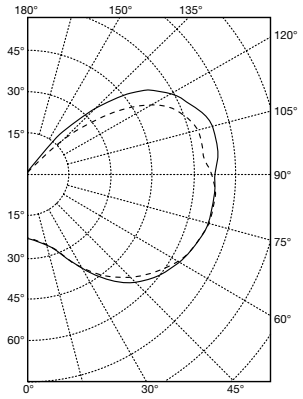
Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

Photometric Data

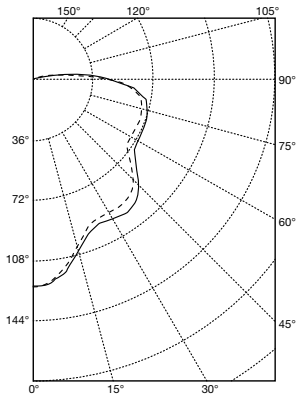
NN850-N

	0–180	90–270
0	23.43	23.43
5	23.56	23.86
10	24.84	25.04
15	26.77	26.37
20	29.09	28.75
25	33.18	33.32
30	38.78	39.63
35	43.88	45.47
40	48.46	50.38
45	52.78	55.11
50	56.52	58.17
55	59.43	61.17
60	63.55	63.46
65	64.66	65.35
70	66.14	66.64
75	67.18	67.57
80	67.31	67.63
85	67.05	67.66
90	66.43	67.51
95	63.92	68.75
100	63.96	69.04
105	63.27	68.72
110	60.88	66.15
115	56.77	62.73
120	50.12	58.56
125	39.33	52.70
130	26.76	44.19
135	15.43	32.53
140	5.80	20.23
145	0.91	8.09
150	0.44	1.63
155	0.38	0.56
160	0.35	0.31
165	0.31	0.31
170	0	0
175	0	0
180	0	0



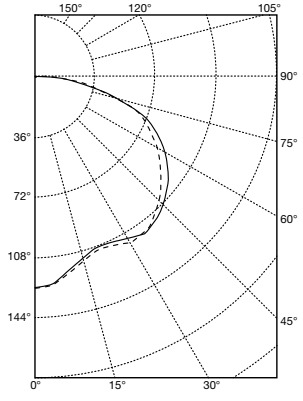
NN850-N with NEREA104

	0–180	90–270
0	125.02	125.02
5	123.30	122.07
10	116.87	115.07
15	107.27	104.17
20	98.93	95.59
25	95.56	92.15
30	96.76	92.42
35	98.32	92.36
40	96.44	90.59
45	90.14	85.06
50	79.83	75.34
55	74.41	68.60
60	73.18	68.04
65	72.79	68.32
70	72.53	68.41
75	70.62	67.23
80	68.64	65.80
85	60.79	59.74
90	46.39	47.04
95	28.32	31.24
100	14.74	16.81
105	5.43	6.68
110	1.25	1.44
115	0.72	0.78
120	0.50	0.50
125	0.53	0.50
130	0.56	0.53
135	0.53	0.53
140	0.53	0.53
145	0.53	0.53
150	0.56	0.60
155	0.60	0.60
160	0.60	0.60
165	0.60	0.60
170	0	0
175	0	0
180	0	0



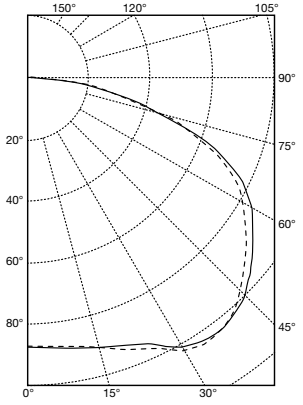
NN850-N with NEREA204

	0–180	90–270
0	126.76	126.76
5	125.23	125.06
10	119.39	118.09
15	113.26	111.97
20	110.06	109.14
25	110.84	109.49
30	114.53	111.84
35	113.74	114.83
40	111.50	111.81
45	105.04	109.02
50	99.07	104.12
55	90.68	96.89
60	84.19	88.69
65	75.32	80.44
70	66.67	68.59
75	52.49	51.01
80	34.64	32.95
85	19.21	17.68
90	7.50	6.72
95	1.63	1.69
100	0.82	0.85
105	0.44	0.44
110	0.41	0.44
115	0.44	0.44
120	0.47	0.50
125	0.50	0.50
130	0.50	0.53
135	0.53	0.56
140	0.53	0.56
145	0.53	0.56
150	0.53	0.60
155	0.56	0.60
160	0.56	0.60
165	0.56	0.60
170	0	0
175	0	0
180	0	0



NN850-N with NEREA304

	0–180	90–270
0	87.02	87.02
5	86.95	87.82
10	88.37	89.00
15	89.63	90.33
20	93.61	92.25
25	96.17	95.04
30	101.89	100.80
35	104.19	103.44
40	102.96	102.85
45	98.79	100.00
50	92.80	95.54
55	87.24	90.08
60	81.32	84.57
65	75.44	77.13
70	63.34	65.20
75	48.07	48.31
80	31.86	31.73
85	18.54	18.00
90	8.31	7.81
95	2.10	2.23
100	0.85	0.94
105	0.53	0.56
110	0.41	0.44
115	0.44	0.44
120	0.44	0.47
125	0.50	0.50
130	0.50	0.50
135	0.50	0.50
140	0.50	0.53
145	0.50	0.53
150	0.50	0.56
155	0.50	0.56
160	0.50	0.56
165	0.50	0.53
170	0	0
175	0	0
180	0	0



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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. 70 W Metal Halide

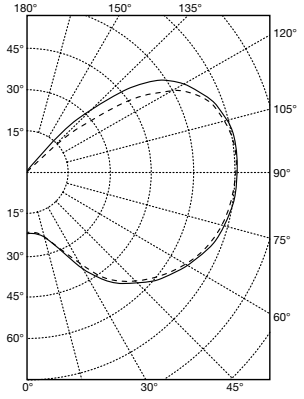
Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

Photometric Data

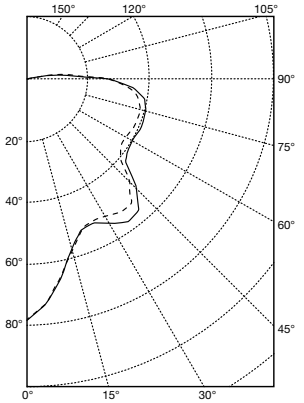
NN850-N

	0–180	90–270
0	21.99	21.99
5	21.45	21.85
10	22.63	22.45
15	24.17	23.77
20	26.61	26.54
25	31.23	32.13
30	38.03	40.31
35	44.77	47.11
40	50.57	52.52
45	55.44	57.04
50	59.41	60.88
55	62.96	64.01
60	66.08	66.93
65	68.76	69.63
70	71.05	71.80
75	72.49	73.41
80	74.03	74.47
85	74.96	75.19
90	75.60	75.75
95	75.13	75.69
100	74.99	75.51
105	73.82	74.52
110	71.63	72.48
115	67.89	69.23
120	61.01	64.68
125	48.10	58.40
130	31.55	48.94
135	15.67	34.65
140	5.01	19.27
145	0.78	6.74
150	0.46	1.09
155	0.39	0.56
160	0.35	0.35
165	0.32	0.35
170	0	0
175	0	0
180	0	0



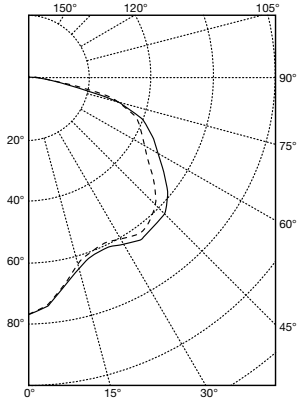
NN850-N with NEREA104

	0–180	90–270
0	156.36	156.36
5	146.18	147.03
10	129.48	130.38
15	113.15	113.49
20	104.46	104.67
25	102.33	104.11
30	104.04	109.26
35	107.11	114.44
40	104.98	113.16
45	94.29	100.04
50	79.23	83.76
55	74.81	79.87
60	75.09	79.63
65	76.43	80.89
70	77.02	81.03
75	76.23	80.15
80	74.02	77.53
85	67.79	70.41
90	52.36	53.16
95	22.78	22.55
100	8.04	7.93
105	2.16	2.08
110	1.10	1.13
115	0.74	0.74
120	0.47	0.47
125	0.47	0.47
130	0.52	0.59
135	0.52	0.59
140	0.59	0.59
145	0.59	0.59
150	0.54	0.54
155	0.54	0.54
160	0.58	0.61
165	0.67	0.67
170	0	0
175	0	0
180	0	0



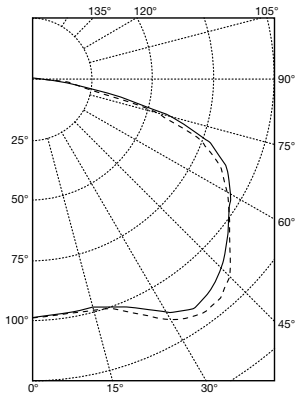
NN850-N with NEREA204

	0–180	90–270
0	154.82	154.82
5	148.44	149.92
10	137.34	138.70
15	125.53	128.04
20	119.93	123.00
25	118.04	122.01
30	120.29	125.04
35	124.82	129.06
40	122.46	126.21
45	117.33	125.50
50	107.70	118.73
55	96.53	107.79
60	87.43	97.03
65	81.09	88.70
70	73.81	79.07
75	58.04	59.28
80	30.72	29.60
85	12.31	11.68
90	3.75	3.42
95	1.41	1.59
100	0.85	0.88
105	0.49	0.49
110	0.42	0.49
115	0.49	0.49
120	0.49	0.53
125	0.56	0.56
130	0.56	0.60
135	0.56	0.64
140	0.60	0.64
145	0.64	0.64
150	0.64	0.64
155	0.64	0.64
160	0.64	0.64
165	0.64	0.67
170	0	0
175	0	0
180	0	0



NN850-N with NEREA304

	0–180	90–270
0	98.87	98.87
5	97.88	98.30
10	97.92	97.73
15	98.83	97.59
20	101.19	100.00
25	106.94	104.33
30	114.80	111.63
35	119.58	115.82
40	119.37	114.58
45	114.62	110.36
50	106.02	104.40
55	98.52	98.52
60	92.49	93.80
65	85.16	88.23
70	72.41	77.20
75	51.51	58.19
80	25.51	30.67
85	10.85	12.87
90	3.49	4.33
95	1.38	1.69
100	0.88	1.02
105	0.56	0.64
110	0.46	0.49
115	0.49	0.49
120	0.49	0.53
125	0.56	0.56
130	0.56	0.56
135	0.60	0.56
140	0.60	0.56
145	0.60	0.56
150	0.60	0.60
155	0.60	0.60
160	0.60	0.60
165	0.56	0.60
170	0	0
175	0	0
180	0	0



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Nutsteel® NN800–N Series Luminaires

Zone 2 – 21 and 22. Restricted Breathing. Incandescent, Compact Fluorescent, Mixed

NBR IEC:
Zone 2 – 21 and 22
Ex nR IIC Gc
Ex tb IIIC Db
IP66

Applications

- Suitable for use in areas where there is the presence of flammable gases.
- Areas of low clearance, with low ceilings or areas in which the weight of the luminaire should be minimal.
- Environments with harsh climatic conditions, mixture of gases, dust, corrosive atmospheres or high temperature.
- Typical applications include:
  - — Chemical plants
  - — Petrochemical plants
  - — Pharmaceuticals facilities
  - — Food processing facilities
  - — Paint and varnish facilities
  - — Flammable material storage facilities

Features

- Modular design allows scores of fixture component combinations to meet installation and lighting needs.
- Manufactured in six models:
  - — Ceiling, 30° wall and 90° wall mounts have four threaded entries.
  - — Pendant, 30° stanchion and 90° stanchion have one threaded entry.
- Standard voltage: 220 V, 60 Hz; optional voltage 127/220 V, 50/60 Hz.
- Impact and thermal shock-resistant globe threads directly into the body.
- Supplied with guard.
- NPT threads standard. BSP and metric threads available.
- Optional NEREA reflector is lightweight, durable and corrosion-resistant.
- Lamp not supplied.
- Protection Ex nR (restriction of entry of gas or vapor): equipment designed and built in such a way that causes no spark or external hot surface, avoiding the risk of explosion when installed in explosive Zone 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.

Standard Material

- Body and guard: copperfree cast aluminum alloy
- Globe: impact and thermal shock-resistant threaded glass
- Socket: strengthened porcelain
- Gasket: silicone
- Screws and washers: external fixation of AISI 304 stainless steel
- NEREA reflector: anodized aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure



Pendant Mount



Optional NEREA Reflector

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NN800A**B**2E27N.
- For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NN800A**M**2F23N.
- For optional reflector, add the letter **E** to the end of the catalog number; example: NN800AN2F23N**E**.
- For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NN800AN2F23NE**A**.
- For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NN800AN2F23NEA**1**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- INMETRO Certificate: TUV 12.0288-X
- Ex Standards: ABNT NBR IEC 60079-0; 60079-15; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- Any unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA.

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Nutsteel® NN800–N Series Luminaires

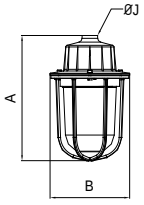
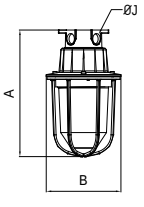
Zone 2 – 21 and 22. Restricted Breathing. Incandescent, Compact Fluorescent, Mixed

NBR IEC:
Zone 2 – 21 and 22
Ex nR IIC Gc
Ex tb IIIC Db
IP66

Order using catalog numbering guide below or select catalog number from tables below and on following pages.

Catalog Numbering Guide

NN800	A	N	2	I	06	N	E	A	1	—
Series: NN800 - NN800 Series Zone 2, 21, 22 NBR IEC Certified	Mounting: A - Pendant B - Ceiling C - 30° Wall E - 90° Wall F - 30° Stanchion H - 90° Stanchion	Thread: N - NPT B - BSP M - Metric	Luminaire Size: 2 - Size 2	Lamp Type: I - Incandescent T - Mixed F - Compact Fluorescent	Wattage: 06 - 60 W 10 - 100 W 16 - 160 W 20 - 200 W 23 - 23 W	N - New Generation	Option Reflector: E - For size 2	Optional Reflector Material: A- Aluminum F - Porcelain Steel	Option: Reflector Sizes: 1 - Shallow 2 - Standard 3 - Deep 4 - Angle	Voltage Option: Blank - 220 V, 60 Hz 235 - 230/240 V, 50 Hz ①

	Lamp Type and Wattage					Threaded Entries	Dimensions mm (in)		Weight	Volume	Catalog Number
	Incandescent	Compact Fluorescent	Mixed	Socket	T Rating	ø J ②	A	B	kg (lb)	dm³ (in³)	③④⑤
Pendant											
NN800A–N	60	—	—	E-27	T6	3/4"	283 (11.14)	180 (7.09)	2.54 (5.60)	9.89 (603.52)	**NN800AN2I06N**
	100	—	—	E-27	T5	3/4"	283 (11.14)	180 (7.09)	2.54 (5.60)	9.89 (603.52)	**NN800AN2I10N**
	200	—	—	E-27	T4	3/4"	283 (11.14)	180 (7.09)	2.54 (5.60)	9.89 (603.52)	**NN800AN2I20N**
	—	23	—	E-27	T6	3/4"	283 (11.14)	180 (7.09)	2.54 (5.60)	9.89 (603.52)	**NN800AB2F23N**
	—	—	160	E-27	T3	3/4"	283 (11.14)	180 (7.09)	2.54 (5.60)	9.89 (603.52)	**NN800AN2T16N**
Ceiling											
NN800B–N	60	—	—	E-27	T6	3/4"	304 (11.97)	180 (7.09)	2.63 (5.80)	10.24 (624.88)	**NN800BN2I06N**
	100	—	—	E-27	T5	3/4"	304 (11.97)	180 (7.09)	2.63 (5.80)	10.24 (624.88)	**NN800BN2I10N**
	200	—	—	E-27	T4	3/4"	304 (11.97)	180 (7.09)	2.63 (5.80)	10.24 (624.88)	**NN800BN2I20N**
	—	23	—	E-27	T6	3/4"	304 (11.97)	180 (7.09)	2.63 (5.80)	10.24 (624.88)	**NN800BB2F23N**
	—	—	160	E-27	T3	3/4"	304 (11.97)	180 (7.09)	2.63 (5.80)	10.24 (624.88)	**NN800BN2T16N**

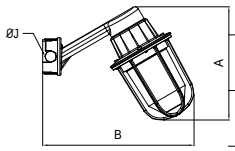
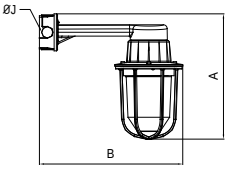
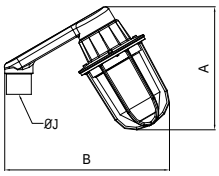
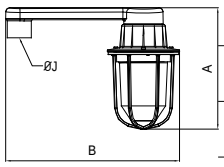
*① For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 23 W, 230/240 V, 50 Hz, compact fluorescent fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NN800AB2F23N235** and standard reflector catalog number **NEREA104**.*
② The 3/4" threaded entries can be replaced by M25; and the 1-1/2" can be replaced by M50. Contact your local sales representative for details.
*③ For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NN800A**B**2F23N.*
*④ For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NN800A**M**2F23N.*
*⑤ For optional reflector, add the letter **E** to the end of the catalog number; example: NN800AN2F23N**E**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NN800AN2F23NE**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NN800AN2F23NEA**1**.*

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Nutsteel® NN800–N Series Luminaires

Zone 2 – 21 and 22. Restricted Breathing. Incandescent, Compact Fluorescent, Mixed

NBR IEC:
Zone 2 – 21 and 22
Ex nR IIC Gc
Ex tb IIIC Db
IP66

	Lamp Type and Wattage					Threaded Entries	Dimensions mm (in)				
	Incandescent	Compact Fluorescent	Mixed	Socket	T Rating	ø J ②	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ③④⑤
30° Wall											
NN800C–N	60	—	—	E-27	T6	3/4"	297 (10.98)	397 (15.63)	3.25 (7.17)	12.55 (765.85)	**NN800CN2I06N**
	100	—	—	E-27	T5	3/4"	297 (10.98)	397 (15.63)	3.25 (7.17)	12.55 (765.85)	**NN800CN2I10N**
	200	—	—	E-27	T4	3/4"	297 (10.98)	397 (15.63)	3.25 (7.17)	12.55 (765.85)	**NN800CN2I20N**
	—	23	—	E-27	T6	3/4"	297 (10.98)	397 (15.63)	3.25 (7.17)	12.55 (765.85)	**NN800CN2F23N**
	—	—	160	E-27	T3	3/4"	297 (10.98)	397 (15.63)	3.25 (7.17)	12.55 (765.85)	**NN800CN2T16N**
90° Wall											
NN800E–N	60	—	—	E-27	T6	3/4"	332 (13.07)	380 (14.96)	3.35 (7.39)	12.93 (789.04)	**NN800EN2I06N**
	100	—	—	E-27	T5	3/4"	332 (13.07)	380 (14.96)	3.35 (7.39)	12.93 (789.04)	**NN800EN2I10N**
	200	—	—	E-27	T4	3/4"	332 (13.07)	380 (14.96)	3.35 (7.39)	12.93 (789.04)	**NN800EN2I20N**
	—	23	—	E-27	T6	3/4"	332 (13.07)	380 (14.96)	3.35 (7.39)	12.93 (789.04)	**NN800EN2F23N**
	—	—	160	E-27	T3	3/4"	332 (13.07)	380 (14.96)	3.35 (7.39)	12.93 (789.04)	**NN800EN2T16N**
30° Stanchion											
NN800F–N	60	—	—	E-27	T6	1-1/2"	297 (10.98)	397 (15.63)	3.19 (7.03)	12.39 (756.08)	**NN800FN2I06N**
	100	—	—	E-27	T5	1-1/2"	297 (10.98)	397 (15.63)	3.19 (7.03)	12.39 (756.08)	**NN800FN2I10N**
	200	—	—	E-27	T4	1-1/2"	297 (10.98)	397 (15.63)	3.19 (7.03)	12.39 (756.08)	**NN800FN2I20N**
	—	23	—	E-27	T6	1-1/2"	297 (10.98)	397 (15.63)	3.19 (7.03)	12.39 (756.08)	**NN800FN2F23N**
	—	—	160	E-27	T3	1-1/2"	297 (10.98)	397 (15.63)	3.19 (7.03)	12.39 (756.08)	**NN800FN2T16N**
90° Stanchion											
NN800H–N	60	—	—	E-27	T6	1-1/2"	303 (11.93)	434 (17.09)	3.32 (7.32)	12.88 (785.99)	**NN800HN2I06N**
	100	—	—	E-27	T5	1-1/2"	303 (11.93)	434 (17.09)	3.32 (7.32)	12.88 (785.99)	**NN800HN2I10N**
	200	—	—	E-27	T4	1-1/2"	303 (11.93)	434 (17.09)	3.32 (7.32)	12.88 (785.99)	**NN800HN2I20N**
	—	23	—	E-27	T6	1-1/2"	303 (11.93)	434 (17.09)	3.32 (7.32)	12.88 (785.99)	**NN800HN2F23N**
	—	—	160	E-27	T3	1-1/2"	303 (11.93)	434 (17.09)	3.32 (7.32)	12.88 (785.99)	**NN800HN2T16N**

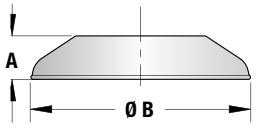
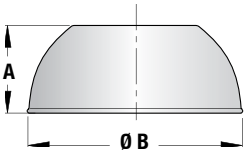
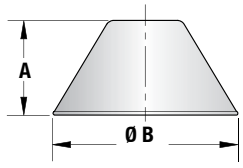
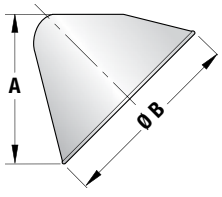
*① For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 23 W, 230/240 V, 50 Hz, compact fluorescent fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NN800AB2F23N235** and standard reflector catalog number **NEREA104**.*
② The 3/4" threaded entries can be replaced by M25; and the 1-1/2" can be replaced by M50. Contact your local sales representative for details.
*③ For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NN800A**B**2F23N.*
*④ For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NN800A**M**2F23N.*
*⑤ For optional reflector, add the letter **E** to the end of the catalog number; example: NN800AN2F23N**E**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NN800AN2F23NE**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NN800AN2F23NEA**1**.*

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Nutsteel® NN800–N Series Luminaires

Zone 2 – 21 and 22. Restricted Breathing. Incandescent, Compact Fluorescent, Mixed

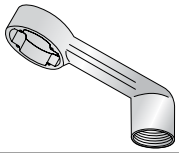
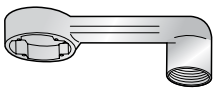
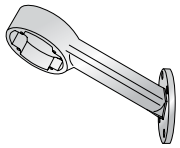
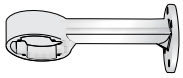
Reflectors

	Luminaire Type			Dimensions mm (in) A	Dimensions mm (in) Ø B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Shallow Dome								
	NN800A-N NN800E-N	NN800B-N NN800F-N	NN800C-N NN800H-N	78 (3.07)	410 (16.14)	0.72 (1.59)	13.00 (793.31)	**NEREA104**
Standard Dome								
	NN800A-N NN800E-N	NN800B-N NN800F-N	NN800C-N NN800H-N	135 (5.31)	410 (16.14)	0.68 (1.50)	21.80 (1330.32)	**NEREA204**
Deep Dome								
	NN800A-N NN800E-N	NN800B-N NN800F-N	NN800C-N NN800H-N	210 (8.27)	410 (16.14)	0.89 (1.96)	35.30 (2154.14)	**NEREA304**
Angle								
	NN800A-N NN800E-N	NN800B-N NN800F-N	NN800C-N NN800H-N	260 (10.24)	410 (16.14)	0.95 (2.09)	51.00 (3112.21)	**NEREA404**

① *For reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position. Example: NERE**F**104.*

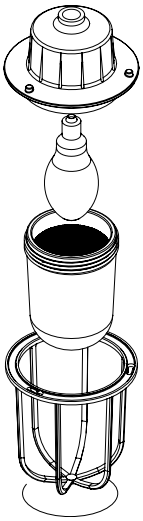
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Accessories

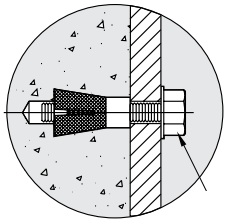
	Description	Luminaire Type			Catalog Number
	Protective Guard	NN800A-N NN800E-N	NN800B-N NN800F-N	NN800C-N NN800H-N	**NFGRD852TN**
	Glass Globe	NN800A-N NN800E-N	NN800B-N NN800F-N	NN800C-N NN800H-N	**NXGLBN850N2**
	Mounting Hood with 4 Entries	NN800C-N		3/4" NPT	**NFCXA85TN**
				3/4" BSP	**NFCXA85TB**
		NN800E-N		M25	**NFCXA85TM**
	30° Stanchion Mounting Bracket	NN800F-N		1-1/2" NPT	**NFPES85FTN**
				1-1/2" BSP	**NFPES85FTB**
				M50	**NFPES85FTM**
	90° Stanchion Mounting Bracket	NN800H-N		1-1/2" NPT	**NFPES85HTN**
				1-1/2" BSP	**NFPES85HTB**
				M50	**NFPES85HTM**
	30° Wall Mounting Bracket	NN800C-N			**NFPES85CTN**
	90° Wall Mounting Bracket	NN800E-N			**NFPES85ETN**

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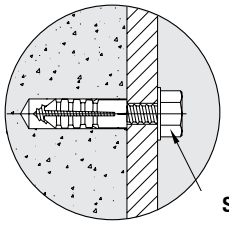
Installation and Maintenance



For Affixing to Concrete

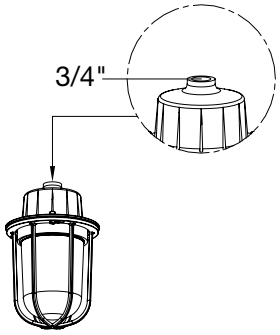


For Affixing to Masonry

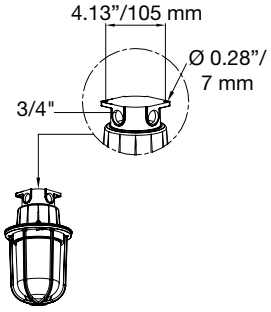


Mounting Details ① — Dimensions in Millimeters (Inches)

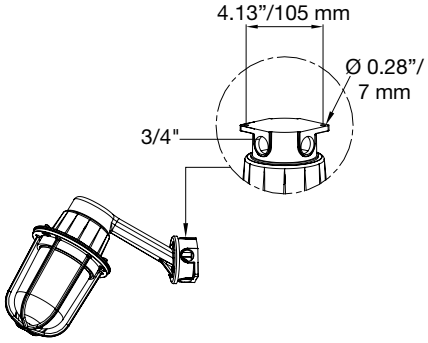
NN800A–N — Pendant



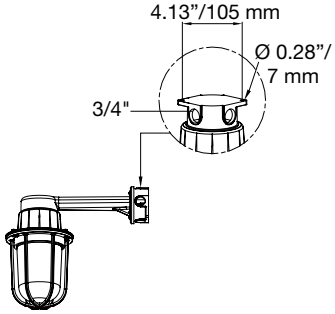
NN800B–N — Ceiling



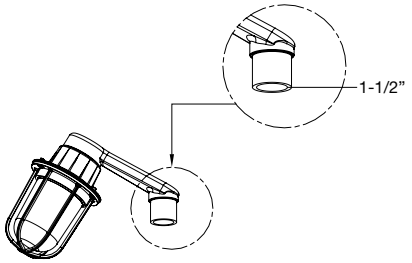
NN800C–N — 30° Wall



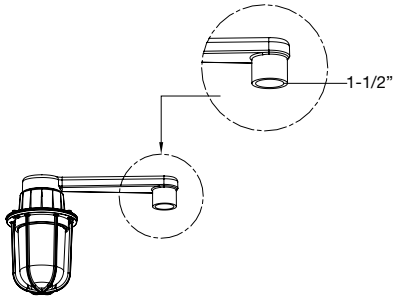
NN800E–N — 90° Wall



NN800F–N — 30° Stanchion



NN800H–N — 90° Stanchion



① *Any unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA.*

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NN800–N Series 23 W Compact Fluorescent Luminaire

Photometric Data

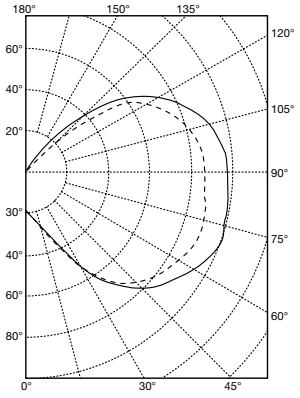
Zone 2 – 21 and 22. Restricted Breathing

Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

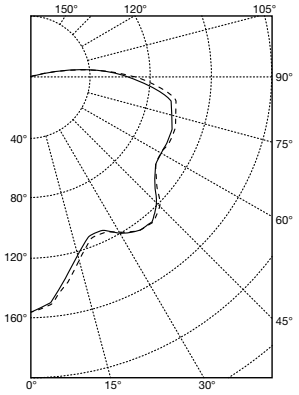
NN800-N

	0–180	90–270
0	19.33	19.33
5	20.34	19.94
10	23.35	22.50
15	27.48	28.04
20	33.00	34.54
25	40.47	42.08
30	52.71	52.83
35	63.12	63.36
40	70.77	72.60
45	75.59	79.96
50	79.64	85.60
55	82.92	89.54
60	85.46	93.32
65	87.98	97.74
70	89.48	99.86
75	88.74	99.33
80	87.84	98.79
85	86.47	97.54
90	86.27	97.34
95	85.85	96.91
100	84.00	94.50
105	81.48	91.18
110	77.28	86.31
115	72.26	79.91
120	66.92	73.23
125	59.22	63.82
130	42.68	51.98
135	19.38	37.95
140	9.26	23.26
145	4.62	11.76
150	1.96	4.18
155	0.67	1.04
160	0.24	0.36
165	0.21	0.21
170	0	0
175	0	0
180	0	0



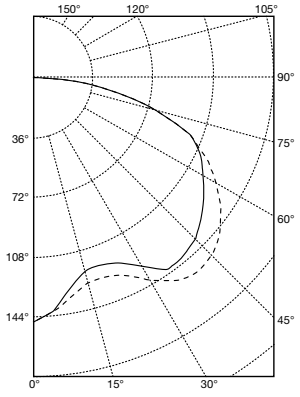
NN800-N with NEREA104

	0–180	90–270
0	157.08	157.08
5	151.56	152.92
10	136.23	140.16
15	121.69	125.80
20	113.61	115.86
25	113.49	114.41
30	120.82	120.79
35	125.96	126.08
40	125.74	127.16
45	119.71	121.83
50	107.22	109.70
55	101.46	101.89
60	100.36	100.88
65	100.75	101.85
70	100.09	101.66
75	97.35	99.82
80	94.62	97.61
85	81.84	86.54
90	63.29	68.43
95	43.70	47.74
100	23.92	26.87
105	5.94	7.90
110	1.62	1.67
115	0.99	1.04
120	0.59	0.59
125	0.59	0.58
130	0.59	0.59
135	0.61	0.61
140	0.62	0.62
145	0.62	0.63
150	0.65	0.63
155	0.65	0.63
160	0.65	0.65
165	0.65	0.65
170	0	0
175	0	0
180	0	0



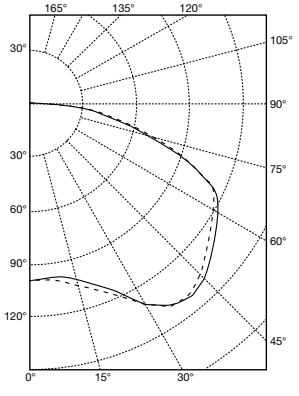
NN800-N with NEREA204

	0–180	90–270
0	146.98	146.98
5	141.12	142.16
10	128.04	133.98
15	120.72	128.13
20	120.11	127.44
25	123.03	130.88
30	131.41	141.39
35	141.22	149.84
40	140.35	153.18
45	137.54	151.85
50	132.07	145.89
55	125.50	137.08
60	118.17	126.72
65	111.22	115.71
70	100.57	99.54
75	78.59	76.02
80	54.51	51.19
85	30.56	27.21
90	10.11	7.06
95	1.99	1.90
100	1.13	1.08
105	0.53	0.49
110	0.49	0.49
115	0.53	0.55
120	0.57	0.61
125	0.62	0.63
130	0.65	0.67
135	0.67	0.70
140	0.67	0.71
145	0.69	0.71
150	0.69	0.71
155	0.71	0.71
160	0.71	0.70
165	0.71	0.69
170	0	0
175	0	0
180	0	0



NN800-N with NEREA304

	0–180	90–270
0	100.77	100.77
5	100.11	100.24
10	99.36	101.78
15	102.90	106.36
20	109.85	111.93
25	117.47	119.17
30	130.77	130.29
35	139.34	139.92
40	142.64	141.03
45	140.42	137.46
50	134.41	130.78
55	128.23	125.25
60	123.24	121.19
65	116.01	114.87
70	96.73	98.42
75	71.59	74.92
80	48.35	51.72
85	27.02	30.05
90	9.43	11.75
95	1.88	1.99
100	1.13	1.19
105	0.70	0.76
110	0.46	0.47
115	0.51	0.53
120	0.57	0.57
125	0.61	0.59
130	0.63	0.62
135	0.66	0.65
140	0.70	0.66
145	0.66	0.66
150	0.67	0.66
155	0.66	0.65
160	0.65	0.62
165	0.63	0.61
170	0	0
175	0	0
180	0	0



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Nutsteel® NN800–N Series 160 W Mixed Luminaire Photometric Data

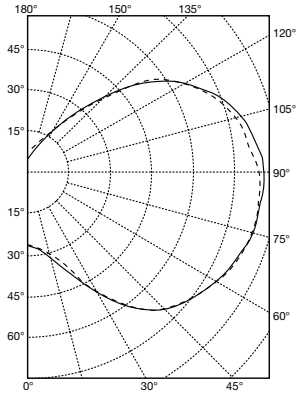
Zone 2 – 21 and 22. Restricted Breathing

Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

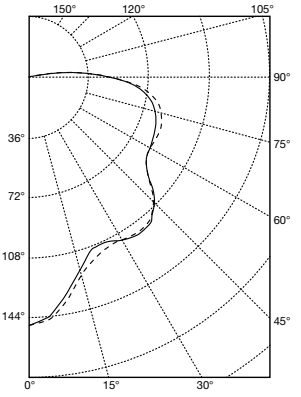
NN800-N

	0–180	90–270
0	29.12	29.12
5	30.53	29.51
10	31.09	32.14
15	33.35	34.63
20	37.19	40.57
25	46.49	45.93
30	54.50	54.35
35	61.32	61.05
40	66.47	66.45
45	70.94	70.82
50	73.86	73.40
55	75.59	75.47
60	77.68	77.80
65	80.12	79.56
70	80.82	80.71
75	80.57	81.47
80	80.58	81.56
85	80.45	81.71
90	79.44	81.30
95	75.78	78.75
100	73.89	76.33
105	70.70	73.21
110	67.77	69.00
115	62.44	63.38
120	55.86	56.68
125	48.51	49.11
130	34.29	39.62
135	14.15	26.96
140	7.38	15.78
145	3.45	7.99
150	1.08	2.73
155	0.49	0.82
160	0.20	0.31
165	0.18	0.18
170	0	0
175	0	0
180	0	0



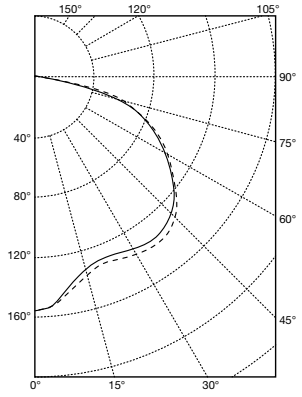
NN800-N with NEREA104

	0–180	90–270
0	148.55	148.55
5	144.18	145.63
10	132.14	135.13
15	119.11	123.08
20	110.69	115.23
25	109.07	112.51
30	112.31	112.84
35	115.37	114.07
40	114.68	112.64
45	107.57	105.90
50	93.29	94.11
55	85.43	86.91
60	83.44	84.51
65	82.57	84.90
70	81.01	83.99
75	78.58	82.11
80	73.84	77.45
85	64.48	68.12
90	48.77	52.50
95	26.26	27.15
100	10.01	10.20
105	2.55	2.42
110	1.59	1.59
115	1.08	1.08
120	0.83	0.83
125	0.83	0.83
130	0.83	0.83
135	0.89	0.83
140	0.89	0.83
145	0.89	0.83
150	0.89	0.89
155	0.89	0.89
160	0.96	0.89
165	0.89	0.89
170	0	0
175	0	0
180	0	0



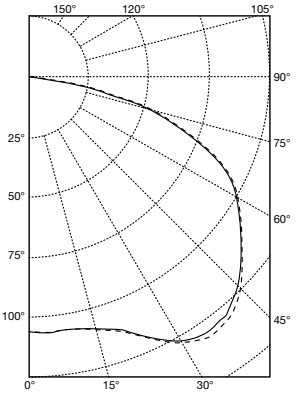
NN800-N with NEREA204

	0–180	90–270
0	156.60	156.60
5	153.45	153.80
10	141.53	144.96
15	132.68	136.31
20	129.15	132.41
25	130.37	133.77
30	132.42	136.70
35	134.41	138.45
40	133.51	137.87
45	129.67	132.54
50	122.16	124.15
55	111.32	112.90
60	100.36	102.88
65	90.29	92.15
70	77.14	79.34
75	57.20	59.37
80	31.55	32.97
85	13.02	13.33
90	3.46	3.58
95	1.85	1.78
100	1.15	1.08
105	0.70	0.70
110	0.70	0.64
115	0.76	0.76
120	0.76	0.76
125	0.83	0.83
130	0.83	0.89
135	0.96	0.96
140	0.96	0.96
145	0.96	0.96
150	0.96	0.96
155	1.02	0.96
160	1.02	1.02
165	1.02	1.02
170	0	0
175	0	0
180	0	0



NN800-N with NEREA304

	0–180	90–270
0	105.55	105.55
5	106.32	105.62
10	106.13	106.01
15	107.54	108.32
20	111.39	112.48
25	119.54	119.87
30	127.19	126.99
35	129.50	131.61
40	128.28	130.09
45	122.95	124.29
50	115.37	115.64
55	107.41	107.66
60	99.84	100.54
65	89.82	91.23
70	73.51	75.14
75	53.16	55.08
80	29.53	30.48
85	13.03	13.13
90	3.79	3.76
95	2.04	1.78
100	1.27	1.21
105	0.83	0.83
110	0.70	0.70
115	0.76	0.76
120	0.76	0.76
125	0.83	0.83
130	0.83	0.83
135	0.89	0.89
140	0.89	0.89
145	0.96	0.89
150	0.89	0.89
155	0.89	0.89
160	0.89	0.89
165	0.89	0.89
170	0	0
175	0	0
180	0	0



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Nutsteel® NE850 Series HID Luminaires

Explosionproof. Mercury Vapor, Metal Halide, High Pressure Sodium

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

Applications

- For installation in areas where there is risk of explosion.
- Typical applications include:
  - — Chemical plants
  - — Petrochemical plants
  - — Pharmaceuticals facilities
  - — Food processing facilities
  - — Paint and varnish facilities
  - — Flammable material storage facilities

Features

- Standard ballast: 220 V, 60 Hz.
- High Power factor > 0.92.
- Manufactured in seven models:
  - — Ceiling, 30° wall, 45° wall and 90° wall mounts have four threaded entries.
  - — Pendant, 30° stanchion, and 90° stanchion mounts have one threaded entry.
- Supplied with guard.
- Lamp not supplied.
- Integral ballast.
- Optional NEREA or NTREA reflector is lightweight, durable and corrosion-resistant.
- Operating temperature: -20 °C up to +55 °C (-4 °F up to + 131 °F).
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.

Standard Materials

- Mounting hood, ballast body and guard: copperfree aluminum alloy
- Globe: thermal shock and impact resistant borosilicate glass
- Socket: anti-vibration reinforced porcelain
- Screws and washers: AISI 304 stainless steel
- Optional NEREA or NTREA reflector: anodized aluminum

Standard Finish

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NE850A**B**1H08.
- For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NE850A**M**1H08.
- For optional reflector, add the letter **A** for size 3 reflector, or **B** for a size 1 reflector to the end of the catalog number; example: NE850AN1H08**B**.
- For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NE850AN1H08B**A**.
- For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NE850AN1H08BA**1**.
- For voltage options, add **235** for 230/240 V, 50 Hz to the end of the catalog number; example: NE850AN1H08**235**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection: IP66
- INMETRO Certificate: TÜV 11.0022-X
- Ex Standard: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standard: ABNT NBR IEC 60529 (IP)

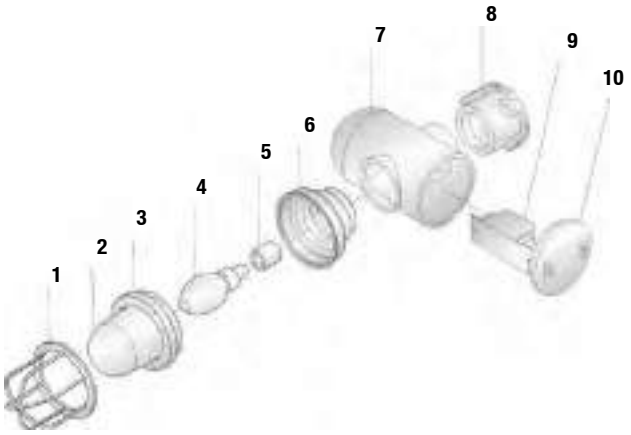


Ceiling Mount



Optional NEREA/NTREA Reflector

Technical Features



1 – Guard	**6 – Globe Base**
2 – Glass Globe	**7 – Ballast housing**
3 – Fixing ring	**8 – Mounting hood**
4 – Lamp	**9 – Ballast**
5 – Anti–vibration socket	**10 – Ballast cover**

Warning*: Do not use any other lamp than the one specified, at the risk of explosion. In order not to compromise safety, use only genuine parts.*

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Nutsteel® NE850 Series HID Luminaires

Explosionproof. Mercury Vapor, Metal Halide, High Pressure Sodium

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

Order using catalog numbering guide below or select catalog number from tables below and on following pages.

Catalog Numbering Guide

NE850	A	N	1	H	08	B	A	1	235
Series: NE850 - NE850 Series Zones 1, 2 and 21, 22 NBR IEC Certified	Mounting: A - Pendant B - Ceiling C - 30° Wall D - 45° Wall E - 90° Wall F - 30° Stanchion H - 90° Stanchion	Thread: N - NPT B - BSP M - Metric	Luminaire Size: *(Refer to table below)* 1 - Size 1 3 - Size 3	Lamp Type: H - Mercury Vapor M - Metal Halide S - High Pressure Sodium	Wattage: 07 - 70 W 08 - 80 W 10 - 100 W 12 - 125 W 15 - 150 W 25 - 250 W	Optional Reflector: A — Size 3 B — Size 1	Optional Reflector Material: A- Aluminum F - porcelain Steel	Optional Reflector Sizes: 1 - Shallow 2 - Standard 3 - Deep 4 - Angle	Voltage Option: Blank - 220, 60 Hz 235 - 230/240 V, 50 Hz ①

Lamp	Lamp Wattage	Ambient Temperature Rating	
		Ta = +40 °C (104 °F)	+55 °C (+131 °F)
Mercury Vapor	80	T3	T3
	125	T3	T3
	250	T3	T3
High Pressure Sodium	70	T3	T3
	100	T4	T4
	150	T4	T3
	250	T3	T3
Metal Halide	70	T3	T3
	150	T3	T3
	250	T3	T3

*① For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 250 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NE850AN1H25235** and standard reflector catalog number **NEREA202**.*

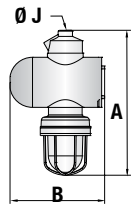
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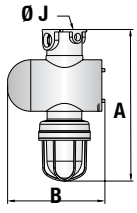
Nutsteel® NE850 Series HID Luminaires

Explosionproof. Mercury Vapor, Metal Halide, High Pressure Sodium

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

	Lamp Type and Wattage				Dimensions mm (in)					
	Mercury Vapor	High Pressure Sodium	Metal Halide	Socket	Ø J ①	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ②③④
Pendent										
	80	—	—	E27	3/4”	514 (20.24)	236 (9.29)	9.06 (19.97)	22.68 (1384.0)	**NE850AN1H08**
	125	—	—	E27	3/4”	514 (20.24)	236 (9.29)	9.06 (19.97)	22.68 (1384.0)	**NE850AN1H12**
	—	70	—	E27	3/4”	514 (20.24)	236 (9.29)	9.06 (19.97)	22.68 (1384.0)	**NE850AN1S07**
	—	—	70	E27	3/4”	514 (20.24)	236 (9.29)	9.06 (19.97)	22.68 (1384.0)	**NE850AN1M07**
	—	—	150	E27	3/4”	514 (20.24)	236 (9.29)	9.06 (19.97)	22.68 (1384.0)	**NE850AN1M15**
	250	—	—	E40	3/4”	590 (23.23)	236 (9.29)	12.05 (26.57)	33.69 (2055.9)	**NE850AN3H25**
	—	100	—	E40	3/4”	590 (23.23)	236 (9.29)	12.05 (26.57)	33.69 (2055.9)	**NE850AN3S10**
	—	150	—	E40	3/4”	590 (23.23)	236 (9.29)	12.05 (26.57)	33.69 (2055.9)	**NE850AN3S15**
	—	250	—	E40	3/4”	590 (23.23)	236 (9.29)	12.05 (26.57)	33.69 (2055.9)	**NE850AN3S25**
	—	—	250	E40	3/4”	590 (23.23)	236 (9.29)	12.05 (26.57)	33.69 (2055.9)	**NE850AN3M25**
Ceiling										
	80	—	—	E27	3/4”	502 (19.76)	236 (9.29)	9.50 (20.94)	22.15 (1351.7)	**NE850BN1H08**
	125	—	—	E27	3/4”	502 (19.76)	236 (9.29)	9.50 (20.94)	22.15 (1351.7)	**NE850BN1H12**
	—	70	—	E27	3/4”	502 (19.76)	236 (9.29)	9.50 (20.94)	22.15 (1351.7)	**NE850BN1S07**
	—	—	70	E27	3/4”	502 (19.76)	236 (9.29)	9.50 (20.94)	22.15 (1351.7)	**NE850BN1M07**
	—	—	150	E27	3/4”	502 (19.76)	236 (9.29)	9.50 (20.94)	22.15 (1351.7)	**NE850BN1M15**
	250	—	—	E40	3/4”	578 (22.76)	236 (9.29)	12.50 (27.56)	33.02 (2015.0)	**NE850BN3H25**
	—	100	—	E40	3/4”	578 (22.76)	236 (9.29)	12.50 (27.56)	33.02 (2015.0)	**NE850BN3S10**
	—	150	—	E40	3/4”	578 (22.76)	236 (9.29)	12.50 (27.56)	33.02 (2015.0)	**NE850BN3S15**
	—	250	—	E40	3/4”	578 (22.76)	236 (9.29)	12.50 (27.56)	33.02 (2015.0)	**NE850BN3S25**
	—	—	250	E40	3/4”	578 (22.76)	236 (9.29)	12.50 (27.56)	33.02 (2015.0)	**NE850BN3M25**





① ***Ø J**: Ceiling, 30° wall, 45° wall and 90° wall mounts have four threaded entries. Pendant, 30° stanchion, and 90° stanchion mounts have one threaded entry. The 3/4" threaded entries can be replaced by M25; and the 1-1/2" can be replaced by M50. Contact your local sales representative for details*

② *For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NE850A**B**1H08.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NE850A**M**1H08.*

③ *For optional reflector, add the letter **A** for size 3 reflector, or **B** for a size 1 reflector to the end of the catalog number; example: NE850AN1H08**B**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NE850AN1H08B**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NE850AN1H08BA**1**.*

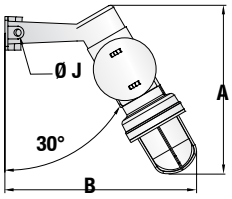
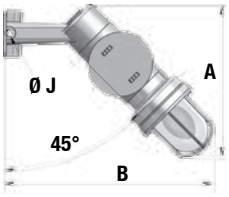
④ *For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 250 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NE850AN1H25235** and standard reflector catalog number **NEREA202**.*

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Nutsteel® NE850 Series HID Luminaires

Explosionproof. Mercury Vapor, Metal Halide, High Pressure Sodium

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

	Lamp Type and Wattage				Dimensions mm (in)					
	Mercury Vapor	High Pressure Sodium	Metal Halide	Socket	Ø J ①	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ②③④
30° Wall										
	80	—	—	E27	3/4"	542 (21.34)	476 (18.74)	10.78 (23.77)	48.24 (2943.8)	**NE850CN1H08**
	125	—	—	E27	3/4"	542 (21.34)	476 (18.74)	10.78 (23.77)	48.24 (2943.8)	**NE850CN1H12**
	—	70	—	E27	3/4"	542 (21.34)	476 (18.74)	10.78 (23.77)	48.24 (2943.8)	**NE850CN1S07**
	—	—	70	E27	3/4"	542 (21.34)	476 (18.74)	10.78 (23.77)	48.24 (2943.8)	**NE850CN1M07**
	—	—	150	E27	3/4"	542 (21.34)	476 (18.74)	10.78 (23.77)	48.24 (2943.8)	**NE850CN1M15**
	250	—	—	E40	3/4"	596 (23.46)	546 (21.50)	14.19 (31.28)	78.75 (4805.6)	**NE850CN3H25**
	—	100	—	E40	3/4"	596 (23.46)	546 (21.50)	14.19 (31.28)	78.75 (4805.6)	**NE850CN3S10**
	—	150	—	E40	3/4"	596 (23.46)	546 (21.50)	14.19 (31.28)	78.75 (4805.6)	**NE850CN3S15**
	—	250	—	E40	3/4"	596 (23.46)	546 (21.50)	14.19 (31.28)	78.75 (4805.6)	**NE850CN3S25**
	—	—	250	E40	3/4"	596 (23.46)	546 (21.50)	14.19 (31.28)	78.75 (4805.6)	**NE850CN3M25**
45° Wall										
	80	-		E27	3/4"	420 (16.54)	637 (25.08)	11.34 (25)	40.58 (2476.3)	**NE850DN1H08**
	125	-		E27	3/4"	420 (16.54)	637 (25.08)	11.34 (25)	40.58 (2476.3)	**NE850DN1H12**
	-	70		E27	3/4"	420 (16.54)	637 (25.08)	11.34 (25)	40.58 (2476.3)	**NE850DN1S07**
	-	-	70	E27	3/4"	420 (16.54)	637 (25.08)	11.34 (25)	40.58 (2476.3)	**NE850DN1M07**
	-	-	150	E27	3/4"	420 (16.54)	637 (25.08)	11.34 (25)	40.58 (2476.3)	**NE850DN1M15**
	250	-	-	E40	3/4"	486 (19.13)	704 (27.72)	14.75 (32.52)	59.83 (3651.1)	**NE850DN3H25**
	-	100	-	E40	3/4"	486 (19.13)	704 (27.72)	14.75 (32.52)	59.83 (3651.1)	**NE850DN3S10**
	-	150	-	E40	3/4"	486 (19.13)	704 (27.72)	14.75 (32.52)	59.83 (3651.1)	**NE850DN3S15**
	-	250	-	E40	3/4"	486 (19.13)	704 (27.72)	14.75 (32.52)	59.83 (3651.1)	**NE850DN3S25**
	-	-	250	E40	3/4"	486 (19.13)	704 (27.72)	14.75 (32.52)	59.83 (3651.1)	**NE850DN3M25**

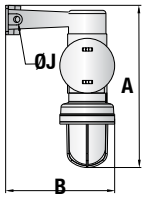
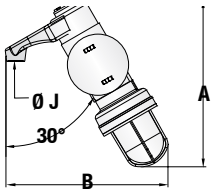
*① **Ø J**: Ceiling, 30° wall, 45° wall and 90° wall mounts have four threaded entries. Pendant, 30° stanchion, and 90° stanchion mounts have one threaded entry. The 3/4" threaded entries can be replaced by M25; and the 1-1/2" can be replaced by M50. Contact your local sales representative for details*
*② For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NE850A**B**1H08.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NE850A**M**1H08.*
*③ For optional reflector, add the letter **A** for size 3 reflector, or **B** for a size 1 reflector to the end of the catalog number; example: NE850AN1H08**B**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NE850AN1H08B**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NE850AN1H08BA**1**.*
*④ For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 250 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NE850AN1H25235** and standard reflector catalog number **NEREA202**.*

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Nutsteel® NE850 Series HID Luminaires

Explosionproof. Mercury Vapor, Metal Halide, High Pressure Sodium

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

	Lamp Type and Wattage				Dimensions mm (in)					
	Mercury Vapor	High Pressure Sodium	Metal Halide	Socket	Ø J ①	A	B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③④
90° Wall										
	80	—	—	E27	3/4”	532 (20.94)	408 (16.06)	11.34 (25.00)	40.58 (2476.3)	**NE850EN1H08**
	125	—	—	E27	3/4”	532 (20.94)	408 (16.06)	11.34 (25.00)	40.58 (2476.3)	**NE850EN1H12**
	—	70	—	E27	3/4”	532 (20.94)	408 (16.06)	11.34 (25.00)	40.58 (2476.3)	**NE850EN1S07**
	—	—	70	E27	3/4”	532 (20.94)	408 (16.06)	11.34 (25.00)	40.58 (2476.3)	**NE850EN1M07**
	—	—	150	E27	3/4”	532 (20.94)	408 (16.06)	11.34 (25.00)	40.58 (2476.3)	**NE850EN1M15**
	250	—	—	E40	3/4”	532 (20.94)	408 (16.06)	14.75 (32.52)	59.83 (3651.1)	**NE850EN3H25**
	—	100	—	E40	3/4”	532 (20.94)	408 (16.06)	14.75 (32.52)	59.83 (3651.1)	**NE850EN3S10**
	—	150	—	E40	3/4”	532 (20.94)	408 (16.06)	14.75 (32.52)	59.83 (3651.1)	**NE850EN3S15**
	—	250	—	E40	3/4”	532 (20.94)	408 (16.06)	14.75 (32.52)	59.83 (3651.1)	**NE850EN3S25**
	—	—	250	E40	3/4”	532 (20.94)	408 (16.06)	14.75 (32.52)	59.83 (3651.1)	**NE850EN3M25**
30° Stanchion										
	80	—	—	E27	1-1/2”	472 (18.58)	445 (17.52)	9.41 (20.75)	39.27 (2396.4)	**NE850FN1H08**
	125	—	—	E27	1-1/2”	472 (18.58)	445 (17.52)	9.41 (20.75)	39.27 (2396.4)	**NE850FN1H12**
	—	70	—	E27	1-1/2”	472 (18.58)	445 (17.52)	9.41 (20.75)	39.27 (2396.4)	**NE850FN1S07**
	—	—	70	E27	1-1/2”	472 (18.58)	445 (17.52)	9.41 (20.75)	39.27 (2396.4)	**NE850FN1M07**
	—	—	150	E27	1-1/2”	472 (18.58)	445 (17.52)	9.41 (20.75)	39.27 (2396.4)	**NE850FN1M15**
	250	—	—	E40	1-1/2”	545 (21.46)	500 (19.69)	12.25 (27.01)	65.94 (4023.9)	**NE850FN3H25**
	—	100	—	E40	1-1/2”	545 (21.46)	500 (19.69)	12.25 (27.01)	65.94 (4023.9)	**NE850FN3S10**
	—	150	—	E40	1-1/2”	545 (21.46)	500 (19.69)	12.25 (27.01)	65.94 (4023.9)	**NE850FN3S15**
	—	250	—	E40	1-1/2”	545 (21.46)	500 (19.69)	12.25 (27.01)	65.94 (4023.9)	**NE850FN3S25**
	—	—	250	E40	1-1/2”	545 (21.46)	500 (19.69)	12.25 (27.01)	65.94 (4023.9)	**NE850FN3M25**

*① Ø **J**: Ceiling, 30° wall, 45° wall and 90° wall mounts have four threaded entries. Pendant, 30° stanchion, and 90° stanchion mounts have one threaded entry. The 3/4" threaded entries can be replaced by M25; and the 1-1/2" can be replaced by M50. Contact your local sales representative for details*
*② For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NE850A**B**1H08.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NE850A**M**1H08.*
*③ For optional reflector, add the letter **A** for size 3 reflector, or **B** for a size 1 reflector to the end of the catalog number; example: NE850AN1H08**B**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NE850AN1H08B**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NE850AN1H08BA**1**.*
*④ For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 250 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NE850AN1H25235** and standard reflector catalog number **NEREA202**.*

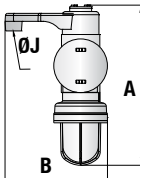
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Nutsteel® NE850 Series HID Luminaires

Explosionproof. Mercury Vapor, Metal Halide, High Pressure Sodium

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

	Lamp Type and Wattage				Dimensions mm (in)					
	Mercury Vapor	High Pressure Sodium	Metal Halide	Socket	Ø J ①	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ②③④
90° Stanchion										
	80	—	—	E27	1-1/2"	524 (20.63)	398 (15.67)	9.60 (21.16)	38.99 (2379.3)	**NE850HN1H08**
	125	—	—	E27	1-1/2"	524 (20.63)	398 (15.67)	9.60 (21.16)	38.99 (2379.3)	**NE850HN1H12**
	—	70	—	E27	1-1/2"	524 (20.63)	398 (15.67)	9.60 (21.16)	38.99 (2379.3)	**NE850HN1S07**
	—	—	70	E27	1-1/2"	524 (20.63)	398 (15.67)	9.60 (21.16)	38.99 (2379.3)	**NE850HN1M07**
	—	—	150	E27	1-1/2"	524 (20.63)	398 (15.67)	9.60 (21.16)	38.99 (2379.3)	**NE850HN1M15**
	250	—	—	E40	1-1/2"	598 (23.54)	398 (15.67)	12.4 (27.34)	57.59 (3514.4)	**NE850HN3H25**
	—	100	—	E40	1-1/2"	598 (23.54)	398 (15.67)	12.4 (27.34)	57.59 (3514.4)	**NE850HN3S10**
	—	150	—	E40	1-1/2"	598 (23.54)	398 (15.67)	12.4 (27.34)	57.59 (3514.4)	**NE850HN3S15**
	—	250	—	E40	1-1/2"	598 (23.54)	398 (15.67)	12.4 (27.34)	57.59 (3514.4)	**NE850HN3S25**
	—	—	250	E40	1-1/2"	598 (23.54)	398 (15.67)	12.4 (27.34)	57.59 (3514.4)	**NE850HN3M25**



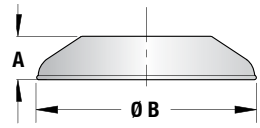
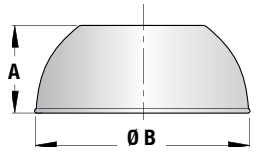
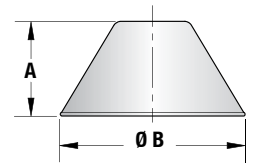
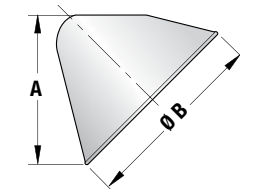
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*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NE850AN1H08B**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NE850AN1H08BA**1**.*
*④ For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 250 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NE850AN1H25235** and standard reflector catalog number **NEREA202**.*

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Nutsteel® NE850 Series HID Luminaires

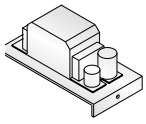
Explosionproof. Mercury Vapor, Metal Halide, High Pressure Sodium

Reflectors

	Luminaire Type			Dimension (in/mm) A	Dimension (in/mm) Ø B	Weight (lb/kg)	Volume (in^3/dm^3)	Catalog Number ①
Shallow Dome								
	NE850AN1	NE850DN1	NE850HN1	65 (2.56)	365 (14.37)	0.78 (1.72)	10.90 (665.2)	**NTREA104**
	NE850BN1	NE850EN1						
	NE850CN1	NE850FN1						
	NE850AN3	NE850DN3	NE850HN3	78 (3.07)	410 (16.14)	0.65 (1.43)	16.60 (1013.0)	**NEREA102**
	NE850BN3	NE850EN3						
	NE850CN3	NE850FN3						
Standard Dome								
	NE850AN1	NE850DN1	NE850HN1	110 (4.33)	370 (14.57)	0.85 (1.87)	18.20 (1110.6)	**NTREA202**
	NE850BN1	NE850EN1						
	NE850CN1	NE850FN1						
	NE850AN3	NE850DN3	NE850HN3	135 (5.31)	410 (16.14)	1.08 (2.38)	26.40 (1611.0)	**NEREA202**
	NE850BN3	NE850EN3						
	NE850CN3	NE850FN3						
Deep Dome								
	NE850AN1	NE850DN1	NE850HN1	115 (4.53)	247 (9.72)	0.43 (0.95)	9.10 (555.3)	**NTREA304**
	NE850BN1	NE850EN1						
	NE850CN1	NE850FN1						
	NE850AN3	NE850DN3	NE850HN3	130 (5.12)	370 (14.57)	0.63 (1.39)	23.20 (1415.8)	**NEREA302**
	NE850BN3	NE850EN3						
	NE850CN3	NE850FN3						
Angle								
	NE850AN1	NE850DN1	NE850HN1	165 (6.50)	270 (10.63)	0.44 (0.97)	10.50 (640.7)	**NTREA404**
	NE850BN1	NE850EN1						
	NE850CN1	NE850FN1						
	NE850AN3	NE850DN3	NE850HN3	225 (8.86)	360 (14.17)	0.52 (1.15)	32.80 (2001.6)	**NEREA402**
	NE850BN3	NE850EN3						
	NE850CN3	NE850FN3						

Galvanized steel chassis with high-power ballast supplied — For Use With Any Mounting Hood

Description	Size	Catalog Number
Mercury Vapor 80 W	1	**NFCH850EH08**
Metal Halide 70 W	1	**NFCH850EM07**
Metal Halide 150 W	1	**NFCH850EM15**
Mercury Vapor 125 W	1	**NFCH850EH12**
High Pressure Sodium 70 W	1	**NFCH850ES07**
Mercury Vapor 250 W	3	**NFCH850EH25**
High Pressure Sodium 100 W	3	**NFCH850ES10**
High Pressure Sodium 150 W	3	**NFCH850ES15**
High Pressure Sodium 250 W	3	**NFCH850ES25**
Metal Halide 250 W	3	**NFCH850EM25**



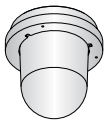
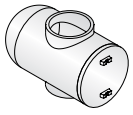
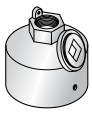
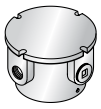
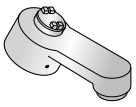
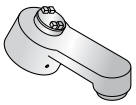
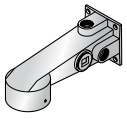
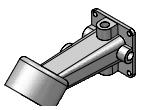
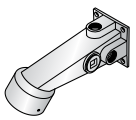
① *For reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position. Example: NTRE**F**103.*

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Nutsteel® NE850 Series HID Luminaires

Explosionproof. Mercury Vapor, Metal Halide, High Pressure Sodium

Accessories

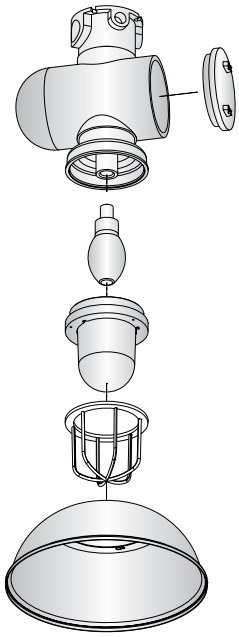
	Description	Luminaire Type				Catalog Number
	Protective guard	NE850AN1 NE850BN1	NE850CN1 NE850DN1	NE850EN1 NE850FN1	NE850HN1	**NFGRD851EA**
		NE850AN3 NE850BN3	NE850CN3 NE850DN3	NE850EN3 NE850FN3	NE850HN3	**NFGRD853EA**
	Light fixture assembly (Borosilicate globe + Fixing ring + Glass support)	NE850AN1 NE850BN1	NE850CN1 NE850DN1	NE850EN1 NE850FN1	NE850HN1	**NECJT851EA**
		NE850AN3 NE850BN3	NE850CN3 NE850DN3	NE850EN3 NE850FN3	NE850HN3	**NECJT853EA**
	Ballast housing	NE850A NE850B	NE850C NE850D	NE850E NE850F	NE850H	**NFALJ850EA**
	Pendant mounting bracket	NE850A		3/4" NPT Bracket		**NFACS85AN**
				3/4" BSP Bracket		**NFACS85AB**
				M25 Bracket		**NFACS85AM**
				1 - 1/4" NPT Plug		**NEBJS04N**
	Ceiling mounting bracket with 3 threaded entries	NE850B		3/4" NPT Bracket		**NFACS85BN**
				3/4" BSP Bracket		**NFACS85BB**
				M25 Bracket		**NFACS85BM**
				1 - 1/4" NPT Plug		**NEBJS04N**
	30° Stanchion mounting bracket for mounting on pole	NE850F		3/4" BSP Bracket		**NFACS85FB**
				1-1/2" NPT Bracket		**NFACS25FN**
				M50 Bracket		**NFACS25FM**
				Inspection Cover		**NFTAMIE**
	90° Stanchion mounting bracket for mounting on pole	NE850H		3/4" BSP Bracket		**NFACS85HB**
				1-1/2" NPT Bracket		**NFACS25HN**
				M50 Bracket		**NFACS25HM**
				Inspection Cover		**NFTAMIE**
	90° Wall mounting bracket for mounting on wall	NE850E		3/4" NPT Bracket		**NFACS25EN**
				3/4" BSP Bracket		**NFACS85EB**
				M25 Bracket		**NFACS25EM**
				1 - 1/4" NPT Plug		**NEBJS05N**
	45° Wall type mounting bracket for mounting on wall	NE850D		3/4" NPT Bracket		**NFACS25DN**
				3/4" BSP Bracket		**NFACS85DB**
				M25 Bracket		**NFACS25DM**
				1 - 1/4" NPT Plug		**NEBJS05N**
	30° Wall type mounting bracket for mounting on wall	NE850C		3/4" NPT Bracket		**NFACS25CN**
				3/4" BSP Bracket		**NFACS85CB**
				M25 Bracket		**NFACS25CM**
				1 - 1/4" NPT Plug		**NEBJS05NA**

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
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Nutsteel® NE850 Series HID Luminaires

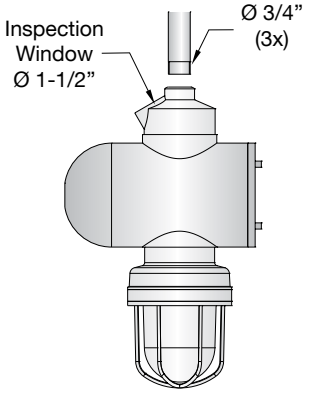
Explosionproof. Mercury Vapor, Metal Halide, High Pressure Sodium

Installation and Maintenance

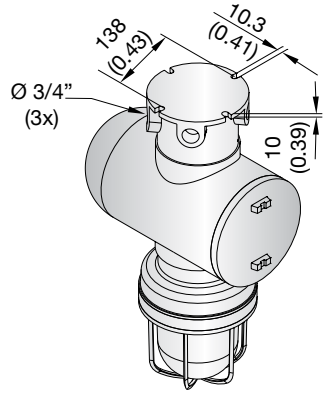


Mounting Details ① — Dimensions in Millimeters (Inches)

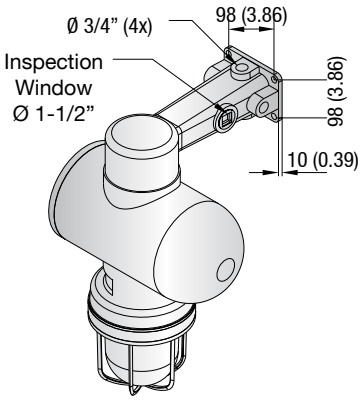
NE850A — Pendant



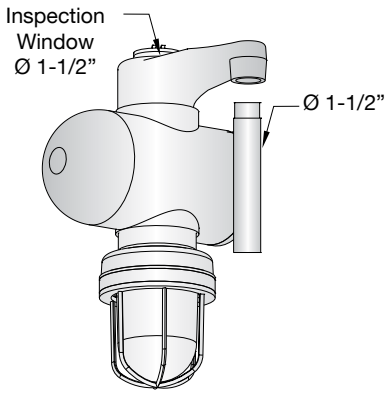
NE850B — Ceiling



NE850C, D, E — Wall

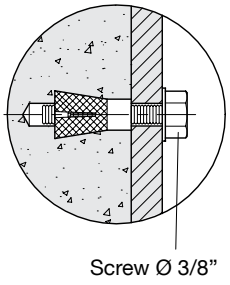


NE850F, H — Stanchion



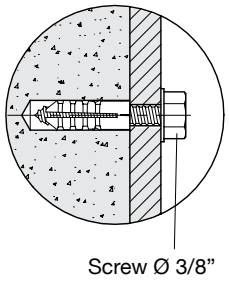
For Affixing to Concrete

Steel anchor bolt (not included)



For Affixing to Masonry

Nylon bushing (not included)



① *In installations with conduit, it is recommended to use a sealing fitting, for all conduit outlets.*

- *Entry and exit of electrical conductors must be done with sealing unit or explosionproof cable glands.*
- *Any unused threaded entries must be sealed with an aluminum plug: NEBJS02NA.*

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A.T.X.® Areamaster ATEX PN Series Floodlights

Zone 2 – 21 and 22. Metal Halide, High Pressure Sodium, Mercury Vapor

Listed for simultaneous exposure to gas, combustible dusts and flammable gases or vapors.

ATEX/IEC:
Zone 2 – 21 and 22
Ⓔx II 2 D - Ⓔx II 3 GD
IP66 - IK07/08

NBR IEC — Size M Only:
Zone 2 and 22
Ex nR IIC Gc
Ex tc IIIC Dc
IP66

Applications

- Powerful, efficient floodlights for large areas such as industrial complexes and ship loading areas.
- Rated for use in hazardous areas.

Features

- Highly efficient, integrally ballasted floodlight. Has compact, lightweight, yet rugged die cast aluminum construction.
- Simple installation and maintenance.
- Integral ballast:
  — ATEX/IEC: 230/240 V, 50 Hz
  — NBR IEC: 220 V, 60 Hz
- One piece lens cover.
- Heavy duty, high temperature silicone rubber gasket, firmly seated.
- Socket: E40 (E27 for 70 W HPS version).
- Reflectors: double segment compound parabolic with finish for maximum efficiency.
- Mounting: yoke mount.

Standard Materials

- Ballast housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Socket: heavy duty porcelain with heavy gauge brass shell
- Reflector: finished aluminum
- Yoke mount: zinc plated steel
- Bolts: stainless steel

Standard Finishes

- Ballast housing, lens cover, yoke and pole mount: architectural bronze polyester
- Socket: porcelain

ATEX/IEC Certifications and Compliances

- Size M — Certification Type: PJn
  — Gas: Zone 2
    – Conforming to ATEX 94/9/CE: CE Ⓔx 3 G
    – ATEX/IEC Protection: Ex nR II
    – T Rating: T2 to T4
    – Ambient Temperature: +40 °C to +55 °C (+104 °F to +131 °F)
  — Dust: Zone 22
    – Conforming to ATEX 94/9/CE: CE Ⓔx II 3 D
    – ATEX/IEC Protection: Ex tD A22
    – Surface Temperature: T117 °C to T228 °C (T243 °F to T442 °F)
  — Gas: Zone 2 and Dust: Zone 22
    – Ambient Temperature: +40 °C to +55 °C (+104 °F to +131 °F)
    – ATEX Certificate: LCIE 08 ATEX 6035X
    – IEC Certificate: IECEx LCI 04.0015
    – Other Certifications: GOST R
    – Impact Resistance (shock): IK07
  — Dust: Zone 21
    – Conforming to ATEX 94/9/CE: CE Ⓔx II 2 D
    – ATEX/IEC Protection: Ex tD A21
    – Surface Temperature: T65 °C to T136 °C (T149 °F to T277 °F)
    – Ambient Temperature: -20 °C to +40 °C (-4 °F to +104 °F)
    – ATEX Certificate: LCIE 02 ATEX 6246X
    – Impact Resistance (shock): IK07 with glass diffuser, IK08 with polycarbonate diffuser
    — CE Declaration of Conformity: 50251
    — Index of Protection (solid and liquid): IP66
- Size G — Certification Type: PJn
  — Gas: Zone 2
    – Conforming to ATEX 94/9/CE: CE Ⓔx II 3 G
    – ATEX/IEC Protection: Ex nR II
    – T Rating: T3
  — Dust: Zone 22
    – Conforming to ATEX 94/9/CE: CE Ⓔx II 3 D
    – ATEX/IEC Protection: Ex tD A22
    – Surface Temperature: T187 °C to T192 °C (T369 °F to T378 °F)
  — Gas: Zone 2 and Dust: Zone 22
    – Ambient Temperature: +40 °C to +55 °C (+104 °F to +131 °F)
    – CE Declaration of Conformity: 50215
    – ATEX Certificate: LCIE 08 ATEX 6035X
    – IEC Certificate: IECEx LCI 04.0015
    – Other Certifications: GOST R
    – Impact Resistance (shock): IK07
  — Dust: Zone 21
    – Conforming to ATEX 94/9/CE: CE 008 Ⓔx II 2 D
    – ATEX/IEC Protection: Ex tD A21
    – Surface Temperature: T121 °C to T182 °C (T250°F to T360°F)
    – Ambient Temperature: -20 °C to +40 °C (-4 °F to +104 °F)
    – CE Declaration of Conformity: 50274
    – ATEX Certificate: LCIE 02 ATEX 6246X
    – Impact Resistance (shock): IK07 with glass diffuser, IK08 with polycarbonate diffuser
  — Index of Protection (solid and liquid): IP66
- Ex Standards: EN/IEC 60079-0, 60079-15, 61241-0, 61241-1
- Product Standards: EN/IEC 60598-1
- EMC Standards: EN/IEC 55015, 61547
- Other Standards: EN/IEC 60529 (IP)



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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Zone 2 – 21 and 22
Ⓔx II 2 D - Ⓔx II 3 GD
IP66 - IK07/08

NBR IEC — Size M Only:
Zone 2 and 22
Ex nR IIC Gc
Ex tc IIIC Dc
IP66

NBR IEC Brazilian Certifications and Compliances

- Size M - Certification Type: PJn
  - — Gas: Zone 2
    - – IEC Marking: Ex nR IIC Gc
  - — Dust: Zone 22
    - – IEC Marking: Ex tc IIIC Dc
- Ambient temperature: -20 °C to +55 °C (-4°F to +131 °F)
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0394-X
- Ingress Protection (solid and liquid): IP66
- Ex Standards: ABNT NBR IEC 60079-0, 60079-15, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — Areamaster ATEX PN Series Floodlights

PN
Series:
PN - PN Series
Zone 2 – 21 and 22
ATEX/IEC Certified

N PN - PN Series
Zone 2 – 21 and 22
NBR IEC Certified

M
Body Size:
P - Small ③
M - Medium
L - Large ③

1
Mounting:
1 - Yoke
5 - Pole Slip-fit ③

L
Lamp Type:
H - Metal Halide
L - High Pressure Sodium
M - Mercury Vapor

25
Wattage:
70 - 70 W
15 - 150 W
25 - 250 W
40 - 400 W ①
99 - 1000 W ②③

A
Entry Size:
A - M20

G
Diffuser:
G - Glass
P - Polycarbonate ②

XJ
Options:
225 - 220 Vac, 50 Hz
(Magnetic Ballast)
XJ - 230/240 Vac, 50 Hz
(Magnetic Ballast)
XN - 220 Vac 60 Hz
(Magnetic Ballast) ④

S
Options:
S - Stainless Steel
Housing ③

① 400 Watt is rated for Zones 21-22 and 1000 Watt is rated for Zones 2-22 when used with large body. Select glass diffuser.
② Polycarbonate diffuser is not rated for use in Zones 2-22.
③ Not certified for use in NBR IEC governed locations.
④ Certified for use in NBR IEC governed locations only. Not for use in NEC/CEC or ATEX/IEC governed locations.

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Zone 2 – 21 and 22. Metal Halide, High Pressure Sodium, Mercury Vapor

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ATEX/IEC:
Zone 2 – 21 and 22
Ⓔx II 2 D - Ⓔx II 3 GD
IP66 - IK07/08

NBR IEC — Size M Only:
Zone 2 and 22
Ex nR IIC Gc
Ex tc IIIC Dc
IP66

Zone 21 (Dust) ①

Operating Position / Lamp Type and Wattage	Dust Surface Temperatures for Ta = +40 °C (+104 °F) — Glass Diffuser	Dust Surface Temperatures for Ta = +40 °C (+104 °F) — Polycarbonate Diffuser	Time Before Opening in Minutes
Body Size: M — 70 W High Pressure Sodium	+75 °C (+167 °F)	+65 °C (+149 °F)	50
Body Size: M — 150 W High Pressure Sodium	+101 °C (+214 °F)	+91 °C (+196 °F)	25
Body Size: M — 250 W High Pressure Sodium	+127 °C (+261 °F)	+117 °C (+243 °F)	15
Body Size: M — 250 W Metal Halide	+123 °C (+253 °F)	+113 °C (+235 °F)	15
Body Size: M — 250 W Mercury	+136 °C (+277 °F)	+131 °C (+268 °F)	15
Body Size: L ① — 400 W High Pressure Sodium	+126 °C (+26 °F)	+121 °C (+250 °F)	30
Body Size: L ① — 1000 W High Pressure Sodium	+177 °C (+351 °F)	–	30
Body Size: L ① — 1000 W Metal Halide	+182 °C (+360 °F)	–	30

Zone 2 (Gas)

Lamp Type and Wattage	T Rating for Ta = +40 °C (+104 °F)	T Rating for Ta = +50 °C (+122 °F)	T Rating for Ta = + 55 °C (+131 °F)
Body Size: M — 70 W High Pressure Sodium	T4	T4	T4
Body Size: M — 150 W High Pressure Sodium	T4	T4	T4
Body Size: M — 150 W Metal Halide	T4	T4	T4
Body Size: M — 250 W High Pressure Sodium	T3	T3	T3 — Cable T ° = +82 °C (+180 °F)
Body Size: M — 250 W Metal Halide	T3	T3	T3
Body Size: M — 250 W Mercury	T3	T3	T3 — Cable T ° = +81 °C (+178 °F)
Body Size: M — 400 W High Pressure Sodium	T3	T3 — Cable T ° = +87 °C (+187 °F)	T2 — Cable T ° = +92 °C (+198 °F)
Body Size: M — 400 W Metal Halide	T2	T2 — Cable T ° = +84 °C (+183 °F)	T2 — Cable T ° = +89 °C (+192 °F)
Body Size: M — 400 W Mercury	T2	T2 — Cable T ° = +84 °C (+183 °F)	T2 — Cable T ° = +89 °C (+192 °F)
Body Size: L ① — 1000 W High Pressure Sodium	T3	T3	–
Body Size: L ① — 1000 W Metal Halide	T3	T3	–

Zone 22 (Dust)

Lamp Type and Wattage	T Rating for Ta = +40 °C (+104 °F)	T Rating for Ta = +50 °C (+122 °F)	T Rating for Ta = + 55 °C (+131 °F)
Body Size: M — 70 W High Pressure Sodium	117 °C (242 °F)	–	–
Body Size: M — 150 W High Pressure Sodium	130 °C (266 °F)	–	–
Body Size: M — 150 W Metal Halide	128 °C (262 °F)	–	–
Body Size: M — 250 W High Pressure Sodium	160 °C (320 °F)	–	T3 — Cable T ° = +82 °C (+180 °F)
Body Size: M — 250 W Metal Halide	175 °C (347 °F)	–	–
Body Size: M — 250 W Mercury	181 °C (358 °F)	–	T3 — Cable T ° = +81 °C (+178 °F)
Body Size: M — 400 W High Pressure Sodium	198 °C (388 °F)	T3 — Cable T ° = +87 °C (+187 °F)	T2 — Cable T ° = +92 °C (+198 °F)
Body Size: M — 400 W Metal Halide	228 °C (442 °F)	T2 — Cable T ° = +84 °C (+183 °F)	T2 — Cable T ° = +89 °C (+192 °F)
Body Size: M — 400 W Mercury	227 °C (441 °F)	T2 — Cable T ° = +84 °C (+183 °F)	T2 — Cable T ° = +89 °C (+192 °F)
Body Size: L ① — 1000 W High Pressure Sodium	+187 °C (+369 °F) for Ta = +50 °C (+122 °F)	Cable T ° = +90 °C (+194 °F)	–
Body Size: L ① — 1000 W Metal Halide	+192 °C (+378 °F) for Ta = +50 °C (+122 °F)	Cable T ° = +90 °C (+194 °F)	–

① *Not certified for use in NBR IEC governed locations.*

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Zone 2 – 21 and 22. Metal Halide, High Pressure Sodium, Mercury Vapor

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ATEX/IEC:
Zone 2 – 21 and 22
Ⓔx II 2 D - Ⓔx II 3 GD
IP66 - IK07/08

Lamp Type and Wattage	Weight kg (lb)	Volume dm^3 (in^3)	Permissible lamps (not supplied)	Body Size	Catalog Number ATEX/IEC ③④
Standard with Lamp Glass Sealed on Frame					
70 W HPS	12.1 (26.7)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1L70AGXJ**
150 W HPS	12.9 (28.4)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1L15AGXJ**
250 W HPS	14.3 (31.5)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1L25AGXJ**
400 W HPS	16.0 (35.3)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1L40AGXJ** ①
400 W HPS	–	–	Ovoid/Tubular	Large	**PNL1L40AGXJ** ①
150 W MH	12.9 (28.4)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1H15AGXJ**
250 W MH	14.3 (31.5)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1H25AGXJ**
400 W MH	16.0 (35.3)	62.5 (3814)	Tubular	Medium	**PNM1H40AGXJ** ①
400 W MH	–	–	Ovoid/Tubular	Large	**PNL1H40AGXJ** ①
250 W MV	12.9 (28.4)	62.5 (3814)	Ovoid	Medium	**PNM1M25AGXJ**
400 W MV	13.8 (30.4)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1M40AGXJ** ①
With External Polycarbonate Weatherproof Protection ②					
70 W HPS	13.2 (29.1)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1L70APXJ**
150 W HPS	14.0 (30.9)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1L15APXJ**
250 W HPS	15.4 (34.0)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1L25APXJ**
400 W HPS	–	–	Ovoid/Tubular	Large	**PNL1L40APXJ** ①
150 W MH	14.0 (30.9)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1H15APXJ**
250 W MH	15.4 (34.0)	62.5 (3814)	Ovoid/Tubular	Medium	**PNM1H25APXJ**
400 W MH	–	–	Ovoid/Tubular	Large	**PNL1H40APXJ**
250 W MV	14.0 (30.9)	62.5 (3814)	Ovoid	Medium	**PNM1M25APXJ** ①

① 400 Watt is rated for Zones 21-22 and 1000 Watt is rated for Zones 2-22 when used with large body. Select glass diffuser.
② Polycarbonate diffuser is not rated for use in Zones 2-22.
*③ For a 220 Vac, 50 Hz, magnetic ballast, replace the letters **XJ** in the 10th and 11th positions with the letters **225**; example: PNP1L70AG**225**.*
*④ For a 220 Vac, 60 Hz, magnetic ballast, replace the letters **XJ** in the 10th and 11th positions with the letters **XN**; example: PNP1L70AG**XN**. Certified for use in NBR IEC governed locations only. Not for use in NEC/CEC or ATEX/IEC governed locations.*

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NBR IEC — Size M Only:
Zone 2 – 21 and 22
Ex nR IIC Gc
Ex tc IIIC Dc
IP66

Lamp Type and Wattage	Weight kg (lb)	Volume dm^3 (in^3)	Permissible lamps (not supplied)	Body Size	Catalog Number NBR IEC ③④
Standard with Lamp Glass Sealed on Frame					
70 W HPS	12.1 (26.7)	62.5 (3814)	Ovoid/Tubular	Medium	**NPNM1L70AGXJ**
150 W HPS	12.9 (28.4)	62.5 (3814)	Ovoid/Tubular	Medium	**NPNM1L15AGXJ**
250 W HPS	14.3 (31.5)	62.5 (3814)	Ovoid/Tubular	Medium	**NPNM1L25AGXJ**
400 W HPS	16.0 (35.3)	62.5 (3814)	Ovoid/Tubular	Medium	**NPNM1L40AGXJ**
150 W MH	12.9 (28.4)	62.5 (3814)	Ovoid/Tubular	Medium	**NPNM1H15AGXJ**
250 W MH	14.3 (31.5)	62.5 (3814)	Ovoid/Tubular	Medium	**NPNM1H25AGXJ**
400 W MH	16.0 (35.3)	62.5 (3814)	Tubular	Medium	**NPNM1H40AGXJ**
250 W MV	12.9 (28.4)	62.5 (3814)	Ovoid	Medium	**NPNM1M25AGXJ**
400 W MV	13.8 (30.4)	62.5 (3814)	Ovoid/Tubular	Medium	**NPNM1M40AGXJ**

*③ For a 220 Vac, 50 Hz, magnetic ballast, replace the letters **XJ** in the 10th and 11th positions with the letters **225**; example: PNP1L70AG**225**.*
*④ For a 220 Vac, 60 Hz, magnetic ballast, replace the letters **XJ** in the 10th and 11th positions with the letters **XN**; example: PNP1L70AG**XN**. Certified for use in NBR IEC governed locations only. Not for use in NEC/CEC or ATEX/IEC governed locations.*

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A.T.X.® Areamaster ATEX PN Series Floodlights

Zone 2 – 21 and 22. Metal Halide, High Pressure Sodium, Mercury Vapor

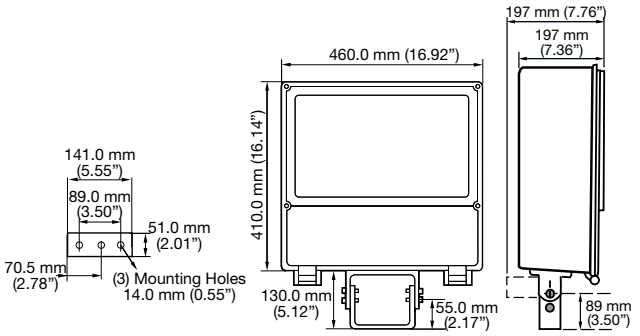
Listed for simultaneous exposure to gas, combustible dusts and flammable gases or vapors.

Accessories

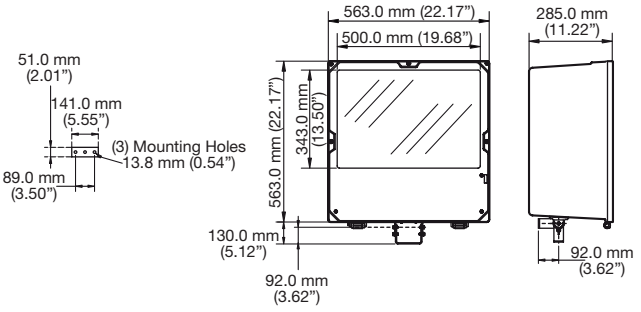
	Description	Catalog Number IECEx	Catalog Number NBR IEC
	Fall Prevention Kit 1.2 m (3.94 in) stainless steel chain for M20 cable entry	**FESCM20**	—
	Slip-Fitter Adapter — fits medium body	**GSF20**	—
	Slip-Fitter Adapter — fits large body/1000 Watt floodlight	**GAM8SF**	—

Dimensions in Millimeters (Inches)

Size M



Size L ①



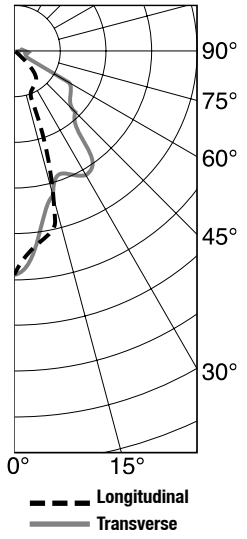
Photometric Data

Lamps: 70 W High Pressure Sodium

Polar curves for a 1000 lm flux, according to NF C 71–120
Luminaire symbol according to NF C 71–121

Degrees	Candelas (0–180)	Candelas (90–270)
0	487	487
5	439	461
10	416	387
15	372	324
20	208	290
25	129	294
30	116	319
35	111	318
40	101	289
45	86	193
50	70	150
55	84	141
60	62	132
65	22	88
70	9	15

Total Luminaire Efficiency = 74.6%



① *Not certified for use in NBR IEC governed locations.*

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Nutsteel® NT450 Series Floodlights

Weatherproof. Watertight. Mercury Vapor, High Pressure Sodium, Metal Halide

NBR IEC:
IP65

Applications

- Suitable for environments that contain moisture and/or areas where ignitable vapors, dust, moisture and corrosive atmospheres may be present.
- Ideal for use in areas such as:
  - — Airports and/or aircraft service areas
  - — Sports fields
  - — Railroad yards
  - — Loading/unloading yards
  - — Oil and gas loading docks
  - — Distilleries

Features

- Comes assembled with high-power factor ballast, cable glands and suitable cable for connecting the floodlight to the ballast housing and terminal strip for cables entry and exit.
- Mounting ring secured to the body with hinges and latches with captive wing nuts.
- Side levers for controlling and securing vertical movement.
- Terminal strip for internal connection.
- High Power Factor Ballast 220 V, 60 Hz.
- NPT threads standard.
- Lamp not supplied.

Standard Material

- Floodlight, housing, base and mounting ring: copperfree, cast aluminum alloy
- Hinges and latches: brass
- Screws, nuts and washers: AISI 304 stainless steel
- Sealing gasket: SBR rubber
- Internal reflector: anodized aluminum
- Lens: thermal shock resistant tempered glass
- Socket: reinforced porcelain

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

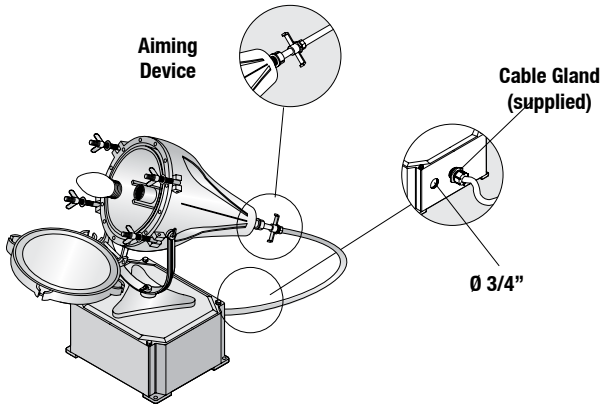
- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT450U**B**3H12.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP65
- Other Standards: ABNT NBR IEC 60529 (IP)



Illustrated Features



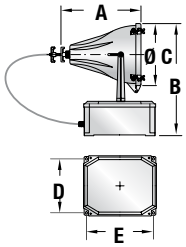
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Nutsteel® NT450 Series Floodlights

Weatherproof. Watertight. Mercury Vapor, High Pressure Sodium, Metal Halide

NBR IEC:
IP65

Lamp Type and Wattage				Dimensions in Millimeters (Inches)							
Mercury Vapor	High Pressure Sodium	Metal Halide	Socket	A	B	C	D	E	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
125	—	—	E27	410 (16.14)	600 (23.62)	330 (12.99)	205 (8.07)	260 (10.24)	13.60 (29.98)	72.76 (4440.1)	**NT450UN3H12**
250	—	—	E40	410 (16.14)	600 (23.62)	330 (12.99)	205 (8.07)	260 (10.24)	14.40 (31.75)	72.76 (4440.1)	**NT450UN3H25**
—	70	—	E27	410 (16.14)	600 (23.62)	330 (12.99)	205 (8.07)	260 (10.24)	13.60 (29.98)	72.76 (4440.1)	**NT450UN3S07**
—	150	—	E40	410 (16.14)	600 (23.62)	330 (12.99)	205 (8.07)	260 (10.24)	14.50 (31.97)	72.76 (4440.1)	**NT450UN3S15**
—	250	—	E40	410 (16.14)	600 (23.62)	330 (12.99)	205 (8.07)	260 (10.24)	15.70 (34.61)	72.76 (4440.1)	**NT450UN3S25**
—	—	150	E27	410 (16.14)	600 (23.62)	330 (12.99)	205 (8.07)	260 (10.24)	14.50 (31.97)	72.76 (4440.1)	**NT450UN3M15**
—	—	250	E40	410 (16.14)	600 (23.62)	330 (12.99)	205 (8.07)	260 (10.24)	15.70 (34.61)	72.76 (4440.1)	**NT450UN3M25**
125	70	150	E27	410 (16.14)	600 (23.62)	330 (12.99)	205 (8.07)	260 (10.24)	12.10 (26.68)	72.76 (4440.1)	**NT450UN3000** ②
250	250	250	E40	410 (16.14)	600 (23.62)	330 (12.99)	205 (8.07)	260 (10.24)	12.10 (26.68)	72.76 (4440.1)	**NT450UN3000M01** ②
400	—	—	E40	480 (18.90)	730 (28.74)	430 (16.93)	330 (12.99)	260 (10.24)	21.10 (46.52)	142.27 (8681.8)	**NT450UN5H40**
—	400	—	E40	480 (18.90)	730 (28.74)	430 (16.93)	330 (12.99)	260 (10.24)	22.60 (49.82)	142.27 (8681.8)	**NT450UN5S40**
—	—	400	E40	480 (18.90)	730 (28.74)	430 (16.93)	330 (12.99)	260 (10.24)	12.60 (27.78)	142.27 (8681.8)	**NT450UN5M40**
400	400	400	E40	480 (18.90)	730 (28.74)	430 (16.93)	330 (12.99)	260 (10.24)	18.10 (39.90)	142.27 (8681.8)	**NT450UN5000** ②



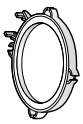
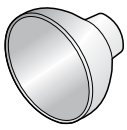
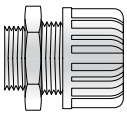
① *For BSP thread, replace with the letter **N** with the letter **B** in the 7th position, Example: NT450U**B**3H12.*
② *Ballast not included.*

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Nutsteel® NT450 Series Floodlights

Weatherproof. Watertight. Mercury Vapor, High Pressure Sodium, Metal Halide

Replacement Parts

	Description	Luminaire Type	Catalog Number
	Tempered Flat Glass	NT450UN3	**NXVPT403T**
		NT450UN5	**NXVPT405T**
	Lens Assembly Ring	NT450UN3	**NFARO403T**
		NT450UN5	**NFARO405T**
	Mounting Bracket	NT450UN3	**NFSUP403T**
		NT450UN5	**NFSUP405T**
	Aluminium Reflector	NT450UN3	**NXREF403TE**
		NT450UN5	**NXREF405TE**
	Cable Gland	NT450UN3	**NTPCA02N**
		NT450UN5	

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Nutsteel® NT950 Series Floodlights

Weatherproof. Watertight. Mercury Vapor, High Pressure Sodium, Metal Halide

NBR IEC:
IP66

Applications

- Suitable for environments that contain moisture and/or areas where ignitable vapors, dust, moisture and corrosive atmospheres may be present.
- Ideal for use in areas such as:
  - — Airports and/or aircraft service areas
  - — Sports fields
  - — Railroad yards
  - — Loading/unloading yards
  - — Oil and gas loading docks
  - — Distilleries

Features

- Highly efficient, integrally ballasted floodlight. Has compact, lightweight, yet rugged die cast aluminum construction.
- Simple installation and maintenance.
- Integral ballast; 220 V, 50/60 Hz.
- One piece lens cover.
- Heavy duty, high temperature silicone rubber gasket, firmly seated.
- Socket: E40 (E27 for 70 W HPS version).
- Reflectors: double segment compound parabolic with finish for maximum efficiency.
- Mounting: yoke mount.

Standard Materials

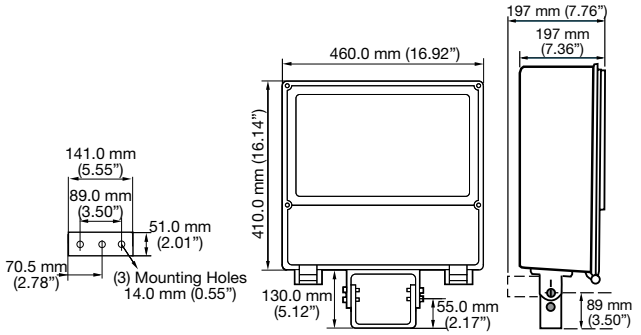
- Ballast housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Socket: heavy duty porcelain with heavy gauge brass shell
- Reflector: finished aluminum
- Yoke mount: zinc plated steel
- Bolts: stainless steel

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- Other Standards: ABNT NBR IEC 60529 (IP)



Dimensions in Millimeters (Inches)



Lamp Power(W)			Type				
Mercury Vapor	High Pressure Sodium	Metal Halide	Permissible lamps	Socket	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
–	70	–	Ovoid/Tubular	E-27	12.1 (26.7)	62.5 (3814)	**NT95033**
–	150	–	Ovoid/Tubular	E-40	12.9 (28.4)	62.5 (3814)	**NT95036**
–	250	–	Ovoid/Tubular	E-40	14.3 (31.5)	62.5 (3814)	**NT95042**
–	400	–	Ovoid/Tubular	E-40	16.0 (35.3)	62.5 (3814)	**NT95043**
–	–	150	Ovoid/Tubular	E-40	12.9 (28.4)	12.9 (28.4)	**NT95037**
–	–	250	Ovoid/Tubular	E-40	14.3 (31.5)	14.3 (31.5)	**NT95046**
–	–	400	Tubular	E-40	16.0 (35.3)	16.0 (35.3)	**NT95047**
250	–	–	Ovoid	E-40	12.9 (28.4)	62.5 (3814)	**NT95044**
400	–	–	Ovoid/Tubular	E-40	13.8 (30.4)	62.5 (3814)	**NT95045**

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Nutsteel® NT400 Series Floodlights

Weatherproof. Incandescent, Mixed

NBR IEC:
IP65

Applications

- Ideal for use in areas such as:
  - — Airports
  - — Sports fields
  - — Railroad yards
  - — Loading/unloading yards

Features

- Side levers for controlling and securing vertical movement.
- "U" bracket for mounting.
- Mounting ring secured to the body with hinges and latches with captive wing nuts.
- NPT threads standard.
- Lamp not supplied.

Standard Material

- Floodlight, housing and mounting ring: copperfree, diecast aluminum alloy
- Hinges and latches: brass
- Screws, nuts and washers: AISI 304 stainless steel
- Sealing gasket: SBR Rubber
- Spun internal reflector: anodized aluminum
- Lens: thermal shock resistant tempered glass
- Socket: reinforced porcelain

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT400U**B**3000.

NBR IEC Brazilian Certifications and Compliances

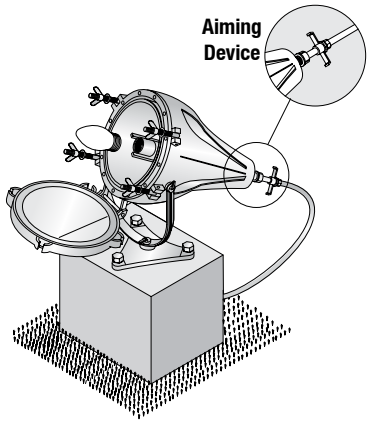
- Ingress Protection (solid and liquid): IP65
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

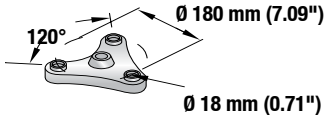
- For use with mercury vapor, sodium vapor, or metal halide lamps, we recommend the NT450 floodlight with ballast housing.



Illustrated Features



Installation on Masonry



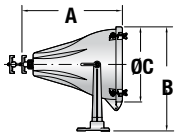
Mounting Base

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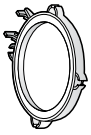
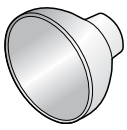
Nutsteel® NT400 Series Floodlights

Weatherproof. Incandescent, Mixed

NBR IEC:
IP65

	Lamp Type and Wattage ①			Dimension in Millimeters (Inches)			Weight	Volume	
	Incandescent	Mixed	Socket	A	B	C	kg (lb)	dm³ (in³)	Catalog Number
	300	160	E27	410 (16.14)	430 (16.93)	320 (12.60)	6.82 (15.04)	61.60 (3759.1)	**NT400UN3000**
	300	250	E40	410 (16.14)	430 (16.93)	320 (12.60)	6.82 (15.04)	61.60 (3759.1)	**NT400UN3000M01**
	500	500	E40	480 (18.90)	560 (22.05)	420 (16.54)	10.38 (22.88)	124.80 (7615.8)	**NT400UN5000**

Replacement Parts

	Description	Luminaire Type	Código
	Tempered Flat Glass	NT400UN3	**NXVPT403T**
		NT400UN5	**NXVPT405T**
	Mounting Base	NT400UN3	**NFBAS40TE**
		NT400UN5	
	Lens Assembly Ring	NT400UN3	**NFARO403T**
		NT400UN5	**NFARO405T**
	Mounting Bracket	NT400UN3	**NFSUP403T**
		NT400UN5	**NFSUP405T**
	Aluminium Reflector	NT400UN3	**NXREF403TE**
		NT400UN5	**NXREF405TE**

① *For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT400U**B**3000.*

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Nutsteel® NT410 Series Long Range Floodlights

Weatherproof

NBR IEC:
IP65

Applications

- Ideal for use in lighting areas such as:
  - — Lawns/gardens
  - — Panels
  - — Sports courts
  - — General facades
  - — Expositions
  - — Television and photography studios
  - — Parking facilities

Features

- Flaps to dissipate the heat generated by the lamp.
- Lens frame assembly secured to the body with hinges and latches with captive thumbscrew nuts.
- Box used for installation of the ballasts (available upon request).
- R7S Halogen socket with double contact base.
- High pressure sodium lamp and metal halide lamp, tubular bulb.
- Floodlight attaches to mounting base by steel bracket.
- NPT threads standard.
- Lamp not included.

Standard Material

- Housing and mounting ring: cast aluminum alloy
- Hinges and latches: brass
- Screws, nuts and washers:
- Sealing gasket: SBR Rubber
- Internal reflector: aluminum sheet
- Lens: thermal shock resistant tempered glass
- Socket: reinforced porcelain

Standard Finishes

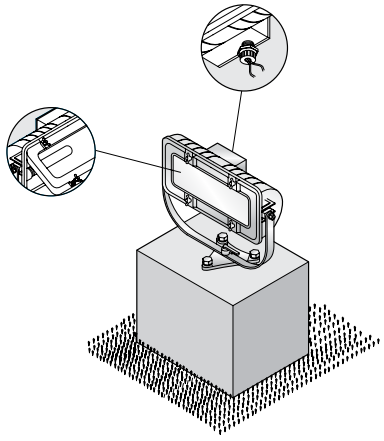
- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

NBR IEC Brazilian Certifications and Compliances

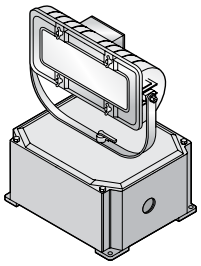
- Ingress Protection (solid and liquid): IP65
- Other Standards: ABNT NBR IEC 60529 (IP)



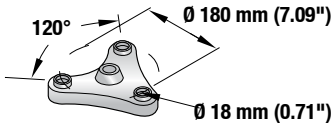
Illustrated Features



Installation on Masonry



Installation on Box with Equipment



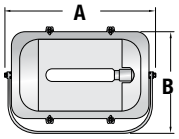
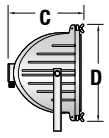
Mounting Base (Not Included)

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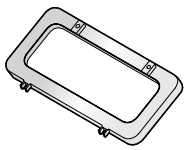
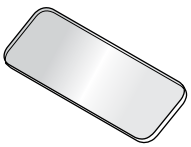
Nutsteel® NT410 Series Long Range Floodlights

Weatherproof

NBR IEC:
IP65

	Socket	Dimension in Millimeters (Inches) A	B	C	D	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
	E40	440 (17.32)	340 (13.39)	220 (8.66)	300 (11.81)	8.67 (19.11)	34.60 (2111.4)	**NT410UP1000**
	R7s	440 (17.32)	340 (13.39)	220 (8.66)	300 (11.81)	8.67 (19.11)	34.60 (2111.4)	**NT410UP1000M01**

Replacement Parts

	Description	Luminiaire Type	Catalog Number
	Lens Frame Assembly	NT410UP1000	**NFARO411T**
	Tempered Flat Glass	NT410UP1000	**NXVPT411T**
	Mounting Base	NT410UP1000	**NFBAS41T**

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A.T.X.® PC Series Floodlights

Flameproof. Metal Halide, High Pressure Sodium, Mercury Vapor, Halogen

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 or IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Ex tb IIIC Db
IP66/67

Applications

- Designed for large area lighting in industrial outdoor and indoor hazardous areas.
- Ideal for use in Zones 1 and 2 and 21 and 22 in the oil and gas industry. In locations such as: refineries, pipelines, warehouses, offshore platforms and drilling rigs.

Features

- Gray epoxy painted light marine grade aluminum housing and door.
- Fast and easy lamp replacement via threaded cover on the side of the fixture. The cover is fitted with a short safety chain.
- Lampholder of the ATEX/IEC version can be easily field-adjusted for either a narrow or wide beam.
- Fixtures operate safely in high ambient temperatures up to +55 °C (+131 °F) and in low ambient temperature up to -25 ºC (-13 °F).
- Electrical components (ballast, ignitor and capacitor) are thermally separated from the lighting compartment with an insulating protection, providing extended life.
- Easy and efficient wiring due to separate Ex e terminal box with wiring onto 2 captive terminals 2 x 6 mm^2 (2 x 0.009 in^2); 2 internal earth terminals capacity 6 mm^2 (0.009 in^2) and 1 external earth terminal capacity 4 mm^2 (0.006 in^2).
- 2 x 20 mm (2 x 0.79 in) clearance holes throughwire cable entries supplied with:
  - — One Ex e unarmored cable gland — sealing diameter 6.5 mm to 14.5 mm (0.2 in to 0.57 in)
  - — One blanking plug
  - — Two M20 locknuts
- For use with either tubular or ellipsoidal shape lamps. See ordering information for details.
- Choice of mounting with galvanized hinged bracket fixed mounting or tube/pole mounting with galvanized brackets.
- Thermoshock and impact-resistant glass factory sealed into the floodlight body.
- Operates in any position.
- Reversible hinge allows for fixture access from either side.
- Internal symmetric reflector.

Standard Materials

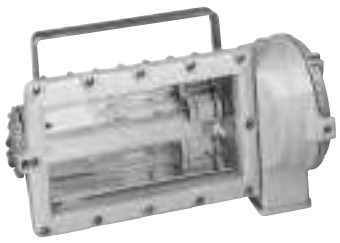
- Housing and door: copperfree marine-grade aluminum alloy
- Lens: toughened safety glass
- Reflector: bright highly polished aluminum
- Bolts: stainless steel bolt
- Cable gland and blanking plug: polyamide
- Locknut: nickel plated brass

Standard Finishes

- Housing and door: gray epoxy powder paint

ATEX/IEC Options

- Other voltages, please contact your sales representative.
- Terminal block with 2 more terminals for wiring with 3 phases plus Neutral in 380/415 V (loop in/loop out wiring possible): add suffix -**T** at the end of the catalog number.
- Asymmetrical light distribution is available, add suffix -**A** to end of catalog number.
- Screwed-on overhead diffuser out of galvanized steel with black painting (see accessories).
- Screwed-on zinc-coated protection guard (see accessories).





ATEX/IEC Certifications and Compliances

- Certification Type: PJd
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex de IIC
    - – T Rating: See *T Rating (Gas) and Surface Temperature (Dust) Table*
  - — Dust: Zone 21 - 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: See *T Rating (Gas) and Surface Temperature (Dust) Table*
- Ambient Temperature: standard fixture: -20 °C ≤ to ≤ +55 °C (-4 °F ≤ to ≤ +131 °F); with asymmetrical optic "C": -25 °C (-13 °F)
- CE Declaration of Conformity: 50207
- ATEX Certificate: LCIE 99/ ATEX 6002
- IECEx Certificate: IECEx LCI 04.0020
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66/67
- Impact Resistance (shock): IK10
- Ex Standards EN/IEC 60079-0; 60079-1; 60079-7; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1
- EMC Standards: EN/IEC 55015; 61547
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: PJd
  - — Gas: Zone 1 and 2
    - – IEC Marking: Ex de IIC Gb
  - — Dust: Zone 21 - 22
    - – IEC Marking: Ex tb IIIC Db
- Ambient temperature: -25 °C to +55 °C (-13 °F to +131 °F)
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 12.2098
- Ingress Protection: IP66/67
- Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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A.T.X.® PC Series Floodlights

Flameproof. Metal Halide, High Pressure Sodium, Mercury Vapor, Halogen

ATEX/IECEx:
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Ⓔx II 2 GD
IP66 or IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Ex tb IIIC Db
IP66/67

Order using catalog numbering guide below or select catalog number from the following pages.

Catalog Numbering Guide — PC Series Floodlights

PCA — Series:
PCA - PC Series
Zone 1, 2, 21, 22
ATEX/IEC Certified

N PCA - PC Series
Zone 1, 2, 21, 22
NBR IEC Certified

H — Lamp Type:
H - Metal Halide
L - High Pressure Sodium
M - Mercury Vapor
Z - Halogen

15 — Lamp Wattage:
15 - 150 W
25 - 250 W
40 - 400 W
50 - 500 or 1000 W Halogen
60 - 600 W

XJ — Voltage:
XJ - 230/240 Vac, 50 Hz (Magnetic Ballast) ②
XN - 220 Vac 60 Hz (Magnetic Ballast) ③

B — Bracket:
B - Hinged Bracket Included

T — Options:
T - Extra Terminals ①
A - Asymmetrical Optic C -25 °C (-13 °F) Ambient Temperature ②

T Rating (Gas) and Surface Temperature (Dust) Table

Lamp Type and Wattage	Gas Temperature Rating According to Ta			Dust
	+40 °C (+104°F)	+50 °C (+122°F)	+55 °C (+131°F)	Surface Temperature °C (°F)
2 x 70 W - H3	**T4**	**T4**	**T4**	+130 (+266)
150 W High Pressure Sodium	**T4**	**T3**	**T3**	+145 (+293)
250 W High Pressure Sodium	**T3**	**T3**	**T3**	+195 (+383)
250 W Metal Halide	**T3**	**T3**	**T3**	+197 (+387)
250 W Mercury Vapor	**T3**	**T3**	**T3**	+194 (+381)
400 W High Pressure Sodium	**T3**	**T3**	**T3**	+189 (+372)
400 W Metal Halide	**T3**	**T3**	**T3**	+193 (+379)
400 W Mercury Vapor	**T3**	**T3**	**T3**	+195 (+383)
600 W High Pressure Sodium	**T2**	**T2**	**T2**	+257 (+495)
500 W Halogen	**T2**	**T2**	**T2**	+267 (+513)
1000 W Halogen	**T1**	**T1**	**T1**	+378 (+712)

① 3 Phase + Neutral. Not certified for use in NBR IEC governed locations.
② Certified for use in ATEX/IEC governed locations only. Not certified for use in NBR IEC governed locations.
③ Certified for use in NBR IEC governed locations only. Not certified for use in ATEX/IEC governed locations.

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Flameproof. Metal Halide, High Pressure Sodium, Mercury Vapor, Halogen

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 or IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC Gb
Ex tb IIIC Db
IP66/67

	Lamp Wattages	Lampholder	Voltage (+/–10%)	Lamp Type Ellipsoidal	Lamp Type Tubular	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx ①②	Catalog Number NBR IEC
	High Pressure Sodium								
	150	E40	230/240 V, 50 Hz	x	x	29.0 (64)	104.4 (6374)	**PCAL15XJB**	—
	150	E40	220 Vac, 60 Hz	x	x	29.0 (64)	104.4 (6374)	—	**NPCAL15XNB**
	250	E40	230/240 V, 50 Hz	x	x	30.0 (66)	104.4 (6374)	**PCAL25XJB**	—
	250	E40	220 Vac, 60 Hz	x	x	30.0 (66)	104.4 (6374)	—	**NPCAL25XNB**
	400	E40	230/240 V, 50 Hz	—	x	32.0 (71)	104.4 (6374)	**PCAL40XJB**	—
	400	E40	220 Vac, 60 Hz	—	x	32.0 (71)	104.4 (6374)	—	**NPCAL40XNB**
	600	E40	230/240 V, 50 Hz	—	x	35.0 (77)	104.4 (6374)	**PCAL60XJB**	—
	600	E40	220 Vac, 60 Hz	—	x	35.0 (77)	104.4 (6374)	—	**NPCAL60XNB**
	**Mercury Vapor**								
	250	E40	230/240 V, 50 Hz	x	x	30.0 (66)	104.4 (6374)	**PCAM25XJB**	—
	250	E40	220 Vac, 60 Hz	x	x	30.0 (66)	104.4 (6374)	—	**NPCAM25XNB**
	400	E40	230/240 V, 50 Hz	—	x	30.5 (67)	104.4 (6374)	**PCAM40XJB**	—
	400	E40	220 Vac, 60 Hz	—	x	30.5 (67)	104.4 (6374)	—	**NPCAM40XNB**
	Metal Halide								
	250	E40	230/240 V, 50 Hz	x	x	30.0 (66)	104.4 (6374)	**PCAH25XJB**	—
	250	E40	220 Vac, 60 Hz	x	x	30.0 (66)	104.4 (6374)	—	**NPCAH25XNB**
	400	E40	230/240 V, 50 Hz	—	x	32.0 (71)	104.4 (6374)	**PCAH40XJB**	—
	400	E40	220 Vac, 60 Hz	—	x	32.0 (71)	104.4 (6374)	—	**NPCAH40XNB**
	Halogen								
	500/1000	E40	—	—	x	27.0 (60)	104.4 (6374)	**PCAZ50B**	**NPCAZ50B**

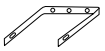
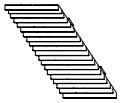
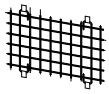
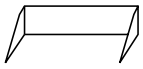
Note : Floodlights supplied with hinged mounting bracket, 1 plug, 1 M20 cable gland — 6.5 mm to 14.5 mm (0.26 in to 0.57 in) diameter. Lamps are not included.
*① Terminal block with 2 more terminals for wiring with 3 phases plus Neutral in 380/415 V: add suffix -**T** at the end of the catalog number. Certified for use in ATEX/IEC governed locations only. Not certified for use in NBR IEC governed locations.*
*② Asymmetrical light distribution is available, add suffix -**A** to end of catalog number. Certified for use in ATEX/IEC governed locations only. Not certified for use in NBR IEC governed locations.*

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A.T.X.® PC Series Floodlights

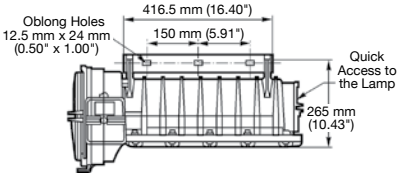
Flameproof. Metal Halide, High Pressure Sodium, Mercury Vapor, Halogen

Accessories

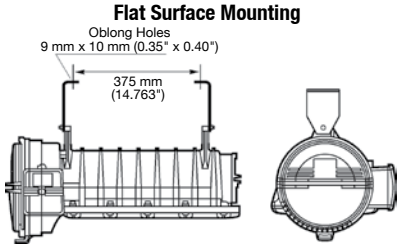
			Catalog Number IECEx	Catalog Number NBR IEC
Standard Galvanized Steel Hinged Mounting Bracket Replacement Part				
			**PCHBG**	**NPCHBG**
Optional Galvanized Steel Mounting Brackets				
 **Pole/Tube**	 **Flat Surface**	Pole/Tube Mounting — 1-1/4" to 1-1/2"	**PCHC49G**	**NPCHC49G**
		Pole/Tube Mounting — 2"	**PCHC60G**	**NPCHC60G**
		Flat Surface Mounting	**PCSBG**	**NPCSBG**
400 W Mercury Vapor Lamp				
			LM400E40	—
Screwed-on Overhead Diffuser				
			**PCGDG**	—
Screwed-on Protective Guard				
			**PCPGZ**	—
Visor — Secured With 2 Screws				
			**PCVG**	—

Dimensions in Millimeters (Inches)

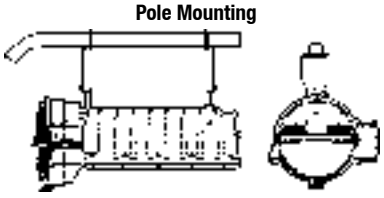
Hinged Bracket Mounting



Flat Surface Mounting



Pole Mounting



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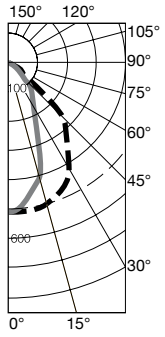
Photometrics

Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

Longitudinal
Transverse

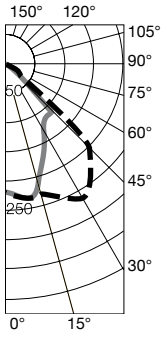
Narrow beam Metal Halide 250 W
Efficiency 68.3%
NF C 71–121: 0.68B

CANDELA DISTRIBUTION		
	0–180	90–270
0	505	505
5	515	499
10	512	469
15	501	403
20	476	312
25	453	248
30	427	190
35	394	146
40	368	117
45	290	97
50	160	12
55	51	7
60	34	4
65	15	4
70	6	4



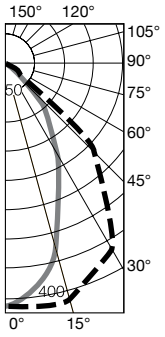
Narrow beam Metal Halide 400 W ①
Efficiency 49.3%
NF C 71–121: 0.49C

CANDELA DISTRIBUTION		
	0–180	90–270
0	217	217
5	210	219
10	218	231
15	223	205
20	238	193
25	255	148
30	266	132
35	263	130
40	244	116
45	201	104
50	136	37
55	85	15
60	51	8
65	28	6
70	5	4



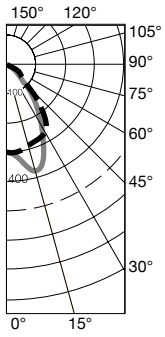
Narrow beam Halogen 1000 W
Efficiency 59.2%
NF C 71–121: 0.59B

CANDELA DISTRIBUTION		
	0–180	90–270
0	417	417
5	406	418
10	419	399
15	419	330
20	408	266
25	398	218
30	371	177
35	344	142
40	295	115
45	213	98
50	135	12
55	68	7
60	34	4
65	16	3
70	5	3



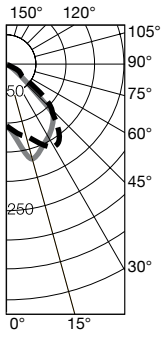
Wide beam Metal Halide 250 W
Efficiency 67.9%
NF C 71–121: 0.68C

CANDELA DISTRIBUTION		
	0–180	90–270
0	301	301
5	303	318
10	299	342
15	294	387
20	287	382
25	286	306
30	271	237
35	231	208
40	172	186
45	133	140
50	83	104
55	48	18
60	34	8
65	23	6
70	6	6



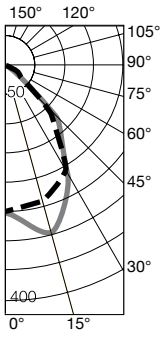
Wide beam Metal Halide 400 W ①
Efficiency 46.7%
NF C 71–121: 0.46C

CANDELA DISTRIBUTION		
	0–180	90–270
0	105	105
5	104	106
10	108	130
15	124	165
20	148	177
25	167	183
30	165	147
35	142	127
40	116	113
45	74	115
50	52	103
55	48	40
60	44	13
65	34	9
70	18	6



Wide beam Halogen 1000 W
Efficiency 57.7%
NF C 71–121: 0.57C

CANDELA DISTRIBUTION		
	0–180	90–270
0	251	251
5	244	255
10	247	272
15	245	293
20	237	306
25	229	262
30	213	213
35	194	188
40	163	161
45	120	133
50	82	105
55	52	18
60	35	8
65	20	5
70	8	5



① 400 W Metal Halide: Efficiency rate lower than 250 W due to thermal deflector between glass and lamp, requested for T3.

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Nutsteel® NE450 Series Floodlights

Explosionproof. Mercury Vapor, High Pressure Sodium, Metal Halide

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB Gb
Ex tb IIIC Db
IP65

Applications

- Typical applications include:
  - — Processing plants
  - — Chemical plants
  - — Oil refineries
  - — Foundries
  - — Paint and varnish facilities
  - — Flammable material storage facilities

Features

- Side levers for controlling and securing vertical movement.
- Allows lateral movement up to 180°.
- Comes assembled with high-power factor ballast, terminal strip for cable entry and exit for internal connection and circuit-protection fuses, and sealed with two explosionproof cable glands.
- Entry of the electrical conductors in the housing should be done with conduit, or explosionproof cable glands.
- To assure the appropriate level of safety, preventing the propagation of the explosion, we recommend securing the housing cover and the floodlight ring with all of the screws and with the specified torque.
- NPT threads standard.
- Lamp not supplied.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.

Standard Material

- Floodlight, housing and ring: copperfree, cast aluminum alloy
- Internal reflector: anodized aluminum
- Lens: thermal shock-resistant tempered glass
- Socket: reinforced anti-vibration porcelain
- Screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

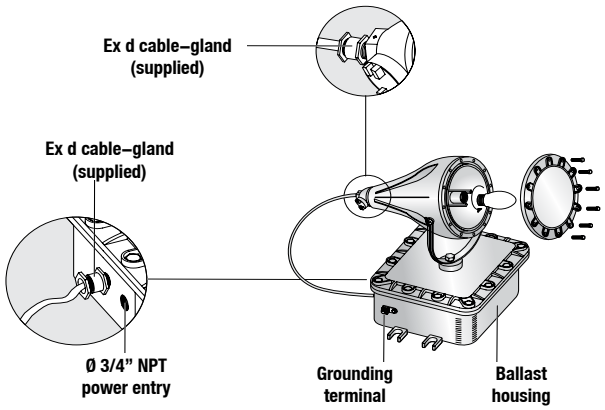
- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NE450U**B**3H08.

NBR IEC Brazilian Certifications and Compliances

- Ambient Temperature: -5 °C up to +40 °C (+23 °F up to +104 °F)
- INMETRO Certificate: BVC 11.0461-X
- Ingress Protection (solid and liquid): IP65
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)



Installation and Maintenance



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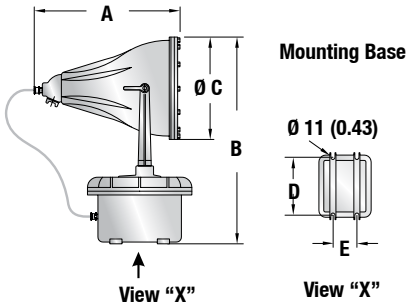
Nutsteel® NE450 Series Floodlights

Explosionproof. Mercury Vapor, High Pressure Sodium, Metal Halide

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB Gb
Ex tb IIIC Db
IP65

Lamp Type and Wattage				Dimensions mm (in)					Screws						
									Projector		Ballast Housing				
Mercury Vapor	High Pressure Sodium	Metal Halide	Socket	A	B	C	D	E	Torque (kgf.m)	Hexagonn Bolt	Torque (kgf.m)	Hexagonn Bolt	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
80	—	—	E27	430 (16.93)	640 (25.20)	330 (12.99)	340 (13.39)	140 (5.51)	1.25	1/2”	0.50	7/16”	25.40 (56.00)	87.20 (5321.3)	**NE450UN3H08**
125	—	—	E27	430 (16.93)	640 (25.20)	330 (12.99)	340 (13.39)	140 (5.51)	1.25	1/2”	0.50	7/16”	25.40 (56.00)	87.20 (5321.3)	**NE450UN3H12**
—	70	—	E27	430 (16.93)	640 (25.20)	330 (12.99)	340 (13.39)	140 (5.51)	1.25	1/2”	0.50	7/16”	25.40 (56.00)	87.20 (5321.3)	**NE450UN3S07**
—	—	70	E27	430 (16.93)	640 (25.20)	330 (12.99)	340 (13.39)	140 (5.51)	1.25	1/2”	0.50	7/16”	25.40 (56.00)	87.20 (5321.3)	**NE450UN3M07**
—	—	150	E27	430 (16.93)	640 (25.20)	330 (12.99)	340 (13.39)	140 (5.51)	1.25	1/2”	0.50	7/16”	26.30 (57.98)	87.20 (5321.3)	**NE450UN3M15**
—	150	—	E40	570 (22.44)	730 (28.74)	430 (16.93)	340 (13.39)	260 (10.24)	1.25	1/2”	1.50	9/16”	37.20 (82.01)	160.85 (9815.7)	**NE450UN5S15**
250	—	—	E40	570 (22.44)	730 (28.74)	430 (16.93)	340 (13.39)	260 (10.24)	1.25	1/2”	1.50	9/16”	37.20 (82.01)	160.85 (9815.7)	**NE450UN5H25**
—	250	—	E40	570 (22.44)	730 (28.74)	430 (16.93)	340 (13.39)	260 (10.24)	1.25	1/2”	1.50	9/16”	38.50 (84.88)	160.85 (9815.7)	**NE450UN5S25**
—	—	250	E40	570 (22.44)	730 (28.74)	430 (16.93)	340 (13.39)	260 (10.24)	1.25	1/2”	1.50	9/16”	38.50 (84.88)	160.85 (9815.7)	**NE450UN5M25**
400	—	—	E40	570 (22.44)	730 (28.74)	430 (16.93)	340 (13.39)	260 (10.24)	1.25	1/2”	1.50	9/16”	37.20 (82.01)	160.85 (9815.7)	**NE450UN5H40**
—	400	—	E40	570 (22.44)	730 (28.74)	430 (16.93)	340 (13.39)	260 (10.24)	1.25	1/2”	1.50	9/16”	38.50 (84.88)	160.85 (9815.7)	**NE450UN5S40**
—	—	400	E40	570 (22.44)	730 (28.74)	430 (16.93)	340 (13.39)	260 (10.24)	1.25	1/2”	1.50	9/16”	38.50 (84.88)	160.85 (9815.7)	**NE450UN5M40**

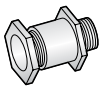
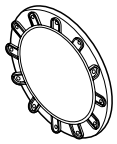
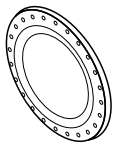
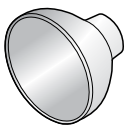
Dimensions in Millimeters (Inches)



① *For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NE450U**B**3H08.*

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Accessories and Replacement Parts

	Description	Luminaire – Type	Catalog Number
	Tempered flat glass	NE450UN3	**NXVPT403E**
		NE450UN5	**NXVPT405E**
	Ex d Cable Gland	NE450UN3	**N20A2F0755**
		NE450UN5	
	External ring	NE450UN3	**NFANE1403E**
		NE450UN5	**NFANE1405E**
	Internal ring	NE450UN3	**NFANE2403E**
		NE450UN5	**NFANE2405E**
	Mounting bracket	NE450UN3	**NFSUP403TE**
		NE450UN5	**NFSUP405TE**
	Aluminium reflector	NE450UN3	**NXREF403TE**
		NE450UN5	**NXREF405TE**

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Nutsteel® NE450 Series Floodlights

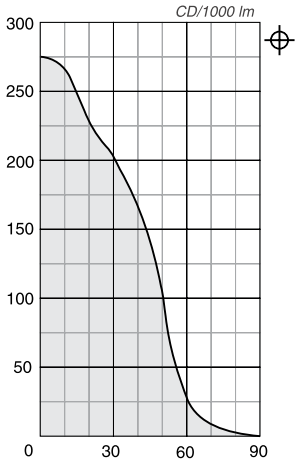
Explosionproof. Mercury Vapor, High Pressure Sodium, Metal Halide

Photometric Data

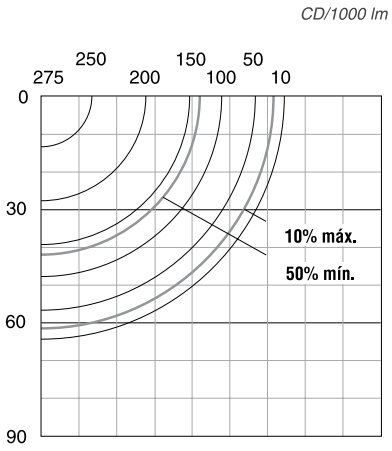
- **NE450**
- **150W ellipsoid opaline sodium vapor lamp**
- **Total luminous flux = 14,000 lm**

Cartesian Curves

Angle	0–90
0	275
5	272
10	266
15	250
20	227
25	204
30	200
35	179
40	159
45	140
50	108
55	75
60	52
65	29
70	7
75	3
80	1
85	0



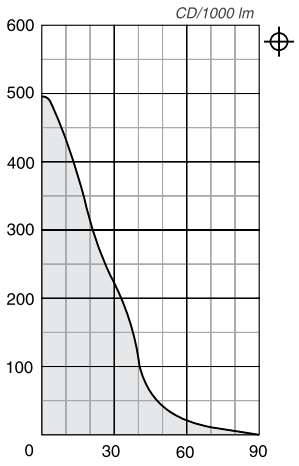
Isocandela Curves



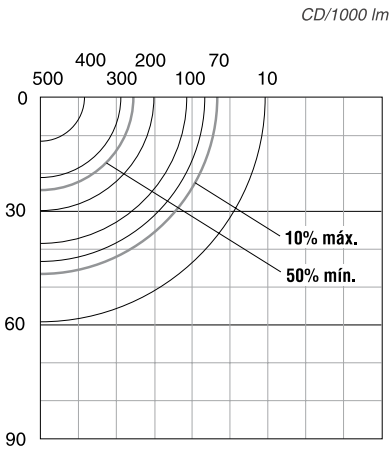
- **NE450**
- **400W ellipsoid opaline sodium vapor lamp**
- **Total luminous flux = 47,000 lm**

Cartesian Curves

Angle	0–90
0	500
5	466
10	429
15	377
20	329
25	280
30	222
35	162
40	111
45	75
50	49
55	22
60	11
65	5
70	3
75	2
80	2
85	0



Isocandela Curves



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Nutsteel® NE450 Series Floodlights

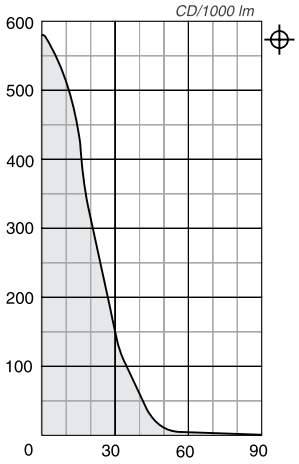
Explosionproof. Mercury Vapor, High Pressure Sodium, Metal Halide

Photometric Data

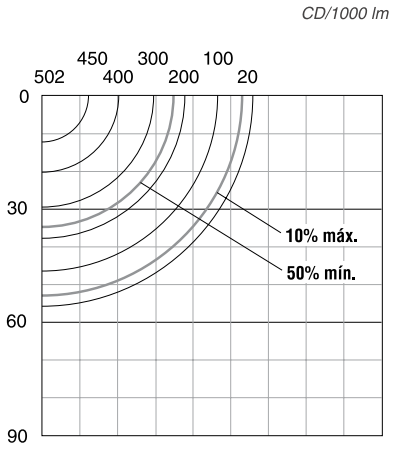
- **NE450**
- **400W Mercury vapor lamp**
- **Total luminous flux = 22,000 lm**

Cartesian Curves

Angle	0–90
0	502
5	499
10	471
15	447
20	400
25	375
30	325
35	283
40	230
45	160
50	103
55	51
60	20
65	8
70	5
75	3
80	2
85	0



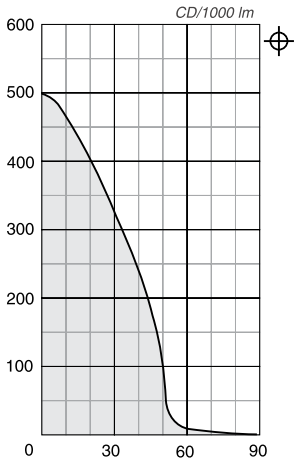
Isocandela Curves



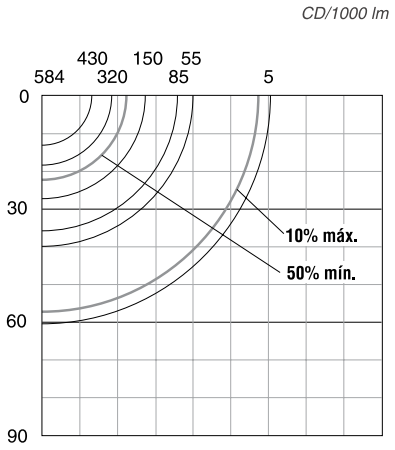
- **NE450**
- **250W ellipsoid opaline metal halide lamp**
- **Total luminous flux = 19,000 lm**

Cartesian Curves

Angle	0–90
0	584
5	568
10	513
15	419
20	318
25	231
30	146
35	100
40	68
45	53
50	36
55	9
60	4
65	4
70	4
75	2
80	2
85	0



Isocandela Curves



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Nutsteel® NE400 Series Floodlights

Explosionproof. Incandescent, Mixed

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB Gb
Ex tb IIIC Db
IP65

Applications

- Typical applications include:
  - — Processing plants
  - — Chemical plants
  - — Oil refineries
  - — Foundries
  - — Paint and varnish facilities
  - — Flammable material storage facilities

Features

- Side levers for controlling and securing vertical movement.
- Socket is impact-resistant.
- To assure the appropriate level of safety, preventing the propagation of the explosion, we recommend securing the housing cover and the floodlight ring with all of the screws and with the specified torque.
- NPT threads standard.
- Lamp not supplied.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.

Standard Material

- Floodlight, housing and ring: copperfree, cast aluminum alloy
- Internal reflector: anodized aluminum
- Lens: thermal shock-resistant tempered glass
- Socket: reinforced anti-vibration porcelain
- Screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NE400U**B**3000.

NBR IEC Brazilian Certifications and Compliances

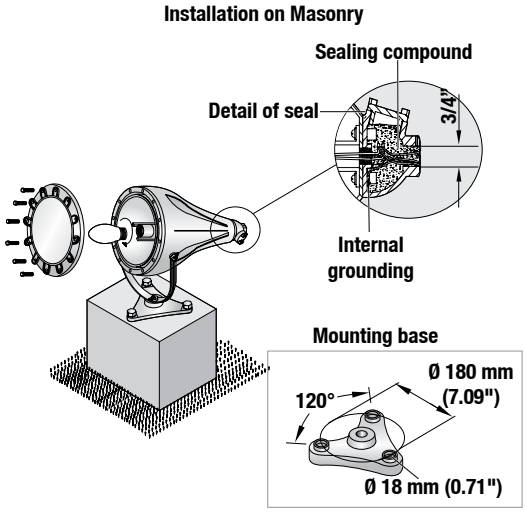
- Operating Temperature: -5 °C up to +40 °C (+23 °F up to +104 °F)
- Ingress Protection (solid and liquid): IP65
- INMETRO Certificate: BVC 11.0461-X
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- For use with mercury vapor, sodium vapor, or metal halide lamps, we recommend the NE450 Series with ballast housing.



Installation and Maintenance

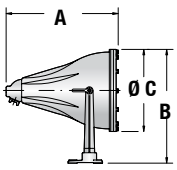


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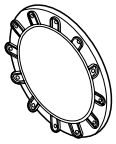
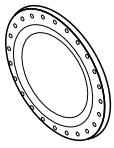
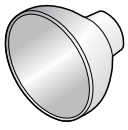
Nutsteel® NE400 Series Floodlights

Explosionproof. Incandescent, Mixed

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB Gb
Ex tb IIIC Db
IP65

	Lamp Type and Wattage			Dimensions mm (in)			Screws				
	Incandescent	Mixed	Socket	A	B	C	Torque (kgf.m)	Hex Head	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
	300	160	E27	430 (16.93)	430 (16.93)	330 (12.99)	1.25	1/2”	12.37 (27.27)	61.60 (3759.1)	**NE400UN3000**
	300	250	E40	430 (16.93)	430 (16.93)	330 (12.99)	1.25	1/2”	12.37 (27.27)	61.60 (3759.1)	**NE400UN3000M01**
	500	500	E40	570 (22.44)	520 (20.47)	430 (16.93)	1.25	1/2”	15.42 (34.00)	124.80 (7615.8)	**NE400UN5000**

Accessories and Replacement Parts

	Description	Luminaire – Type	Catalog Number
	Tempered flat glass	NE400UN3	**NXVPT403E**
		NE400UN5	**NXVPT405E**
	Mounting base	NE400UN3	**NFBAS40TE**
		NE400UN5	**NFBAS40TE**
	External ring	NE400UN3	**NFANE1403E**
		NE400UN5	**FNANE1405E**
	Internal ring	NE400UN3	**NFANE2403E**
		NE400UN5	**NFANE2405E**
	Mounting bracket	NE400UN3	**NFSUP403TE**
		NE400UN5	**NFSUP405TE**
	Aluminium reflector	NE400UN3	**NXREF403TE**
		NE400UN5	**NXREF405TE**

① *For BSP thread, replace with the letter **N** with the letter **B** in the 7th position, Example: NE400U**B**3000.*

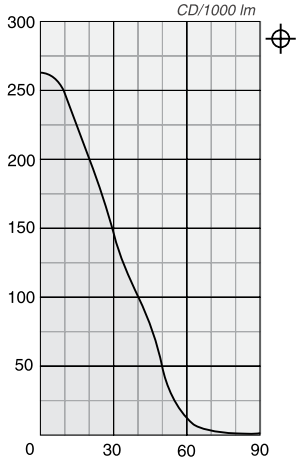
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Photometric Data

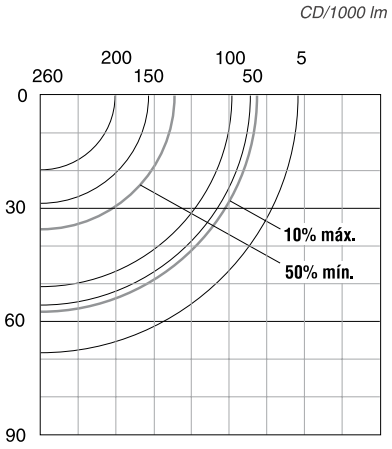
- **NE400**
- **160W mixed lamp ①**
- **Total luminous flux = 3.100 lm**

Cartesian Curves

Angle	0–90
0	260
5	252
10	246
15	225
20	203
25	171
30	145
35	128
40	105
45	73
50	44
55	26
60	13
65	7
70	4
75	2
80	1
85	0



Isocandela Curves



① *For other photometric curves see NE450. Series.*

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Nutsteel® NT850–N Series Luminaires

Industrial. Weatherproof. Watertight. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
IP66

Applications

- Suitable for use in environments containing moisture, non-flammable gases and vapors.
- Areas of low clearance, with low ceilings or areas in which the weight of the luminaire should be minimal.
- Typical applications include:
  - — Engine room lighting
  - — Industrial kitchens
  - — Washing boxes
  - — Electroplating facilities
  - — Refrigeration facilities
  - — Docks
  - — Walkways
  - — Bridges
  - — Tunnels
  - — Parking lots



Pendant Mount



Optional NEREA Reflector

Features

- Compact, light weight, low profile design is suited for low mounting heights.
- Manufactured in six models:
  - — Ceiling, 30° wall and 90° wall mounts have four threaded entries.
  - — Pendant, 30° stanchion and 90° stanchion have one threaded entry.
- Standard voltage: 220 V, 60 Hz; optional voltage 230/240 V, 50 Hz.
- Impact and thermal shock-resistant globe threads directly into ballast housing.
- Ballast with high power factor > 0.92.
- Supplied with ballast mounted.
- Supplied with guard.
- NPT threads standard. BSP and metric threads available.
- Optional NEREA reflector is lightweight, durable and corrosion-resistant.
- Lamp not supplied.
- All entries must be sealed with threaded cable glands or sealing unit to prevent the passage of gases.

Standard Material

- Body and guard: copperfree cast aluminum alloy
- Globe: impact and thermal shock-resistant threaded glass
- Socket: strengthened porcelain
- Gasket: silicone
- Screws and washers: external fixation of AISI 304 stainless steel
- NEREA reflector: anodized aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT850A**B**3H25N.
- For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT850A**M**3H25N.
- For optional reflector, add the letter **E** for a size 2 reflector or **F** for a size 3 reflector to the end of the catalog number; example: NT850AN3H25N**F**.
- For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NT850AN3H25NF**A**.
- For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NT850AN3H25NFA**1**.
- For 230/240 V, 50 Hz ballast, add suffix **-235**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- Other Standards: ABNT NBR IEC 60529 (IP)

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Nutsteel® NT850–N Series Luminaires

Industrial. Weatherproof. Watertight. High Pressure Sodium, Mercury Vapor, Metal Halide

NBR IEC:
IP66

Order using catalog numbering guide below or select catalog number from tables below and on following pages.

Catalog Numbering Guide

NT850	A	N	2	H	08	N	E	A	1	235
Series: NT850 - NT850N Series NBR IEC Certified	Mounting: A - Pendant B - Ceiling C - 30° Wall E - 90° Wall F - 30° Stanchion H - 90° Stanchion	Thread: N - NPT B - BSP M - Metric	Luminaire Size: 2 - Size 2 3 - Size 3	Lamp Type: H - Mercury Vapor M - Metal Halide S - High Pressure Sodium E27 - E27 Socket ① E40 - E40 Socket ①	Wattage: 07 - 70 W 08 - 80 W 12 - 125 W 15 - 150 W 25 - 250 W	N - New Generation	Optional Reflector Type: E - For size 2 F - For size 3	Optional Reflector Material: A- Aluminum F - Porcelain Steel	Optional Reflector Sizes: 1 - Shallow 2 - Standard 3 - Deep 4 - Angle	Voltage Option: Blank - 220 V, 60 Hz 235 - 230/240 V, 50 Hz ②

① Fixture supplied without ballast.
*② For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 125 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NT850AN2H12N235** and standard reflector catalog number **NEREA204**.*

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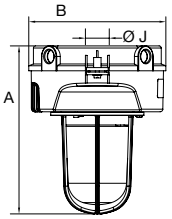
Nutsteel® NT850–N Series Luminaires

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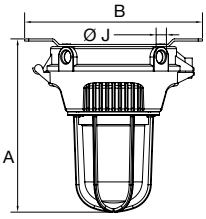
NBR IEC:
IP66

	Lamp Type and Wattage				Threaded Entries	Dimensions mm (in)				
	Mercury Vapor	HPS	Metal Halide	Socket	Ø J ②	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ③④⑤⑥
Pendant										
	80	—	—	E27	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NT850AN2H08N**
	125	—	—	E27	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NT850AN2H12N**
	—	—	70	E27	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NT850AN2M07N**
	—	—	150	E27	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NT850AN2M15N**
	—	70	—	E27	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NT850AN2S07N**
	125	70	70	E27	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NT850AN2E27N** ①
	250	—	—	E40	3/4"	372 (14.65)	330 (12.99)	11.09 (24.45)	45.40 (2770.48)	**NT850AN3H25N**
	—	—	250	E40	3/4"	372 (14.65)	330 (12.99)	12.00 (26.45)	45.40 (2770.48)	**NT850AN3M25N**
	—	100	—	E40	3/4"	372 (14.65)	330 (12.99)	10.01 (22.07)	45.40 (2770.48)	**NT850AN3S10N**
	—	150	—	E40	3/4"	372 (14.65)	330 (12.99)	11.24 (26.99)	45.40 (2770.48)	**NT850AN3S15N**
	—	250	—	E40	3/4"	372 (14.65)	330 (12.99)	12.00 (26.45)	45.40 (2770.48)	**NT850AN3S25N**
	250	150	250	E40	3/4"	372 (14.65)	330 (12.99)	11.09 (24.45)	45.40 (2770.48)	**NT850AN3E40N** ①
Ceiling										
	80	—	—	E27	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NT850BN2H08N**
	125	—	—	E27	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NT850BN2H12N**
	—	—	70	E27	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NT850BN2M07N**
	—	—	150	E27	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NT850BN2M15N**
	—	70	—	E27	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NT850BN2S07N**
	125	70	70	E27	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NT850BN2E27N** ①
	250	—	—	E40	3/4"	390 (15.35)	420 (16.54)	11.09 (24.45)	45.40 (2770.48)	**NT850BN3H25N**
	—	—	250	E40	3/4"	390 (15.35)	420 (16.54)	12.00 (26.45)	45.40 (2770.48)	**NT850BN3M25N**
	—	100	—	E40	3/4"	390 (15.35)	420 (16.54)	10.01 (22.07)	45.40 (2770.48)	**NT850BN3S10N**
	—	150	—	E40	3/4"	390 (15.35)	420 (16.54)	11.24 (26.99)	45.40 (2770.48)	**NT850BN3S15N**
	—	250	—	E40	3/4"	390 (15.35)	420 (16.54)	12.00 (26.45)	45.40 (2770.48)	**NT850BN3S25N**
	250	150	250	E40	3/4"	390 (15.35)	420 (16.54)	11.09 (24.45)	45.40 (2770.48)	**NT850BN3E40N** ①

NT850A–N



NT850B–N



① *Fixture supplied without ballast.*
② *The 3/4" threaded entries can be replaced by M25; and the 1-1/2" can be replaced by M50. Contact your local sales representative for details.*
③ *For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT850A**B**3H25N.*
④ *For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT850A**M**3H25N.*
⑤ *For optional reflector, add the letter **E** for a size 2 reflector or **F** for a size 3 reflector to the end of the catalog number; example: NT850AN3H25N**F**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NT850AN3H25NF**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NT850AN3H25NFA**1**.*
⑥ *For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 125 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NT850AN2H12N235** and standard reflector catalog number **NEREA204**.*

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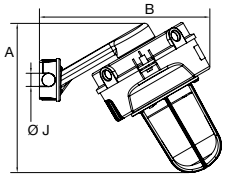
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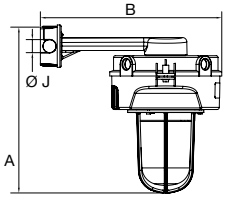
NBR IEC:
IP66

	Lamp Type and Wattage				Threaded Entries Ø J ②	Dimensions mm (in)		Weight kg (lb)	Volume dm³ (in³)	Catalog Number ③④⑤⑥
	Mercury Vapor	HPS	Metal Halide	Socket		A	B			
30° Wall										
	80	—	—	E27	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NT850CN2H08N**
	125	—	—	E27	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NT850CN2H12N**
	—	—	70	E27	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NT850CN2M07N**
	—	—	150	E27	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NT850CN2M15N**
	—	70	—	E27	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NT850CN2S07N**
	125	70	70	E27	3/4"	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NT850CN2E27N** ①
	250	—	—	E40	3/4"	397 (15.63)	456 (17.95)	12.72 (28.04)	48.31 (2948.06)	**NT850CN3H25N**
	—	—	250	E40	3/4"	397 (15.63)	456 (17.95)	13.63 (30.05)	48.31 (2948.06)	**NT850CN3M25N**
	—	100	—	E40	3/4"	397 (15.63)	456 (17.95)	11.64 (25.66)	48.31 (2948.06)	**NT850CN3S10N**
	—	150	—	E40	3/4"	397 (15.63)	456 (17.95)	12.87 (28.37)	48.31 (2948.06)	**NT850CN3S15N**
	—	250	—	E40	3/4"	397 (15.63)	456 (17.95)	13.63 (30.05)	48.31 (2948.06)	**NT850CN3S25N**
	250	150	250	E40	3/4"	397 (15.63)	456 (17.95)	12.72 (28.04)	48.31 (2948.06)	**NT850CN3E40N** ①
90° Wall										
	80	—	—	E27	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NT850EN2H08N**
	125	—	—	E27	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NT850EN2H12N**
	—	—	70	E27	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NT850EN2M07N**
	—	—	150	E27	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NT850EN2M15N**
	—	70	—	E27	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NT850EN2S07N**
	125	70	70	E27	3/4"	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NT850EN2E27N** ①
	250	—	—	E40	3/4"	444 (17.48)	455 (17.91)	11.05 (24.36)	48.69 (2971.25)	**NT850EN3H25N**
	—	—	250	E40	3/4"	444 (17.48)	455 (17.91)	13.73 (30.27)	48.69 (2971.25)	**NT850EN3M25N**
	—	100	—	E40	3/4"	444 (17.48)	455 (17.91)	11.74 (25.88)	48.69 (2971.25)	**NT850EN3S10N**
	—	150	—	E40	3/4"	444 (17.48)	455 (17.91)	12.97 (28.59)	48.69 (2971.25)	**NT850EN3S15N**
	—	250	—	E40	3/4"	444 (17.48)	455 (17.91)	13.73 (30.27)	48.69 (2971.25)	**NT850EN3S25N**
	250	150	250	E40	3/4"	444 (17.48)	455 (17.91)	12.72 (28.04)	48.69 (2971.25)	**NT850EN3E40N** ①

NT850C–N



NT850E–N



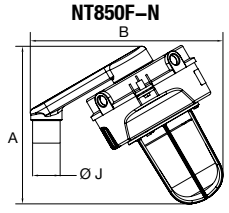
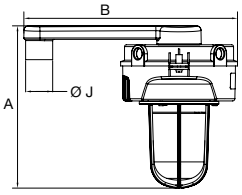
① *Fixture supplied without ballast.*
② *The 3/4" threaded entries can be replaced by M25; and the 1-1/2" can be replaced by M50. Contact your local sales representative for details.*
③ *For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT850A**B**3H25N.*
④ *For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT850A**M**3H25N.*
⑤ *For optional reflector, add the letter **E** for a size 2 reflector or **F** for a size 3 reflector to the end of the catalog number; example: NT850AN3H25N**F**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NT850AN3H25NF**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NT850AN3H25NFA**1**.*
⑥ *For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 125 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NT850AN2H12N235** and standard reflector catalog number **NEREA204**.*

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Nutsteel® NT850–N Series Luminaires

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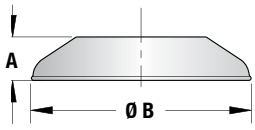
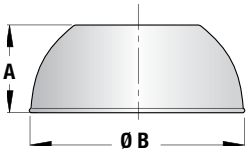
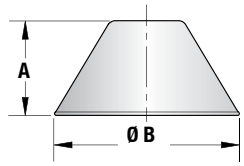
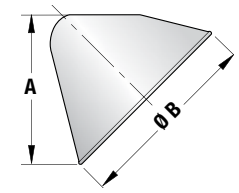
NBR IEC:
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	Lamp Type and Wattage				Threaded Entries	Dimensions mm (in)				
	Mercury Vapor	HPS	Metal Halide	Socket	Ø J ②	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ③④⑤⑥
30° Stanchion										
	80	—	—	E27	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NT850FN2H08N**
	125	—	—	E27	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NT850FN2H12N**
	—	—	70	E27	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NT850FN2M07N**
	—	—	150	E27	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NT850FN2M15N**
NT850F–N 	—	70	—	E27	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NT850FN2S07N**
	125	70	70	E27	1-1/2"	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NT850FN2E27N** ①
	250	—	—	E40	1-1/2"	415 (16.34)	457 (17.99)	11.00 (24.25)	48.15 (2938.29)	**NT850FN3H25N**
	—	—	250	E40	1-1/2"	415 (16.34)	457 (17.99)	13.73 (30.27)	48.15 (2938.29)	**NT850FN3M25N**
	—	100	—	E40	1-1/2"	415 (16.34)	457 (17.99)	11.74 (25.88)	48.15 (2938.29)	**NT850FN3S10N**
	—	150	—	E40	1-1/2"	415 (16.34)	457 (17.99)	12.97 (28.59)	48.15 (2938.29)	**NT850FN3S15N**
	—	250	—	E40	1-1/2"	415 (16.34)	457 (17.99)	13.73 (30.27)	48.15 (2938.29)	**NT850FN3S25N**
	250	150	250	E40	1-1/2"	415 (16.34)	457 (17.99)	12.82 (28.26)	48.15 (2938.29)	**NT850FN3E40N** ①
90° Stanchion										
	80	—	—	E27	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NT850HN2H08N**
	125	—	—	E27	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NT850HN2H12N**
	—	—	70	E27	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NT850HN2M07N**
	—	—	150	E27	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NT850HN2M15N**
NT850H–N 	—	70	—	E27	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NT850HN2S07N**
	125	70	70	E27	1-1/2"	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NT850HN2E27N** ①
	250	—	—	E40	1-1/2"	415 (16.34)	509 (20.04)	11.00 (24.25)	48.64 (2968.19)	**NT850HN3H25N**
	—	—	250	E40	1-1/2"	415 (16.34)	509 (20.04)	13.70 (30.20)	48.64 (2968.19)	**NT850HN3M25N**
	—	100	—	E40	1-1/2"	415 (16.34)	509 (20.04)	11.71 (25.82)	48.64 (2968.19)	**NT850HN3S10N**
	—	150	—	E40	1-1/2"	415 (16.34)	509 (20.04)	12.94 (28.53)	48.64 (2968.19)	**NT850HN3S15N**
	—	250	—	E40	1-1/2"	415 (16.34)	509 (20.04)	13.70 (30.20)	48.64 (2968.19)	**NT850HN3S25N**
	250	150	250	E40	1-1/2"	415 (16.34)	509 (20.04)	12.79 (28.20)	48.64 (2968.19)	**NT850HN3E40N** ①

① Fixture supplied without ballast.
② The 3/4" threaded entries can be replaced by M25; and the 1-1/2" can be replaced by M50. Contact your local sales representative for details.
*③ For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT850A**B**3H25N.*
*④ For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT850A**M**3H25N.*
*⑤ For optional reflector, add the letter **E** for a size 2 reflector or **F** for a size 3 reflector to the end of the catalog number; example: NT850AN3H25N**F**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NT850AN3H25NF**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NT850AN3H25NFA**1**.*
*⑥ For 230/240 V, 50 Hz ballast, add suffix **-235**. When ordering this voltage option, the reflector has to be ordered separately, options in the catalog numbering guide are not applicable. Example, to order a 125 W, 230/240 V, 50 Hz, mercury vapor fixture with a pendant mount and standard reflector, order two separate items; fixture catalog number **NT850AN2H12N235** and standard reflector catalog number **NEREA204**.*

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Reflectors

		Luminaire Type			Dimensions mm (in) A	Dimensions mm (in) Ø B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Shallow Dome		NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	78 (3.07)	410 (16.14)	0.72 (1.59)	13.00 (793.31)	**NEREA104**
		NT850AN3-N NT850EN3-N	NT850BN3-N NT850FN3-N	NT850CN3-N NT850HN3-N	90 (3.54)	530 (20.87)	0.82 (1.81)	24.70 (1507.29)	**NEREA105**
Standard Dome		NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	135 (5.31)	410 (16.14)	0.68 (1.50)	21.80 (1330.32)	**NEREA204**
		NT850AN3-N NT850EN3-N	NT850BN3-N NT850FN3-N	NT850CN3-N NT850HN3-N	75 (16.89)	530 (20.87)	1.20 (2.65)	50.00 (3051.19)	**NEREA205**
Deep Dome		NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	210 (8.27)	410 (16.14)	0.89 (1.96)	35.30 (2154.14)	**NEREA304**
		NT850AN3-N NT850EN3-N	NT850BN3-N NT850FN3-N	NT850CN3-N NT850HN3-N	250 (9.84)	530 (20.87)	1.36 (3.00)	71.50 (4363.20)	**NEREA305**
Angle		NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	260 (10.24)	410 (16.14)	0.95 (2.09)	51.00 (3112.21)	**NEREA404**
		NT850AN3-N NT850EN3-N	NT850BN3-N NT850FN3-N	NT850CN3-N NT850HN3-N	244 (9.61)	530 (20.87)	1.18 (2.60)	71.50 (4363.20)	**NEREA405**

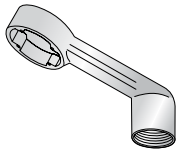
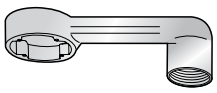
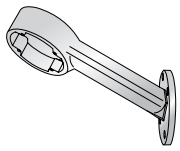
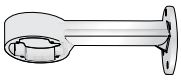
*① For reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position. Example: NERE**F**105.*

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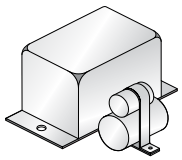
Nutsteel® NT850–N Series Luminaires

Industrial. Weatherproof. Watertight. High Pressure Sodium, Mercury Vapor, Metal Halide

Accessories

	Description	Luminaire Type			Catalog Number
	Protective Guard	NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	**NFGRD852TN**
		NT850AN3-N NT850EN3-N	NT850BN3-N NT850FN3-N	NT850CN3-N NT850HN3-N	**NFGRD853TN**
	Glass Globe	NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	**NXGLBN850N2**
		NT850AN3-N NT850EN3-N	NT850BN3-N NT850FN3-N	NT850CN3-N NT850HN3-N	**NXGLBN850N3**
	Mounting Hood with 4 Entries	NT850C-N		3/4" NPT	**NFCXA85TN**
				3/4" BSP	**NFCXA85TB**
		NT850E-N		M25	**NFCXA85TM**
	30° Stanchion Mounting Bracket	NT850F-N		1-1/2" NPT	**NFPES85FTN**
				1-1/2" BSP	**NFPES85FTB**
				M50	**NFPES85FTM**
	90° Stanchion Mounting Bracket	NT850H-N		1-1/2" NPT	**NFPES85HTN**
				1-1/2" BSP	**NFPES85HTB**
				M50	**NFPES85HTM**
	30° Wall Mounting Bracket	NT850C-N			**NFPES85CTN**
	90° Wall Mounting Bracket	NT850E-N			**NFPES85ETN**

High Power Factor Ballast (60 Hz) — For Use With Any Mounting Hood

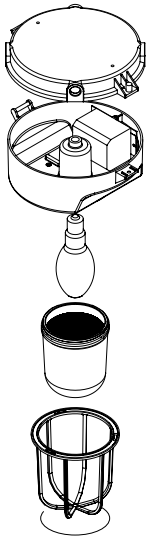
	Description	Size	Catalog Number
	Mercury Vapor 80 W	2	**NFCHT850H08**
	Mercury Vapor 125 W	2	**NFCHT850H12**
	Metal Halide 70 W	2	**NFCHT850M07**
	Metal Halide 150 W	2	**NFCHT850M15**
	High Pressure Sodium 70 W	2	**NFCHT850S07**
	Mercury Vapor 250 W	3	**NFCHT850H25**
	Metal Halide 250 W	3	**NFCHT850M25**
	High Pressure Sodium 100 W	3	**NFCHT850S10**
	High Pressure Sodium 150 W	3	**NFCHT850S15**
	High Pressure Sodium 250 W	3	**NFCHT850S25**

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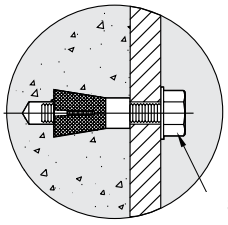
Nutsteel® NT850–N Series Luminaires

Industrial. Weatherproof. Watertight. High Pressure Sodium, Mercury Vapor, Metal Halide

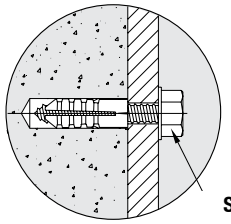
Installation and Maintenance



For Affixing to Concrete

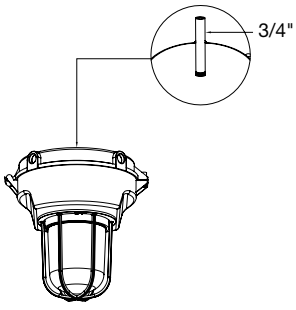


For Affixing to Masonry

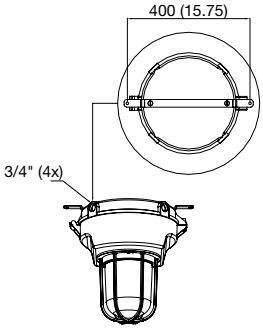


Mounting Details ① — Dimensions in Millimeters (Inches)

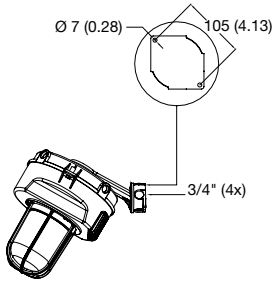
NT850A–N — Pendant



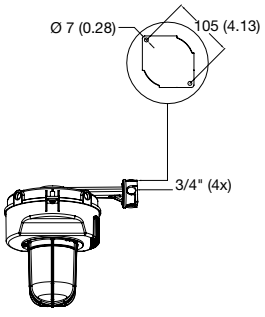
NT850B–N — Ceiling



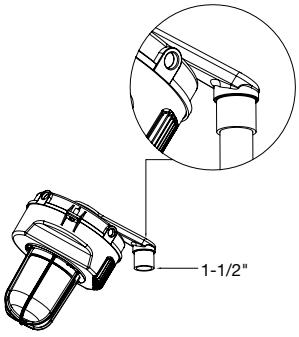
NT850C–N — 30° Wall



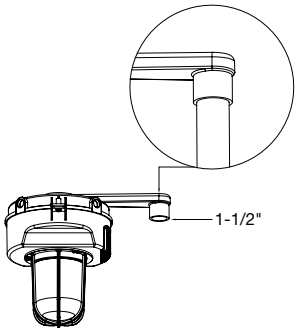
NT850E–N — 90° Wall



NT850F–N — 30° Stanchion



NT850H–N — 90° Stanchion



① *Any unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA.*

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Nutsteel® NT850–N Series 70 W High Pressure Sodium Luminaire Photometric Data

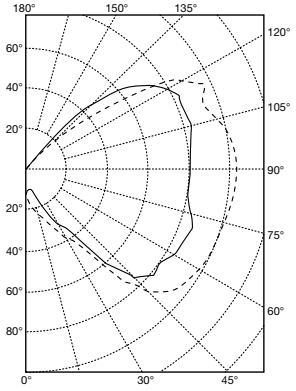
Industrial

Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

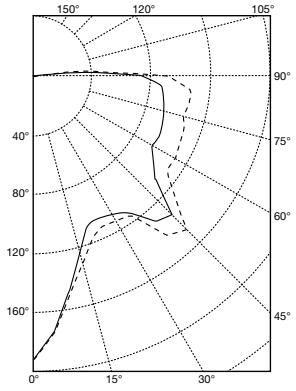
NT850-N

	0–180	90–270
0	15.93	18.74
5	13.68	11.62
10	18.26	9.79
15	25.99	10.18
20	25.57	11.77
25	30.84	22.76
30	40.12	30.84
35	44.55	35.45
40	68.86	60.51
45	86.50	76.44
50	93.77	82.16
55	97.55	81.35
60	99.19	84.97
65	98.98	85.45
70	100.87	87.40
75	101.05	83.80
80	102.04	80.66
85	104.04	80.78
90	103.83	80.72
95	102.90	81.14
100	100.75	82.93
105	96.32	84.07
110	92.43	82.49
115	96.44	82.90
120	86.74	78.86
125	65.39	71.50
130	33.00	58.92
135	9.13	40.96
140	1.56	12.75
145	0.81	1.62
150	0.45	0.93
155	0.36	0.57
160	0.30	0.33
165	0.30	0.30
170	0	0
175	0	0
180	0	0



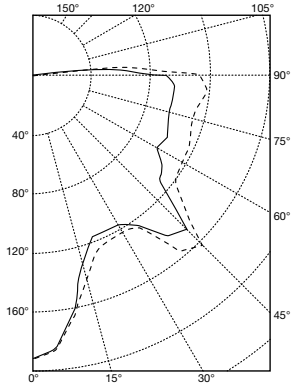
NT850-N with NEREA104

	0–180	90–270
0	191.77	191.77
5	174.67	173.55
10	148.37	145.65
15	132.17	122.41
20	117.22	108.06
25	112.09	105.95
30	112.89	108.39
35	115.22	113.08
40	140.39	128.60
45	147.54	133.23
50	122.40	107.10
55	110.83	99.73
60	110.68	92.67
65	109.57	94.71
70	108.38	92.67
75	105.15	91.16
80	106.75	89.78
85	107.21	87.02
90	89.90	72.13
95	37.37	31.14
100	3.56	3.50
105	2.22	2.22
110	1.26	1.23
115	0.81	0.75
120	0.60	0.57
125	0.60	0.57
130	0.60	0.57
135	0.60	0.57
140	0.60	0.57
145	0.57	0.60
150	0.60	0.63
155	0.57	0.63
160	0.60	0.63
165	0.63	0.63
170	0	0
175	0	0
180	0	0



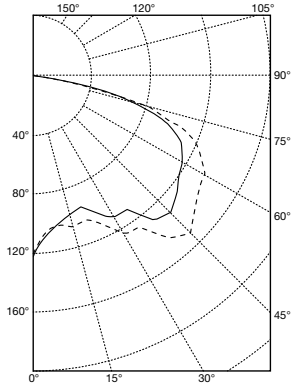
NT850-N with NEREA204

	0–180	90–270
0	191.77	191.77
5	187.23	186.03
10	165.31	162.27
15	142.44	131.92
20	126.64	116.75
25	122.95	116.21
30	121.71	116.86
35	125.59	123.26
40	155.19	142.16
45	162.98	147.17
50	129.64	113.43
55	118.44	106.58
60	116.40	97.45
65	115.81	100.10
70	113.18	96.77
75	111.17	96.38
80	114.62	96.40
85	118.51	96.19
90	114.40	91.79
95	61.55	51.29
100	7.38	7.25
105	2.69	2.69
110	1.52	1.48
115	0.96	0.89
120	0.60	0.57
125	0.60	0.57
130	0.60	0.57
135	0.64	0.61
140	0.60	0.57
145	0.63	0.66
150	0.63	0.66
155	0.60	0.66
160	0.63	0.66
165	0.64	0.64
170	0	0
175	0	0
180	0	0



NT850-N with NEREA304

	0–180	90–270
0	127.13	127.13
5	110.43	113.50
10	107.59	104.86
15	110.56	101.81
20	108.48	99.54
25	117.49	108.24
30	129.44	116.01
35	131.48	116.01
40	150.19	133.26
45	157.31	137.61
50	147.64	132.68
55	142.19	125.53
60	138.78	121.99
65	130.27	116.43
70	117.05	103.32
75	84.70	79.48
80	39.55	39.39
85	6.55	9.85
90	2.82	3.08
95	1.68	1.95
100	0.96	1.08
105	0.63	0.63
110	0.54	0.54
115	0.60	0.57
120	0.60	0.60
125	0.66	0.60
130	0.66	0.60
135	0.66	0.63
140	0.66	0.63
145	0.66	0.60
150	0.66	0.60
155	0.60	0.60
160	0.60	0.60
165	0.60	0.60
170	0	0
175	0	0
180	0	0



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Nutsteel® NT850–N Series 80 W Mercury Vapor Luminaire Photometric Data

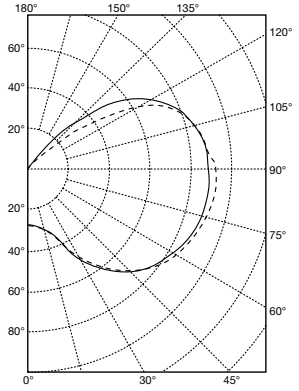
Industrial

Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

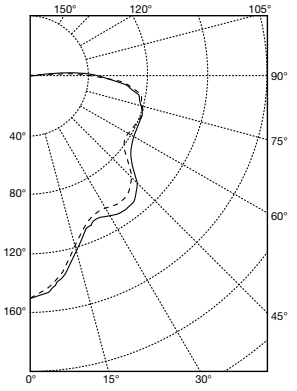
NT850-N

	0–180	90–270
0	23.31	23.31
5	23.74	23.76
10	24.82	24.96
15	26.26	26.20
20	29.01	28.51
25	34.21	34.29
30	41.08	42.72
35	48.16	49.81
40	55.06	56.01
45	60.50	61.45
50	65.02	65.44
55	68.82	68.38
60	72.09	70.78
65	74.50	73.24
70	76.39	74.97
75	78.24	76.00
80	79.04	76.39
85	79.23	76.50
90	79.51	76.60
95	76.32	75.94
100	75.71	74.93
105	73.32	72.73
110	69.32	69.74
115	64.61	65.59
120	53.32	59.98
125	38.10	52.70
130	23.11	42.36
135	12.52	29.18
140	3.08	16.74
145	0.59	5.44
150	0.27	0.95
155	0.21	0.38
160	0.17	0.17
165	0.15	0.15
170	0	0
175	0	0
180	0	0



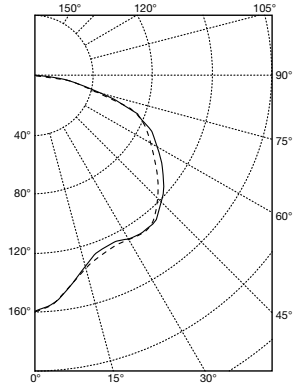
NT850-N with NEREA104

	0–180	90–270
0	150.17	150.17
5	143.74	147.31
10	133.54	136.78
15	118.82	123.02
20	108.29	111.09
25	103.11	106.66
30	103.06	109.58
35	105.51	111.58
40	104.59	110.71
45	98.70	103.26
50	86.92	89.82
55	78.09	83.78
60	77.59	81.29
65	79.29	81.02
70	79.78	80.70
75	79.56	78.87
80	76.39	75.09
85	65.93	64.34
90	47.98	45.24
95	25.85	23.45
100	11.00	9.45
105	3.20	2.62
110	1.28	1.23
115	0.85	0.80
120	0.64	0.64
125	0.64	0.64
130	0.64	0.64
135	0.64	0.64
140	0.64	0.64
145	0.64	0.64
150	0.64	0.75
155	0.64	0.75
160	0.75	0.75
165	0.75	0.75
170	0	0
175	0	0
180	0	0



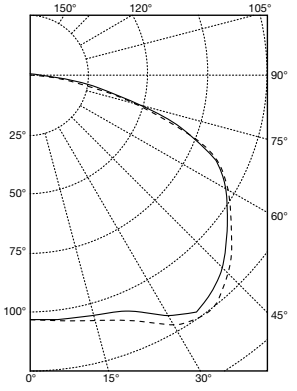
NT850-N with NEREA204

	0–180	90–270
0	160.04	160.04
5	155.69	155.78
10	145.01	145.12
15	135.27	133.94
20	129.33	127.17
25	127.40	124.86
30	127.90	127.43
35	131.09	129.58
40	127.12	127.95
45	118.15	122.18
50	109.30	114.51
55	99.72	105.64
60	91.19	96.30
65	84.70	86.84
70	73.80	73.19
75	53.33	50.30
80	29.44	26.88
85	12.82	11.03
90	3.36	2.89
95	1.55	1.66
100	0.91	0.96
105	0.59	0.53
110	0.53	0.53
115	0.64	0.64
120	0.64	0.64
125	0.64	0.69
130	0.69	0.75
135	0.69	0.75
140	0.75	0.75
145	0.75	0.75
150	0.75	0.75
155	0.75	0.80
160	0.80	0.80
165	0.80	0.85
170	0	0
175	0	0
180	0	0



NT850-N with NEREA304

	0–180	90–270
0	104.62	104.62
5	104.79	104.88
10	106.09	104.93
15	107.96	105.77
20	110.45	106.97
25	115.60	111.00
30	122.17	118.43
35	126.30	122.98
40	124.32	120.36
45	118.83	115.23
50	111.07	108.91
55	103.54	102.10
60	97.14	95.78
65	87.52	87.04
70	71.16	70.88
75	47.95	48.54
80	25.98	26.62
85	11.55	11.87
90	3.51	3.77
95	1.55	1.82
100	0.96	1.12
105	0.64	0.69
110	0.53	0.53
115	0.59	0.64
120	0.64	0.64
125	0.64	0.64
130	0.64	0.64
135	0.69	0.75
140	0.69	0.75
145	0.69	0.75
150	0.69	0.75
155	0.69	0.75
160	0.69	0.75
165	0.69	0.75
170	0	0
175	0	0
180	0	0



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Nutsteel® NT850–N Series 250 W Metal Halide Luminaire Photometric Data

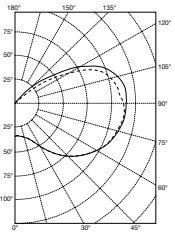
Industrial

Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

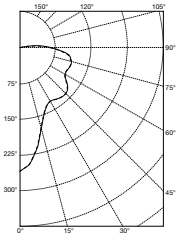
NT850-N

	0–180	90–270
0	32.88	32.88
5	32.65	32.30
10	33.34	33.46
15	34.61	34.95
20	37.22	37.09
25	41.31	40.59
30	48.64	47.83
35	58.90	57.53
40	68.28	66.96
45	76.24	75.14
50	83.52	82.89
55	90.23	89.82
60	95.88	96.06
65	100.75	101.21
70	104.82	105.75
75	108.01	109.12
80	110.26	111.76
85	111.49	113.06
90	111.37	113.12
95	107.27	114.50
100	105.47	112.58
105	101.84	108.49
110	96.30	102.11
115	83.26	91.59
120	65.44	76.39
125	45.97	58.29
130	27.19	39.65
135	12.41	23.62
140	3.73	11.45
145	1.12	3.74
150	0.50	0.82
155	0.29	0.37
160	0.22	0.23
165	0.21	0.21
170	0	0
175	0	0
180	0	0



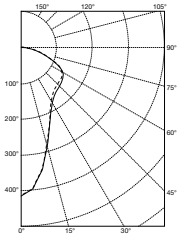
NT850-N with NEREA105

	0–180	90–270
0	261.68	261.68
5	248.99	247.31
10	215.18	213.57
15	177.68	175.80
20	149.49	148.91
25	134.77	134.11
30	130.95	130.30
35	134.32	133.13
40	138.37	137.48
45	137.02	137.92
50	130.28	132.04
55	118.37	119.09
60	108.72	109.18
65	109.95	110.49
70	112.54	113.32
75	112.42	112.99
80	106.47	106.24
85	89.62	87.85
90	60.76	58.56
95	34.25	33.92
100	16.36	16.36
105	5.60	5.71
110	1.76	1.87
115	1.12	1.21
120	1.10	1.10
125	1.10	1.10
130	1.10	1.10
135	1.10	1.10
140	1.10	1.10
145	1.10	1.10
150	1.10	1.10
155	1.10	1.10
160	1.10	1.10
165	1.10	1.12
170	0	0
175	0	0
180	0	0



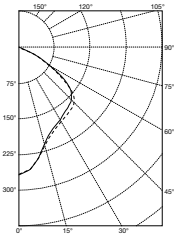
NT850-N with NEREA205

	0–180	90–270
0	418.25	418.25
5	400.96	398.35
10	350.88	350.88
15	287.75	288.75
20	233.77	236.58
25	195.74	199.94
30	170.98	177.30
35	157.15	164.94
40	149.46	158.38
45	145.33	153.56
50	144.88	150.94
55	140.08	145.25
60	130.16	133.77
65	111.53	112.44
70	81.20	81.49
75	50.30	50.64
80	26.99	27.23
85	10.82	11.27
90	2.34	2.19
95	0.99	1.10
100	0.88	0.88
105	0.88	0.88
110	0.88	0.88
115	1.10	1.10
120	1.10	1.10
125	1.10	1.10
130	1.10	1.10
135	1.10	1.10
140	1.10	1.10
145	1.32	1.32
150	1.32	1.32
155	1.32	1.32
160	1.32	1.43
165	1.54	1.54
170	0	0
175	0	0
180	0	0



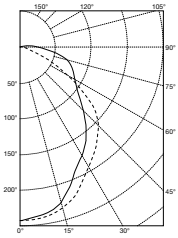
NT850-N with NEREA305

	0–180	90–270
0	267.57	267.57
5	259.65	258.69
10	237.44	237.00
15	212.07	209.78
20	196.21	191.90
25	186.58	182.03
30	180.57	177.59
35	174.91	167.94
40	172.08	164.58
45	165.51	158.08
50	150.21	145.60
55	118.27	118.39
60	80.09	81.42
65	46.33	48.46
70	21.41	23.63
75	8.61	8.67
80	3.96	3.69
85	2.04	1.84
90	0.68	0.65
95	0.66	0.66
100	0.66	0.66
105	0.77	0.88
110	0.88	0.88
115	0.88	0.88
120	0.88	0.99
125	0.99	1.10
130	1.10	1.10
135	1.10	1.10
140	1.10	1.10
145	1.10	1.21
150	1.32	1.32
155	1.32	1.32
160	1.32	1.32
165	1.32	1.32
170	0	0
175	0	0
180	0	0



NT850-N with NEREA305

	0–180	90–270
0	242.54	242.54
5	241.62	239.27
10	238.38	235.00
15	232.72	225.37
20	224.16	207.55
25	208.67	189.18
30	194.92	175.41
35	183.12	162.83
40	170.06	145.44
45	156.76	127.18
50	139.65	110.66
55	111.10	97.87
60	78.84	89.89
65	51.56	84.31
70	29.83	77.97
75	14.33	68.89
80	6.01	54.90
85	2.31	38.05
90	0.69	23.84
95	0.66	13.61
100	0.66	6.70
105	0.77	2.85
110	0.88	1.32
115	0.88	0.88
120	0.88	0.88
125	0.99	1.10
130	1.10	1.10
135	1.10	1.10
140	1.10	1.10
145	1.21	1.10
150	1.32	1.32
155	1.32	1.32
160	1.32	1.32
165	1.32	0.43
170	0	0
175	0	0
180	0	0



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Nutsteel® NT800–N Series Luminaires

Industrial. Weatherproof. Watertight. Incandescent, Compact Fluorescent, Mixed

NBR IEC:
IP66

Applications

- Suitable for use in environments containing moisture, non-flammable gases and vapors.
- Typical applications include:
  - — Engine room lighting
  - — Industrial kitchens
  - — Washing boxes
  - — Electroplating facilities
  - — Refrigeration facilities
  - — Docks
  - — Walkways
  - — Bridges
  - — Tunnels
  - — Parking lots

Features

- Manufactured in three models:
  - — Ceiling, 30° wall and 90° wall mounts have four threaded entries.
  - — Pendant, 30° stanchion and 90° stanchion have one threaded entry.
- Voltage: 127/220 V, 50/60 Hz.
- Impact and thermal shock-resistant globe threads directly into ballast housing.
- Supplied with guard.
- NPT threads standard. BSP and metric threads available.
- Optional NEREA reflector is lightweight, durable and corrosion-resistant.
- Lamp not supplied.

Standard Material

- Body and guard: copperfree cast aluminum alloy
- Globe: impact and thermal shock-resistant threaded glass
- Socket: strengthened porcelain
- Gasket: silicone
- Screws and washers: external fixation of AISI 304 stainless steel
- NEREA reflector: anodized aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT800A**B**2E27N.
- For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT800A**M**2E27N.
- For optional reflector, add the letter **E** to the end of the catalog number; example: NT800AN2E27N**E**.
- For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NT800AN2E27NE**A**.
- For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NT800AN2E27NEA**1**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- Other Standards: ABNT NBR IEC 60529 (IP)



Pendant Mount



Optional NEREA Reflector

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Industrial. Weatherproof. Watertight. Incandescent, Compact Fluorescent, Mixed

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Order using catalog numbering guide below or select catalog number from tables below and on following pages.

Catalog Numbering Guide

NT800 — Series: NT800 - NT800 Series NBR IEC Certified

A — Mounting: A - Pendant; B - Ceiling; C - 30° Wall; E - 90° Wall; F - 30° Stanchion; H - 90° Stanchion

N — Thread: N - NPT; B - BSP; M - Metric

2 — Luminaire Size: 2 - Size 2

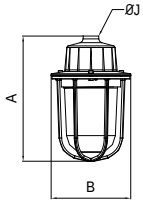
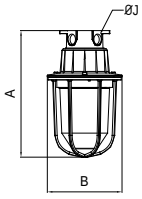
E27 — Lamp Type: E27 - E27 Socket

N — N - New Generation

E — Optional Reflector Type: E - For size 2

A — Optional Reflector Material: A- Aluminum; F - Porcelain Steel

1 — Optional Reflector Sizes: 1 - Shallow; 2 - Standard; 3 - Deep; 4 - Angle

	Lamp Type and Wattage				Threaded Entries	Dimensions mm (in)				
	Incandescent	Compact Fluorescent	Mixed	Socket	ø J ①	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①②
Pendant										
NT800A–N 	200	23	160	E-27	3/4”	283 (11.14)	180 (7.09)	2.54 (5.60)	9.89 (603.52)	**NT800AN2E27N**
Ceiling										
NT800B–N 	200	23	160	E-27	3/4”	304 (11.97)	180 (7.09)	2.63 (5.80)	10.24 (624.88)	**NT800BN2E27N**

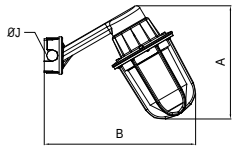
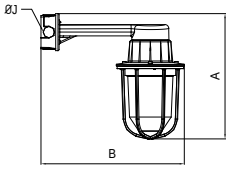
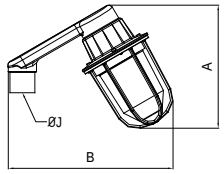
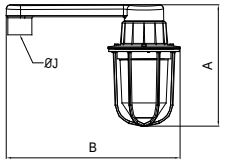
① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT800A**B**2E27N.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT800A**M**2E27N.*
*② For optional reflector, add the letter **E** to the end of the catalog number; example: NT800AN2E27N**E**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NT800AN2E27NE**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NT800AN2E27NEA**1**.*

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Nutsteel® NT800–N Series Luminaires

Industrial. Weatherproof. Watertight. Incandescent, Compact Fluorescent, Mixed

NBR IEC:
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	Lamp Type and Wattage				Threaded Entries	Dimensions mm (in)				
	Incandescent	Compact Fluorescent	Mixed	Socket	ø J ①	A	B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①②
30° Wall										
NT800C–N										
	200	23	160	E-27	3/4”	297 (10.98)	397 (15.63)	3.25 (7.17)	12.55 (765.85)	**NT800CN2E27N**
90° Wall										
NT800E–N										
	200	23	160	E-27	3/4”	332 (13.07)	380 (14.96)	3.35 (7.39)	12.93 (789.04)	**NT800EN2E27N**
30° Stanchion										
NT800F–N										
	200	23	160	E-27	1 1/2”	297 (10.98)	397 (15.63)	3.19 (7.03)	12.39 (756.08)	**NT800FN2E27N**
90° Stanchion										
NT800H–N										
	200	23	160	E-27	1 1/2”	303 (11.93)	434 (17.09)	3.32 (7.32)	12.88 (785.99)	**NT800HN2E27N**

① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT800A**B**2E27N.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT800A**M**2E27N.*
*② For optional reflector, add the letter **E** to the end of the catalog number; example: NT800AN2E27N**E**.*
*For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NT800AN2E27NE**A**.*
*For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NT800AN2E27NEA**1**.*

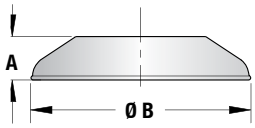
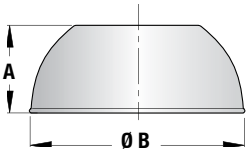
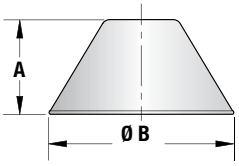
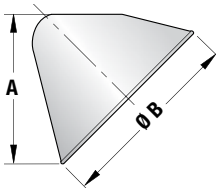
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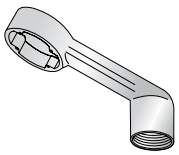
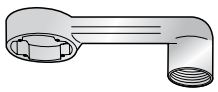
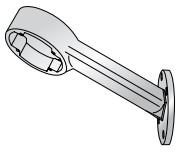
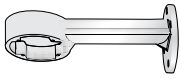
Accessories

		Luminaire Type			Dimensions mm (in) A	Ø B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Shallow Dome		NT800A-N NT800E-N	NT800B-N NT800F-N	NT800C-N NT800H-N	78 (3.07)	410 (16.14)	0.72 (1.59)	13.00 (793.31)	**NEREA104**
Standard Dome		NT800A-N NT800E-N	NT800B-N NT800F-N	NT800C-N NT800H-N	135 (5.31)	410 (16.14)	0.68 (1.50)	21.80 (1330.32)	**NEREA204**
Deep Dome		NT800A-N NT800E-N	NT800B-N NT800F-N	NT800C-N NT800H-N	210 (8.27)	410 (16.14)	0.89 (1.96)	35.30 (2154.14)	**NEREA304**
Angle		NT800A-N NT800E-N	NT800B-N NT800F-N	NT800C-N NT800H-N	260 (10.24)	410 (16.14)	0.95 (2.09)	51.00 (3112.21)	**NEREA404**

① *For reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position. Example: NERE**F**104.*

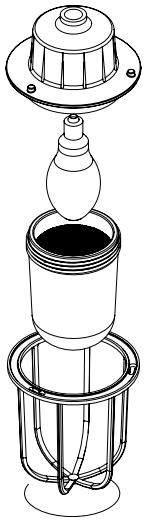
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Accessories

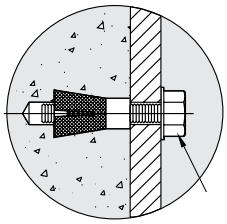
	Description	Luminaire Type			Catalog Number
	Protective Guard	NT800A-N NT800E-N	NT800B-N NT800F-N	NT800C-N NT800H-N	**NFGRD852TN**
	Glass Globe	NT800A-N NT800E-N	NT800B-N NT800F-N	NT800C-N NT800H-N	**NXGLBN850N2**
	Mounting Hood with 4 Entries	NT800B-N NT800C-N NT800E-N	3/4" NPT 3/4" BSP M25		**NFCXA85TN** **NFCXA85TB** **NFCXA85TM**
	30° Stanchion Mounting Bracket	NT800F-N	1-1/2" NPT 1-1/2" BSP M50		**NFPES85FTN** **NFPES85FTB** **NFPES85FTM**
	90° Stanchion Mounting Bracket	NT800H-N	1-1/2" NPT 1-1/2" BSP M50		**NFPES85HTN** **NFPES85HTB** **NFPES85HTM**
	30° Wall Mounting Bracket	NT800C-N			**NFPES85CTN**
	90° Wall Mounting Bracket	NT800E-N			**NFPES85ETN**

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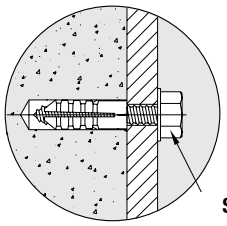
Installation and Maintenance



For Affixing to Concrete

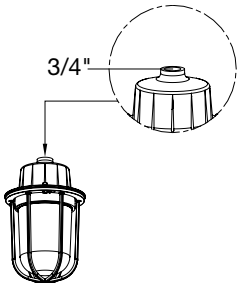


For Affixing to Masonry

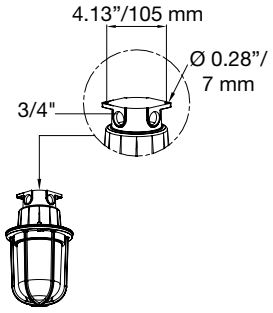


Mounting Details ① — Dimensions in Millimeters (Inches)

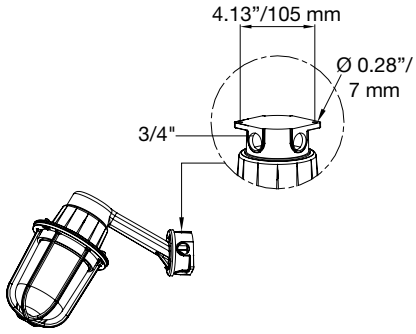
NT800A–N — Pendant



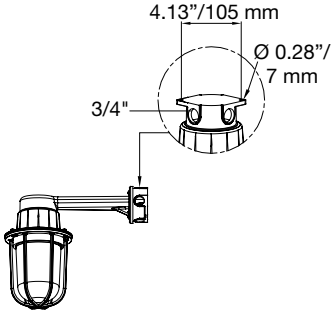
NT800B–N — Ceiling



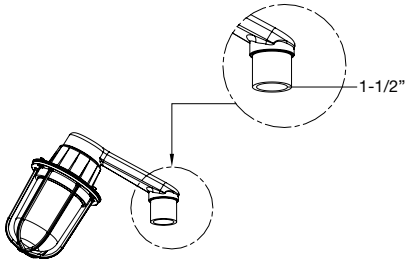
NT800C–N — 30° Wall



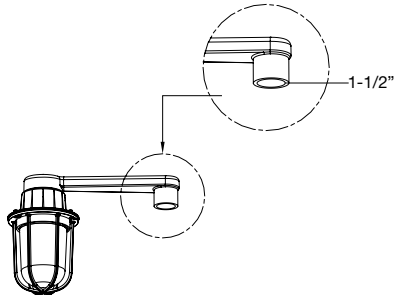
NT800E–N — 90° Wall



NT800F–N — 30° Stanchion



NT800H–N — 90° Stanchion



① Any unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA or plastic plug, Catalog Number NTBJS02BP.

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Nutsteel® NT800–N Series 23 W Compact Fluorescent Photometric Data

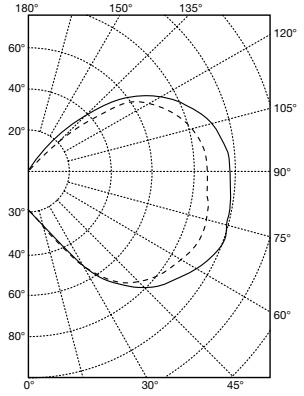
Industrial. Weatherproof. Watertight.

Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

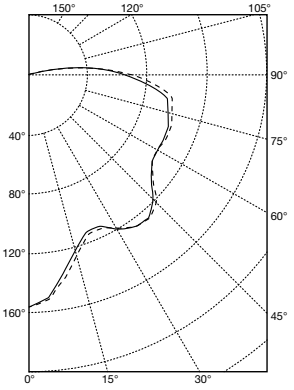
NT800-N

	0–180	90–270
0	19.33	19.33
5	20.34	19.94
10	23.35	22.50
15	27.48	28.04
20	33.00	34.54
25	40.47	42.08
30	52.71	52.83
35	63.12	63.36
40	70.77	72.60
45	75.59	79.96
50	79.64	85.60
55	82.92	89.54
60	85.46	93.32
65	87.98	97.74
70	89.48	99.86
75	88.74	99.33
80	87.84	98.79
85	86.47	97.54
90	86.27	97.34
95	85.85	96.91
100	84.00	94.50
105	81.48	91.18
110	77.28	86.31
115	72.26	79.91
120	66.92	73.23
125	59.22	63.82
130	42.68	51.98
135	19.38	37.95
140	9.26	23.26
145	4.62	11.76
150	1.96	4.18
155	0.67	1.04
160	0.24	0.36
165	0.21	0.21
170	0	0
175	0	0
180	0	0



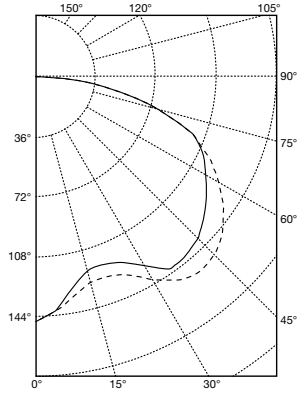
NT800-N with NEREA104

	0–180	90–270
0	157.08	157.08
5	151.56	152.92
10	136.23	140.16
15	121.69	125.80
20	113.61	115.86
25	113.49	114.41
30	120.82	120.79
35	125.96	126.08
40	125.74	127.16
45	119.71	121.83
50	107.22	109.70
55	101.46	101.89
60	100.36	100.88
65	100.75	101.85
70	100.09	101.66
75	97.35	99.82
80	94.62	97.61
85	81.84	86.54
90	63.29	68.43
95	43.70	47.74
100	23.92	26.87
105	5.94	7.90
110	1.62	1.67
115	0.99	1.04
120	0.59	0.59
125	0.59	0.58
130	0.59	0.59
135	0.61	0.61
140	0.62	0.62
145	0.62	0.63
150	0.65	0.63
155	0.65	0.63
160	0.65	0.65
165	0.65	0.65
170	0	0
175	0	0
180	0	0



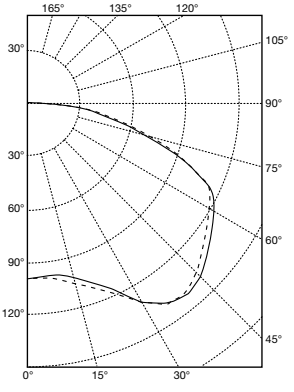
NT800-N with NEREA204

	0–180	90–270
0	146.98	146.98
5	141.12	142.16
10	128.04	133.98
15	120.72	128.13
20	120.11	127.44
25	123.03	130.88
30	131.41	141.39
35	141.22	149.84
40	140.35	153.18
45	137.54	151.85
50	132.07	145.89
55	125.50	137.08
60	118.17	126.72
65	111.22	115.71
70	100.57	99.54
75	78.59	76.02
80	54.51	51.19
85	30.56	27.21
90	10.11	7.06
95	1.99	1.90
100	1.13	1.08
105	0.53	0.49
110	0.49	0.49
115	0.53	0.55
120	0.57	0.61
125	0.62	0.63
130	0.65	0.67
135	0.67	0.70
140	0.67	0.71
145	0.69	0.71
150	0.69	0.71
155	0.71	0.71
160	0.71	0.70
165	0.71	0.69
170	0	0
175	0	0
180	0	0



NT800-N with NEREA304

	0–180	90–270
0	100.77	100.77
5	100.11	100.24
10	99.36	101.78
15	102.90	106.36
20	109.85	111.93
25	117.47	119.17
30	130.77	130.29
35	139.34	139.92
40	142.64	141.03
45	140.42	137.46
50	134.41	130.78
55	128.23	125.25
60	123.24	121.19
65	116.01	114.87
70	96.73	98.42
75	71.59	74.92
80	48.35	51.72
85	27.02	30.05
90	9.43	11.75
95	1.88	1.99
100	1.13	1.19
105	0.70	0.76
110	0.46	0.47
115	0.51	0.53
120	0.57	0.57
125	0.61	0.59
130	0.63	0.62
135	0.66	0.65
140	0.70	0.66
145	0.66	0.66
150	0.67	0.66
155	0.66	0.65
160	0.65	0.62
165	0.63	0.61
170	0	0
175	0	0
180	0	0



Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NT800–N Series 160 W Mixed Photometric Data

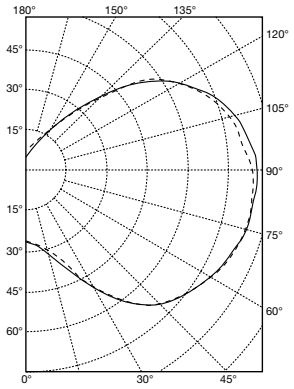
Industrial. Weatherproof. Watertight.

Photometric curves are available upon request.
Please contact your local sales representative.

Longitudinal
Transverse

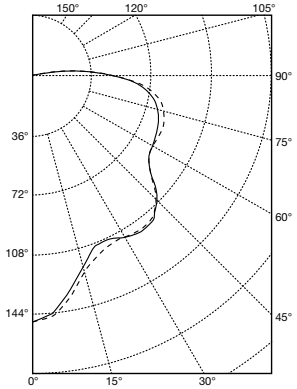
NT800-N

	0–180	90–270
0	29.12	29.12
5	30.53	29.51
10	31.09	32.14
15	33.35	34.63
20	37.19	40.57
25	46.49	45.93
30	54.50	54.35
35	61.32	61.05
40	66.47	66.45
45	70.94	70.82
50	73.86	73.40
55	75.59	75.47
60	77.68	77.80
65	80.12	79.56
70	80.82	80.71
75	80.57	81.47
80	80.58	81.56
85	80.45	81.71
90	79.44	81.30
95	75.78	78.75
100	73.89	76.33
105	70.70	73.21
110	67.77	69.00
115	62.44	63.38
120	55.86	56.68
125	48.51	49.11
130	34.29	39.62
135	14.15	26.96
140	7.38	15.78
145	3.45	7.99
150	1.08	2.73
155	0.49	0.82
160	0.20	0.31
165	0.18	0.18
170	0	0
175	0	0
180	0	0



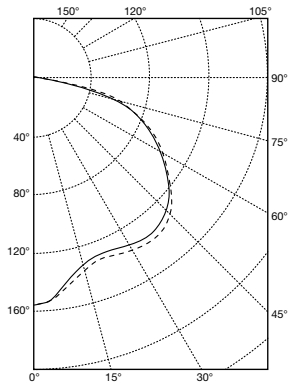
NT800-N with NEREA104

	0–180	90–270
0	148.55	148.55
5	144.18	145.63
10	132.14	135.13
15	119.11	123.08
20	110.69	115.23
25	109.07	112.51
30	112.31	112.84
35	115.37	114.07
40	114.68	112.64
45	107.57	105.90
50	93.29	94.11
55	85.43	86.91
60	83.44	84.51
65	82.57	84.90
70	81.01	83.99
75	78.58	82.11
80	73.84	77.45
85	64.48	68.12
90	48.77	52.50
95	26.26	27.15
100	10.01	10.20
105	2.55	2.42
110	1.59	1.59
115	1.08	1.08
120	0.83	0.83
125	0.83	0.83
130	0.83	0.83
135	0.89	0.83
140	0.89	0.83
145	0.89	0.83
150	0.89	0.89
155	0.89	0.89
160	0.96	0.89
165	0.89	0.89
170	0	0
175	0	0
180	0	0



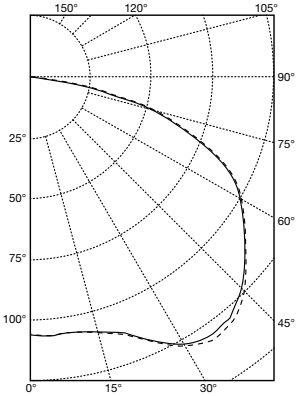
NT800-N with NEREA204

	0–180	90–270
0	156.60	156.60
5	153.45	153.80
10	141.53	144.96
15	132.68	136.31
20	129.15	132.41
25	130.37	133.77
30	132.42	136.70
35	134.41	138.45
40	133.51	137.87
45	129.67	132.54
50	122.16	124.15
55	111.32	112.90
60	100.36	102.88
65	90.29	92.15
70	77.14	79.34
75	57.20	59.37
80	31.55	32.97
85	13.02	13.33
90	3.46	3.58
95	1.85	1.78
100	1.15	1.08
105	0.70	0.70
110	0.70	0.64
115	0.76	0.76
120	0.76	0.76
125	0.83	0.83
130	0.83	0.89
135	0.96	0.96
140	0.96	0.96
145	0.96	0.96
150	0.96	0.96
155	1.02	0.96
160	1.02	1.02
165	1.02	1.02
170	0	0
175	0	0
180	0	0



NT800-N with NEREA304

	0–180	90–270
0	105.55	105.55
5	106.32	105.62
10	106.13	106.01
15	107.54	108.32
20	111.39	112.48
25	119.54	119.87
30	127.19	126.99
35	129.50	131.61
40	128.28	130.09
45	122.95	124.29
50	115.37	115.64
55	107.41	107.66
60	99.84	100.54
65	89.82	91.23
70	73.51	75.14
75	53.16	55.08
80	29.53	30.48
85	13.03	13.13
90	3.79	3.76
95	2.04	1.78
100	1.27	1.21
105	0.83	0.83
110	0.70	0.70
115	0.76	0.76
120	0.76	0.76
125	0.83	0.83
130	0.83	0.83
135	0.89	0.89
140	0.89	0.89
145	0.96	0.89
150	0.89	0.89
155	0.89	0.89
160	0.89	0.89
165	0.89	0.89
170	0	0
175	0	0
180	0	0



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Nutsteel® NT952 Series Outdoor Fixtures

Industrial. Mercury Vapor, High Pressure Sodium, Metal Vapor

NBR IEC:
IP66

Applications

- For the illumination of outdoor locations such as:
  - — Parking lots
  - — Courtyards
  - — Streets
  - — Squares
  - — Parks

Features

- Body is designed to tilt for easing maintenance.
- Choice of mounting pole or angled mounting arm available.
- Fixture attaches to available mounting with set screws.
- Supplied assembled and sealed with ballast, capacitor and igniter.
- Lamp not supplied.

Standard Material

- Housing: cast aluminum alloy
- Refractor: tempered, high heat resistant, flat glass
- Internal reflector: anodized aluminum
- Sealing gasket: silicone
- Socket: reinforced porcelain
- Fasteners: AISI 304 stainless steel

Standard Finishes

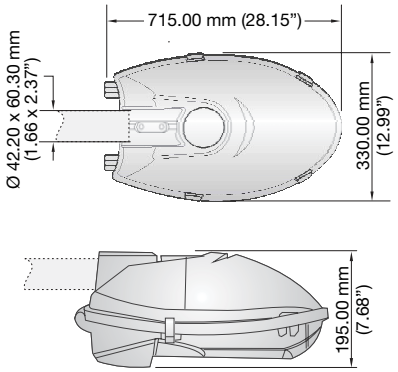
- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection: IP66
- Other standards: ABNT NBR IEC 60529 (IP)



Dimensions in (Millimeters) Inches



Lamp Type and Wattage							
Mercury Vapor	High Pressure Sodium	Metal Halide	Lamp Shape	Socket	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number
80	—	—	Ovoid	E27	5.3 (11.68)	130.1 (7939.19)	**NT952UP9H08**
125	—	—	Ovoid	E27	5.3 (11.68)	130.1 (7939.19)	**NT952UP9H12**
—	—	70	Tubular/Ovoid	E27	5.3 (11.68)	130.1 (7939.19)	**NT952UP9M07**
—	—	100	Tubular/Ovoid	E27	5.3 (11.68)	130.1 (7939.19)	**NT952UP9M10**
—	—	150	Tubular/Ovoid	E40	6.5 (14.33)	130.1 (7939.19)	**NT952UP9M15**
—	70	—	Tubular/Ovoid	E27	5.3 (11.68)	130.1 (7939.19)	**NT952UP9S07**
—	100	—	Tubular/Ovoid	E40	5.4 (11.90)	130.1 (7939.19)	**NT952UP9S10**
—	150	—	Tubular/Ovoid	E40	6.6 (14.55)	130.1 (7939.19)	**NT952UP9S15**

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NT951 Series Outdoor Fixtures

Industrial. Mercury Vapor, High Pressure Sodium, Metal Vapor

NBR IEC:
Optical Assembly — IP66
Housing — IP33

Applications

- For the illumination of outdoor locations such as:
  - — Parking lots
  - — Courtyards
  - — Streets
  - — Squares
  - — Parks

Features

- Body is designed to tilt for easing maintenance.
- Choice of mounting pole or angled mounting arm available.
- Fixture attaches to available mounting with set screws.
- Supplied assembled with ballast, capacitor and igniter.
- Lamp not supplied.

Standard Material

- Housing: cast aluminum alloy
- Refractor: tempered, high heat resistant, flat glass
- Internal reflector: anodized aluminum
- Sealing gasket: silicone
- Socket: reinforced porcelain
- Fasteners: AISI 304 stainless steel

Standard FinishesR.

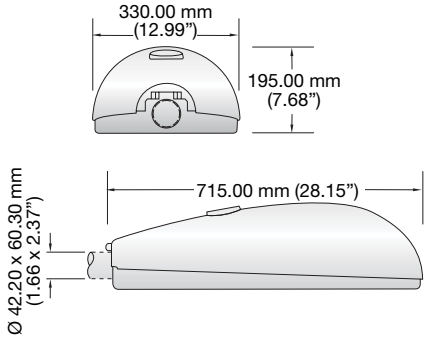
Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection: IP66 (optical assembly), IP33 (housing)
- Other standards: ABNT NBR IEC 60529 (IP)



Dimensions in Millimeters (Inches)



Lamp Type and Wattage							
Mercury Vapor	High Pressure Sodium	Metal Halide	Lamp Shape	Socket	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number
250	—	—	Ovoid	E40	10.0 (22.05)	56.17 (3427.7)	**NT951UP9H25**
—	—	150	Tubular/Ovoid	E40	10.0 (22.05)	56.17 (3427.7)	**NT951UP9M15**
—	—	250	Tubular/Ovoid	E40	10.9 (24.03)	56.17 (3427.7)	**NT951UP9M25**
—	—	400	Tubular/Ovoid	E40	11.9 (26.23)	56.17 (3427.7)	**NT951UP9M40**
—	150	—	Tubular/Ovoid	E40	10.1 (22.27)	56.17 (3427.7)	**NT951UP9S15**
—	250	—	Tubular/Ovoid	E40	10.9 (24.03)	56.17 (3427.7)	**NT951UP9S25**
—	400	—	Tubular/Ovoid	E40	11.9 (26.23)	56.17 (3427.7)	**NT951UP9S40**

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Nutsteel® NT350A Series Luminaires

Industrial. Mercury Vapor, High Pressure Sodium, Metal Halide

Applications

- For the illumination of industrial locations such as:
  - — Warehouses
  - — Stock rooms
  - — Storage facilities
  - — Garages

Features

- Comes assembled with ballast.
- High power factor: 220 Volt, 60 Hz.
- Available with and without lens.
- Lamp not supplied.
- BSP threads are standard, NPT threads available.

Standard Material

- Ballast housing and socket holder: cast aluminum alloy
- Reflector: sheet aluminum
- Lens: flat tempered glass
- Lens ring: aluminum
- Sealing gasket: SBR rubber
- Socket: reinforced porcelain
- Screws, nuts and washers: AISI 304 stainless steel

Standard Finishes

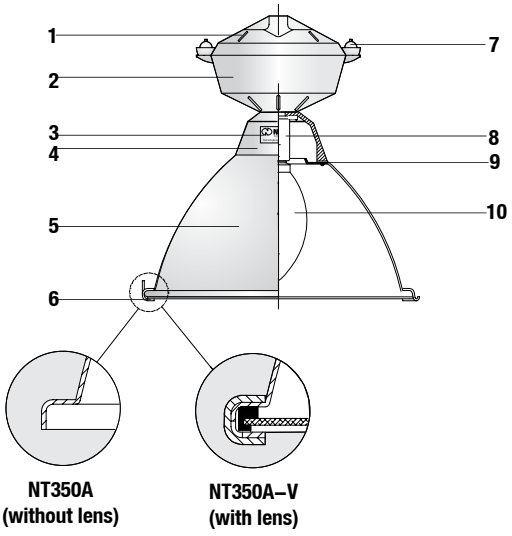
- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For NPT threads, replace the letter **B** with the letter **N** in the 7th position; example: NT350A**N**3H25.



Technical Features



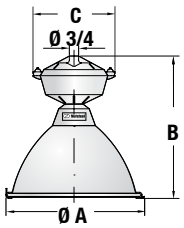
1– Ballast cover
2– Ballast housing
3– Name plate
4– Socket holder in cast aluminum
5– Spun aluminum reflector
6– Tempered glass lens
7– Cover latch
8– Reinforced porcelain socket.
9– Sealing gasket
10– Lamp (supplied upon request)

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Nutsteel® NT350A Series Luminaires

Industrial. Mercury Vapor, High Pressure Sodium, Metal Halide



Lamp Type and Wattage				Dimensions mm (in)					
Mercury Vapor	High Pressure Sodium	Metal Halide	Socket	Ø A	B	C	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Without Glass									
125	—	—	E27	450 (17.72)	505 (19.88)	330 (12.99)	5.55 (12.24)	130.8 (288.36)	**NT350AB3H12**
250	—	—	E40	450 (17.72)	505 (19.88)	330 (12.99)	6.38 (14.07)	130.8 (288.36)	**NT350AB3H25**
—	150	—	E40	450 (17.72)	505 (19.88)	330 (12.99)	6.50 (14.33)	130.8 (288.36)	**NT350AB3S15**
—	250	—	E40	450 (17.72)	505 (19.88)	330 (12.99)	7.70 (16.98)	130.8 (288.36)	**NT350AB3S25**
—	—	150	E27	450 (17.72)	505 (19.88)	330 (12.99)	6.50 (14.33)	130.8 (288.36)	**NT350AB3M15**
—	—	250	E40	450 (17.72)	505 (19.88)	330 (12.99)	7.70 (16.98)	130.8 (288.36)	**NT350AB3M25**
125	—	150	E27	450 (17.72)	505 (19.88)	330 (12.99)	4.10 (9.04)	130.8 (288.36)	**NT350AB3000M01** ②
250	250	250	E40	450 (17.72)	505 (19.88)	330 (12.99)	4.10 (9.04)	130.8 (288.36)	**NT350AB3000** ②
With Glass									
125	—	—	E27	450 (17.72)	520 (20.47)	330 (12.99)	7.15 (15.76)	134.4 (296.30)	**NT350AB3H12V**
250	—	—	E40	450 (17.72)	520 (20.47)	330 (12.99)	7.98 (17.59)	134.4 (296.30)	**NT350AB3H25V**
—	150	—	E40	450 (17.72)	520 (20.47)	330 (12.99)	8.10 (17.86)	134.4 (296.30)	**NT350AB3S15V**
—	250	—	E40	450 (17.72)	520 (20.47)	330 (12.99)	9.30 (20.50)	134.4 (296.30)	**NT350AB3S25V**
—	—	150	E27	450 (17.72)	520 (20.47)	330 (12.99)	8.10 (17.86)	134.4 (296.30)	**NT350AB3M15V**
—	—	250	E40	450 (17.72)	520 (20.47)	330 (12.99)	9.30 (20.50)	134.4 (296.30)	**NT350AB3M25V**
125	—	150	E27	450 (17.72)	520 (20.47)	330 (12.99)	5.70 (12.57)	134.4 (296.30)	**NT350AB3000VM01** ②
250	250	250	E40	450 (17.72)	520 (20.47)	330 (12.99)	5.70 (12.57)	134.4 (296.30)	**NT350AB3000V** ②
Without Glass									
400	—	—	E40	525 (20.67)	545 (21.46)	330 (12.99)	7.34 (16.18)	186.7 (411.60)	**NT350AB5H40**
—	400	—	E40	525 (20.67)	545 (21.46)	330 (12.99)	8.74 (19.27)	186.7 (411.60)	**NT350AB5S40**
—	—	400	E40	525 (20.67)	545 (21.46)	330 (12.99)	8.74 (19.27)	186.7 (411.60)	**NT350AB5M40**
400	400	400	E40	525 (20.67)	545 (21.46)	330 (12.99)	4.24 (9.35)	186.7 (411.60)	**NT350AB5000** ②
With Glass									
400	—	—	E40	525 (20.67)	560 (22.05)	330 (12.99)	9.64 (21.25)	191.5 (422.19)	**NT350AB5H40V**
—	400	—	E40	525 (20.67)	560 (22.05)	330 (12.99)	11.04 (24.34)	191.5 (422.19)	**NT350AB5S40V**
—	—	400	E40	525 (20.67)	560 (22.05)	330 (12.99)	11.04 (24.34)	191.5 (422.19)	**NT350AB5M40V**
400	400	400	E40	525 (20.67)	560 (22.05)	330 (12.99)	6.54 (14.42)	191.5 (422.19)	**NT350AB5000V** ②

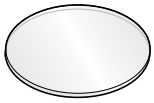
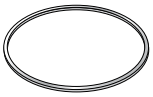
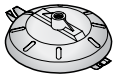
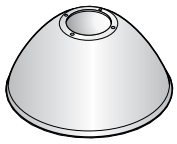
① *For NPT threads, replace the letter **B** with the letter **N** in the 7th position; example: NT350A**N**3H25.*
② *Luminaire without ballast.*

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Nutsteel® NT350A Series Luminaires

Industrial. Mercury Vapor, High Pressure Sodium, Metal Halide

Accessories and Replacement Parts

	Description	Luminaire Type	Catalog Number
	Flat Tempered Glass	NT350A-3-V	**NXVPT353**
		NT350A-5-V	**NXVPT355**
	Sealing Gasket	NT350A-3-V	**NPJP3SBR**
		NT350A-5-V	**NPJP5SBR**
	Aluminium Ring	NT350A-3-V	**NXARO353**
		NT350A-5-V	**NXARO355**
	Ballast Housing Cover	NT350A-3 NT350A-3-V NT350A-5 NT350A-5-V	**NFTAM35**
	Ballast Housing	NT350A-3 NT350A-3-V NT350A-5 NT350A-5-V	**NFCOR35**
	Aluminium Reflector	NT350A-3 NT350A-3-V	**NXREF353**
		NT350A-5 NT350A-5-V	**NXREF355**

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Nutsteel® NT350A Series Luminaires

Industrial. Mercury Vapor, High Pressure Sodium, Metal Halide

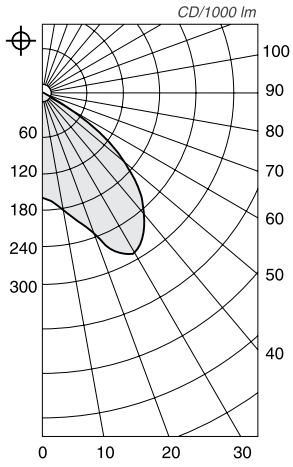
Photometric Data

- **NT350A**
- **250W Mercury vapor lamp**
- **Total luminous flux = 14,000 lm**

Polar Distribution Curves

Angle	0–90
0	160
5	164
10	179
15	200
20	231
25	267
30	278
35	258
40	239
45	207
50	160
55	106
60	56
65	24
70	11
75	4
80	1
85	0

Type of distribution - CIE



Utilization Factors

% Ceiling	70				50				30		
% Wall	70	50	30	10	50	30	10	50	30	10	0
% Floor	10	10			10		0				
K	U: Utilization Factor										
0.60	0.42	0.35	0.31	0.27	0.35	0.30	0.27	0.34	0.30	0.27	0.26
0.80	0.49	0.43	0.38	0.35	0.42	0.38	0.35	0.41	0.37	0.35	0.33
1.00	0.54	0.49	0.44	0.41	0.48	0.44	0.41	0.47	0.43	0.41	0.39
1.25	0.59	0.54	0.50	0.47	0.53	0.49	0.46	0.51	0.49	0.46	0.45
1.50	0.61	0.57	0.54	0.51	0.56	0.53	0.50	0.55	0.52	0.50	0.49
2.00	0.65	0.62	0.59	0.57	0.61	0.58	0.56	0.59	0.57	0.56	0.54
2.50	0.67	0.65	0.62	0.60	0.63	0.61	0.59	0.62	0.60	0.59	0.57
3.00	0.69	0.66	0.64	0.63	0.65	0.63	0.62	0.64	0.62	0.61	0.59
4.00	0.70	0.68	0.67	0.65	0.67	0.65	0.64	0.66	0.64	0.63	0.62
5.00	0.71	0.69	0.68	0.67	0.68	0.67	0.65	0.66	0.65	0.65	0.63

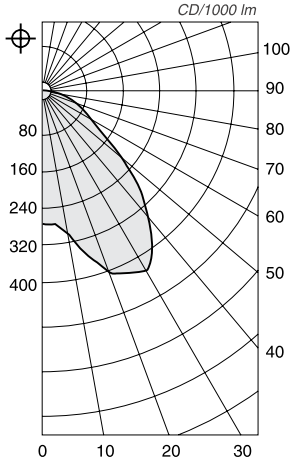
Semi-direct

- **NT350A**
- **400W Mercury vapor lamp**
- **Total luminous flux = 22,000 lm**

Polar Distribution Curves

Angle	0–90
0	289
5	292
10	320
15	377
20	424
25	435
30	447
35	409
40	344
45	270
50	203
55	142
60	96
65	71
70	45
75	21
80	7
85	0

Type of distribution - CIE



Utilization Factors

% Ceiling	70				50				30		
% Wall	70	50	30	10	50	30	10	50	30	10	0
% Floor	10	10			10		0				
K	U: Utilization Factor										
0.60	0.53	0.45	0.39	0.35	0.44	0.39	0.35	0.43	0.38	0.35	0.34
0.80	0.60	0.52	0.47	0.43	0.51	0.47	0.43	0.50	0.46	0.43	0.41
1.00	0.66	0.59	0.54	0.50	0.57	0.53	0.50	0.56	0.52	0.49	0.48
1.25	0.70	0.64	0.60	0.56	0.63	0.59	0.56	0.62	0.58	0.55	0.53
1.50	0.74	0.68	0.64	0.60	0.67	0.63	0.60	0.65	0.62	0.59	0.58
2.00	0.78	0.74	0.70	0.67	0.72	0.69	0.67	0.71	0.68	0.66	0.64
2.50	0.81	0.77	0.74	0.72	0.76	0.73	0.71	0.74	0.72	0.70	0.68
3.00	0.82	0.80	0.77	0.75	0.78	0.76	0.74	0.76	0.75	0.73	0.71
4.00	0.84	0.82	0.80	0.78	0.80	0.79	0.77	0.79	0.77	0.76	0.74
5.00	0.85	0.84	0.82	0.80	0.82	0.80	0.79	0.80	0.79	0.78	0.76

Semi-direct

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Nutsteel® NT350A Series Luminaires

Industrial. Mercury Vapor, High Pressure Sodium, Metal Halide

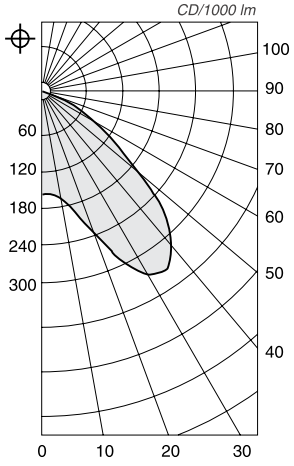
Photometric Data

- **NT350A**
- **250W opaline ellipsoid sodium vapor lamp**
- **Total luminous flux = 25,000 lm**

Polar Distribution Curves

Angle	0–90
0	167
5	166
10	181
15	204
20	248
25	305
30	341
35	350
40	314
45	274
50	200
55	134
60	70
65	28
70	10
75	4
80	2
85	0

Type of distribution - CIE



Utilization Factors

% Ceiling	70				50				30		
% Wall	70	50	30	10	50	30	10	50	30	10	0
% Floor	10	10			10		0				
K	U: Utilization Factor										
0.60	0.45	0.37	0.32	0.28	0.36	0.32	0.28	0.36	0.31	0.28	0.27
0.80	0.53	0.46	0.41	0.37	0.45	0.40	0.37	0.44	0.40	0.37	0.35
1.00	0.58	0.52	0.47	0.44	0.51	0.47	0.43	0.50	0.46	0.43	0.42
1.25	0.63	0.57	0.53	0.50	0.56	0.52	0.50	0.55	0.52	0.49	0.48
1.50	0.66	0.61	0.57	0.54	0.60	0.57	0.54	0.59	0.56	0.53	0.52
2.00	0.70	0.66	0.63	0.61	0.65	0.62	0.60	0.64	0.61	0.59	0.58
2.50	0.72	0.69	0.67	0.65	0.68	0.66	0.64	0.67	0.65	0.63	0.61
3.00	0.74	0.71	0.69	0.67	0.70	0.68	0.66	0.68	0.67	0.65	0.64
4.00	0.75	0.73	0.71	0.70	0.72	0.70	0.69	0.70	0.69	0.68	0.66
5.00	0.76	0.74	0.73	0.71	0.73	0.71	0.70	0.71	0.70	0.69	0.67

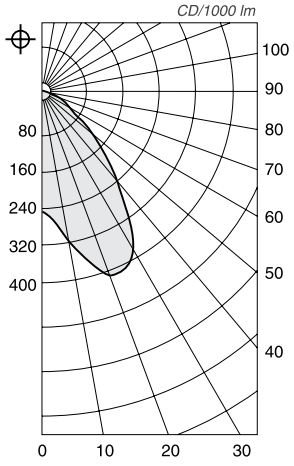
Semi-direct

- **NT350A**
- **400W opaline ellipsoid sodium vapor lamp**
- **Total luminous flux = 48.000 lm**

Polar Distribution Curves

Angle	0–90
0	252
5	267
10	313
15	365
20	413
25	413
30	390
35	317
40	235
45	188
50	133
55	102
60	73
65	48
70	27
75	13
80	4
85	0

Type of distribution - CIE



Utilization Factors

% Ceiling	70				50				30		
% Wall	70	50	30	10	50	30	10	50	30	10	0
% Floor	10	10			10		0				
K	U: Utilization Factor										
0.60	0.54	0.46	0.41	0.38	0.45	0.41	0.38	0.45	0.41	0.38	0.36
0.80	0.60	0.54	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.43
1.00	0.66	0.59	0.55	0.51	0.58	0.54	0.51	0.57	0.54	0.51	0.49
1.25	0.70	0.64	0.60	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.55
1.50	0.73	0.68	0.64	0.61	0.67	0.63	0.61	0.65	0.62	0.60	0.58
2.00	0.77	0.73	0.70	0.67	0.72	0.69	0.67	0.70	0.68	0.66	0.64
2.50	0.79	0.76	0.74	0.71	0.75	0.72	0.71	0.73	0.72	0.70	0.68
3.00	0.81	0.78	0.76	0.74	0.77	0.75	0.73	0.75	0.74	0.72	0.71
4.00	0.83	0.81	0.79	0.77	0.79	0.78	0.76	0.78	0.76	0.75	0.73
5.00	0.84	0.82	0.80	0.79	0.80	0.79	0.78	0.79	0.78	0.77	0.75

Semi-direct

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Nutsteel® NT350A Series Luminaires

Industrial. Mercury Vapor, High Pressure Sodium, Metal Halide

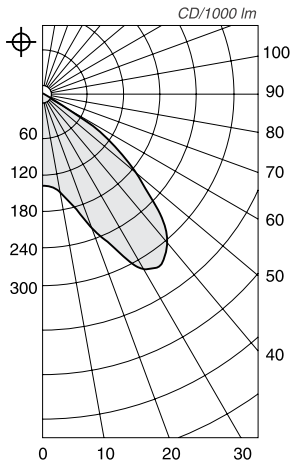
Photometric Data

- **NT350A**
- **250W opaline ellipsoid metal halide lamp**
- **Total luminous flux = 17,000 lm**

Polar Distribution Curves

Angle	0–90
0	146
5	144
10	152
15	178
20	218
25	268
30	317
35	327
40	304
45	261
50	188
55	122
60	62
65	24
70	10
75	4
80	2
85	0

Type of distribution - CIE



Utilization Factors

% Ceiling	70				50				30		
% Wall	70	50	30	10	50	30	10	50	30	10	0
% Floor	10	10			10		0				
K	U: Utilization Factor										
0.60	0.44	0.36	0.31	0.28	0.35	0.31	0.27	0.35	0.31	0.27	0.26
0.80	0.52	0.45	0.40	0.36	0.44	0.39	0.36	0.43	0.39	0.36	0.34
1.00	0.57	0.51	0.46	0.43	0.50	0.46	0.42	0.49	0.45	0.42	0.41
1.25	0.62	0.56	0.52	0.49	0.55	0.51	0.49	0.54	0.51	0.48	0.47
1.50	0.65	0.60	0.56	0.53	0.59	0.56	0.53	0.58	0.55	0.52	0.51
2.00	0.69	0.65	0.62	0.60	0.64	0.61	0.59	0.63	0.60	0.58	0.57
2.50	0.71	0.68	0.66	0.63	0.67	0.64	0.63	0.65	0.64	0.62	0.60
3.00	0.72	0.70	0.68	0.66	0.69	0.67	0.65	0.67	0.66	0.64	0.63
4.00	0.74	0.72	0.70	0.69	0.70	0.69	0.68	0.69	0.68	0.67	0.65
5.00	0.75	0.73	0.71	0.70	0.72	0.70	0.69	0.70	0.69	0.68	0.66

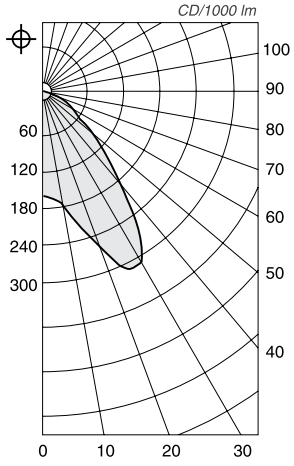
Semi-direct

- **NT350A**
- **400W opaline ellipsoid metal halide lamp**
- **Total luminous flux = 32,000 lm**

Polar Distribution Curves

Angle	0–90
0	159
5	163
10	177
15	210
20	254
25	303
30	302
35	257
40	197
45	139
50	103
55	68
60	46
65	28
70	16
75	8
80	3
85	0

Type of distribution - CIE



Utilization Factors

% Ceiling	70				50				30		
% Wall	70	50	30	10	50	30	10	50	30	10	0
% Floor	10	10			10		0				
K	U: Utilization Factor										
0.60	0.47	0.40	0.36	0.33	0.40	0.36	0.33	0.39	0.36	0.33	0.32
0.80	0.53	0.47	0.43	0.40	0.46	0.42	0.39	0.45	0.42	0.39	0.38
1.00	0.57	0.52	0.48	0.45	0.51	0.47	0.45	0.50	0.47	0.44	0.43
1.25	0.61	0.56	0.52	0.50	0.55	0.52	0.49	0.54	0.51	0.49	0.48
1.50	0.63	0.59	0.56	0.53	0.58	0.55	0.53	0.57	0.54	0.52	0.51
2.00	0.67	0.63	0.61	0.59	0.62	0.60	0.58	0.61	0.59	0.57	0.56
2.50	0.69	0.66	0.64	0.62	0.65	0.63	0.61	0.64	0.62	0.61	0.59
3.00	0.70	0.68	0.66	0.64	0.66	0.65	0.64	0.65	0.64	0.63	0.61
4.00	0.71	0.70	0.68	0.67	0.68	0.67	0.66	0.67	0.66	0.65	0.63
5.00	0.72	0.71	0.69	0.68	0.69	0.68	0.67	0.68	0.67	0.66	0.65

Semi-direct

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Nutsteel® NT350A–Y Series Luminaires

Industrial. Weatherproof. Watertight. Mercury Vapor, High Pressure Sodium, Metal Halide

NBR IEC:
IP65

Applications

- For the illumination of industrial locations such as:
  - — Warehouses
  - — Stock rooms
  - — Storage facilities
  - — Garages
  - — Outdoor locations

Features

- Comes assembled with ballast.
- High power factor: 220 Volt, 60 Hz.
- Available with lens.
- Lamp not supplied.
- BSP threads are standard, NPT threads available.

Standard Material

- Ballast housing and socket holder: cast aluminum alloy
- Reflector: sheet aluminum
- Lens: flat tempered glass
- Lens ring: aluminum
- Sealing gasket: SBR Rubber
- Socket: reinforced porcelain
- Screws, nuts and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

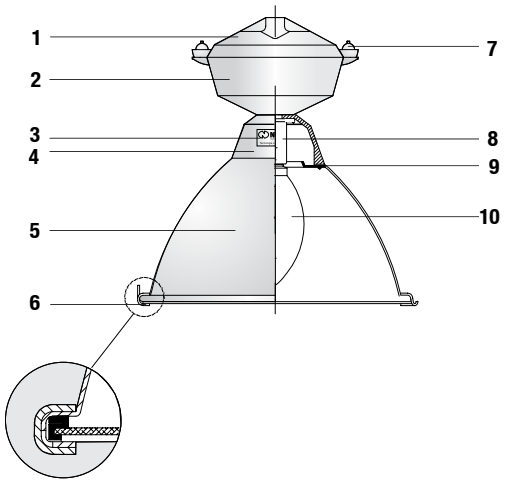
- For NPT threads, replace the letter **B** with the letter **N** in the 7th position; example: NT350A**N**3H25Y.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection: IP65
- Other standards: ABNT NBR IEC 60529 (IP)



Technical Features



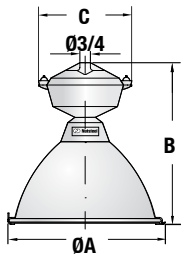
1– Ballast cover	**6– Tempered glass viewer.**
2– Ballast housing	**7– Cover latch**
3– Name plate	**8– Reinforced porcelain socket.**
4– Socket holder in cast aluminum	**9– Sealing gasket**
5– Spun aluminum reflector	**10– Lamp (supplied upon request)**

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Nutsteel® NT350A–Y Series Luminaires

Industrial. Weatherproof. Watertight. Mercury Vapor, High Pressure Sodium, Metal Halide

NBR IEC:
IP65.0



Lamp Type and Wattage				Dimensions mm (in)					
Mercury Vapor	High Pressure Sodium	Metal Halide	Socket	Ø A	B	C	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
125	—	—	E27	450 (17.72)	520 (20.47)	330 (12.99)	5.55 (12.24)	130.80 (288.36)	**NT350AB3H12Y**
250	—	—	E40	450 (17.72)	520 (20.47)	330 (12.99)	7.98 (17.59)	134.40 (296.30)	**NT350AB3H25Y**
—	250	—	E40	450 (17.72)	520 (20.47)	330 (12.99)	10.00 (22.05)	134.40 (296.30)	**NT350AB3S25Y**
—	150	—	E40	450 (17.72)	520 (20.47)	330 (12.99)	6.50 (14.33)	130.80 (288.36)	**NT350AB3S15Y**
—	—	250	E40	450 (17.72)	520 (20.47)	330 (12.99)	10.00 (22.05)	134.40 (296.30)	**NT350AB3M25Y**
—	—	150	E27	450 (17.72)	520 (20.47)	330 (12.99)	6.50 (14.33)	130.80 (288.36)	**NT350AB3M15Y**
125	—	150	E27	450 (17.72)	520 (20.47)	330 (12.99)	4.10 (9.04)	130.80 (288.36)	**NT350AB3000YM01** ②
250	250	250	E40	450 (17.72)	520 (20.47)	330 (12.99)	5.70 (12.57)	134.40 (296.30)	**NT350AB3000Y** ②
400	—	—	E40	525 (20.67)	560 (22.05)	330 (12.99)	10.55 (23.26)	191.50 (422.19)	**NT350AB5H40Y**
—	400	—	E40	525 (20.67)	560 (22.05)	330 (12.99)	11.97 (26.39)	191.50 (422.19)	**NT350AB5S40Y**
—	—	400	E40	525 (20.67)	560 (22.05)	330 (12.99)	11.97 (26.39)	191.50 (422.19)	**NT350AB5M40Y**
400	400	400	E40	525 (20.67)	560 (22.05)	330 (12.99)	6.54 (14.42)	191.50 (422.19)	**NT350AB5000Y** ②

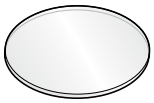
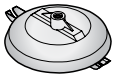
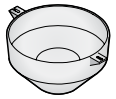
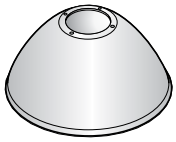
① *For NPT threads, replace the letter **B** with the letter **N** in the 7th position; example: NT350A**N**3H25.*
② *Luminaire without ballast.*

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Nutsteel® NT350A–Y Series Luminaires

Industrial. Weatherproof. Watertight. Mercury Vapor, High Pressure Sodium, Metal Halide

Accessories and Replacement Parts

	Description	Luminiare Type	Catalog Number
	Flat Tempered Glass	NT350A-3-Y	**NXVPT353**
		NT350A-5-Y	**NXVPT355**
	Sealing Gasket	NT350A-3-Y	**NPJP3SBR**
		NT350A-5-Y	**NPJP5SBR**
	Aluminium Ring	NT350A-3-Y	**NXARO353**
		NT350A-5-Y	**NXARO355**
	Housing Cover	NT350A-3-Y	**NFTAM35I**
		NT350A-5-Y	
	Ballast Housing	NT350A-3-Y	**NFCOR35I**
		NT350A-5-Y	
	Aluminium Reflector	NT350A-3-Y	**NXREF353**
		NT350A-5-Y	**NXREF355**

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A.T.X.® FN Series Heavy Duty Nonmetallic Fluorescent Luminaires

Standard and Emergency Back-Up. Zone 2 - 21 and 22

ATEX/IEC:
Zone 2 - 21 and 22
Ⓔx II 3 GD and Ⓔx II 2 D
IP66/67 - IK10

NBR IEC — 18 W, 36 W, 58 W:
Zone 2 - 21 and 22
Ex nR IIC Gc
Ex tb IIIC Db
IP66/67

Applications

- Can be installed in hazardous areas designated as Zone 2 – 21 and 22.
- For use in locations where a high degree of corrosion resistance is required.
- For indoor/outdoor use where protection against dirt, water and moisture is necessary.
- Typical applications include oil refineries, petrochemical facilities, pulp and paper mills, food processing plants, warehouses, underground tunnels and general manufacturing facilities.

Features

- Corrosion-resistant fiberglass reinforced polyester body and hinged polycarbonate lens.
- High impact resistance housing (20 Joules - IK10) from (-40 °C to +55 °C (-40 °F to +131 °F) ambient temperature and wind profile for use in extreme offshore and onshore environments.
- Latch assembly and elastomer gasket seals against water and dust ingress, IP66/67.
- Easily accessed for maintenance using Allen key or straight blade screw driver.
- Central opening with unique patented release system to prevent damage.
- Hinged parabolic reflector for high lumen output efficiency.
- Vibration resistant spring loaded lampholders for Bi-pin (G13) or mono-pin (Fa6) ① versions.
- ATEX/IECEx 18 W, 36 W and 58 W version; NBR IEC 58 W version:
  - — Electronic multi-tap ballast 110 to 254 Vac/Vdc +/- 10% 50/60 Hz, for global applications. High power factor electronic ballast (>0.95). EOL (End Of Life) protection in accordance to the latest EN/IEC 60079-7 standard.
- Also available with electronic ballast 220/240 Vac/Vdc +/- 10% 50/60 Hz. High power factor electronic ballast (>0.95). EOL.
- NBR IEC 18 W and 36 W version: electronic ballast 127 or 220 Vac, 50/60Hz, with high power factor (0.98).
- Available in 3 hours emergency version, including multi-tap ballast with built-in monthly self test. Test results through multi-color LED display.

Standard Material

- Housing: fiberglass reinforced polyester (FRP)
- Lens: polycarbonate
- Internal reflector: highly reflective white polycarbonate
- Gasket: elastomer
- Mounting accessories available in different materials such as gray painted aluminum, zinc plated steel, galvanized steel or 316 stainless steel

Options

- Silicone coating for added protection in H_2S hydrogen sulfide environments. Add suffix -**C**.
- 3 hours emergency version. Add suffix -**E**.
- Without safety switch. Add suffix -**N**.
- 4 entries. Add suffix -**X**.

ATEX/IEC Certifications and Compliances

- Certification Type: FLn



2 x 58 W



2 x 36 W



2 x 18 W

  - — Gas: Zone 2
    - – Conforming to ATEX 94/9/CE: CE Ⓔx II 3 G
    - – ATEX/IEC Protection: Ex nR II or Ex nA II
    - – T Rating: T6 to T4
  - — Dust: Zones 21 and 22
    - – Conforming to ATEX 94/9/CE: CE Ⓔx II 2 D, CE Ⓔx II 3 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T75 °C (T167 °F)
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- CE Declaration of Conformity: 50212/50225
- ATEX Certificate: LCIE 03 ATEX 6072/6166
- IECEx Certificate: IECEx LCI 04.0021
- Other Certifications: GOST, Marine Listed UL 1598A
- Index of Protection (solid and liquid): IP66/67
- Impact Resistance (shock): IK10
- Ex Standards: EN/IEC 60079-15; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1; 60598-2-22
- EMC Standards: EN/IEC 55015; 61547
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances ②

- Certification Type: FLn
  - — Gas: Zone 2
    - – IEC Marking: Ex nR IIC Gc
    - – T Rating T4
  - — Dust: Zones 21 and 22
    - – IEC Marking: Ex tb IIIC Db
    - – Surface temperature: +135 °C (+275 °F)
- Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 11.0815
- Ingress Protection (solid and liquid): IP66/67
- Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-15, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

① Mono-pin (Fa6) is NOT certified for use in NBR IEC governed locations.
② 55 W, 80 W and compact lamps are NOT certified for use in NBR IEC governed locations.

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A.T.X.® FN Series Heavy Duty Nonmetallic Fluorescent Luminaires

Standard and Emergency Back-Up. Zone 2 - 21 and 22

ATEX/IEC:
Zone 2 - 21 and 22
Ⓔx II 3 GD and Ⓔx II 2 D
IP66/67 - IK10

NBR IEC — 18 W, 36 W, 58 W:
Zone 2 - 21 and 22
Ex nR IIC Gc
Ex tb IIIC Db
IP66/67

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — AETX/IECEx Certified FN Non-Metallic Fluorescent Lighting Fixtures

FN | **B** | **1** | **18** | **BU** | **P** | **A** | **C**

- **FN** — Series: FN - FN Series, Zone 2 – 21 and 22, ATEX/IEC Certified
- **B** — Lamp Type: B - Bi-pin (G13) ①; C - PL Compact Lamps (2G11) ②
- **1** — Number of Lamps: 1 - Single; 2 - Double; 3 - Three Lamps
- **18** — Wattage: 18 - 18 Watt; 36 - 36 Watt; 58 - 58 Watt; 55 - 55 Watt ⑤; 80 - 80 Watt ⑤
- **BU** — Voltage: BU - 110 to 254 Vac/Vdc, 50/60 Hz; BK - 220 to 240 Vac/Vdc, 50/60 Hz
- **P** — Mounting Version: P - Pole Mount ①; S - Surface/Suspension Mount Standard Wiring; T - Surface/Suspension Mount Through Wiring; L - Surface/Suspension Mount Dual Loop in/out Through Wiring (single phase)
- **A** — Cable Type: A - Armored M20; N - Unarmored M25; U - Unarmored M20
- **C** — Options: *(Options must be listed alphabetically)* C - Silicon Coating for Diffuser; E - 3H Emergency (combined) - Battery 6 V - 4 Ah; N - No Switch ③; X - 4 Entries ④

Catalog Numbering Guide — AETX/IECEx Certified FN Non-Metallic Fluorescent Lighting Fixtures

NFN | **B** | **1** | **18** | **BU** | **P** | **A** | **C**

- **NFN** — Series: N FN - FN Series, Zone 2 – 21 and 22, NBR IEC Certified
- **B** — Lamp Type: B - Bi-pin (G13) ①
- **1** — Number of Lamps: 1 - Single; 2 - Double; 3 - Three Lamps
- **18** — Wattage: 18 - 18 Watt; 36 - 36 Watt; 58 - 58 Watt
- **BU** — Voltage: BU - 127 Vac, 50/60 Hz; BK - 220 Vac, 50/60 Hz
- **P** — Mounting Version: P - Pole Mount ①; S - Surface/Suspension Mount Standard Wiring; T - Surface/Suspension Mount Through Wiring; L - Surface/Suspension Mount Dual Loop in/out Through Wiring (single phase)
- **A** — Cable Type: A - Armored M20; N - Unarmored M25; U - Unarmored M20
- **C** — Options: *(Options must be listed alphabetically)* C - Silicon Coating for Diffuser; E - 3H Emergency (combined) - Battery 6 V - 4 Ah; N - No Switch ③; X - 4 Entries ④

① Mono-pin (Fa6) is NOT certified for use in NBR IEC governed locations.
② PL compact lamps are only available in the 55 W and 80 W standard versions. These are not certified for use in NBR IEC governed locations.
③ Only for standard versions.
④ Only for S, T and L mounting versions.
⑤ 55 and 80 Watt PL compact lamp fixtures are not certified for use in NBR IEC governed locations.
⑥ Only 2 x 18 W and 2 x 36 W with M25 entry versions.

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A.T.X.® FN Series Heavy Duty Nonmetallic Fluorescent Luminaires

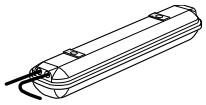
Standard and Emergency Back-Up. Zone 2 - 21 and 22

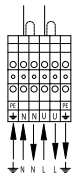
ATEX/IEC:
Zone 2 - 21 and 22
Ⓔx II 3 GD and Ⓔx II 2 D
IP66/67 - IK10

NBR IEC — 18 W, 36 W, 58 W:
Zone 2 - 21 and 22
Ex nR IIC Gc
Ex tb IIIC Db
IP66/67

Standard Version

Surface/Suspension Mounting and Standard Wiring Version
Connection via 1 x 6 terminals.
Capacity (flexible/solid): 4 mm²/6 mm² (0.006 in²/0.009 in²).





Unarmored Version - Bi-pin (G13)
Three M25 threaded entries, two at one end and one at opposite end, supplied with one M25 polyamide cable gland — 8 to 18.5 mm (0.31 to 0.73") diameter — and two M25 polyamide blanking plugs.

Number of Lamps	Wattage (W)	Lamp Type	Weight kg (lbs)	Volume dm³ (in³)	Voltage (V)	Catalog Number ①②③④ ATEX/IEC	Voltage (V)	NBR IEC
2	18	G13	5.5 (12.13)	32.3 (1971.07)	220/240	**FNB218BKSNN**	220	**NFNB218BKSNN**
2	18	G13	5.5 (12.13)	32.3 (1971.07)	110/254	**FNB218BUSNN**	127	**NFNB218BUSNN**
2	36	G13	7.9 (17.42)	54.2 (3307.49)	220/240	**FNB236BKSNN**	220	**NFNB236BKSNN**
2	36	G13	7.9 (17.42)	54.2 (3307.49)	110/254	**FNB236BUSNN**	127	**NFNB236BUSNN**
2	58	G13	9.0 (19.84)	65.0 (3966.54)	220/240	**FNB258BKSNN**	220/240	**NFNB258BKSNN**
2	58	G13	11.0 (24.25)	65.0 (3966.54)	110/254	**FNB258BUSNN**	110/254	**NFNB258BUSNN**

Armored Version - Bi-pin (G13)
Two M20 threaded entries with brass earth continuity plate at one end and one M20 plugged clearance entry, supplied with two M20 polyamide plugs.

Number of Lamps	Wattage (W)	Lamp Type	Weight kg (lbs)	Volume dm³ (in³)	Voltage (V)	Catalog Number ①②③④ ATEX/IEC	Voltage (V)	NBR IEC
2	18	G13	5.5 (12.13)	32.3 (1971.07)	220/240	**FNB218BKSAN**	220	**NFNB218BKSAN**
2	18	G13	5.5 (12.13)	32.3 (1971.07)	110/254	**FNB218BUSAN**	127	**NFNB218BUSAN**
2	36	G13	7.9 (17.42)	54.2 (3307.49)	220/240	**FNB236BKSAN**	220	**NFNB236BKSAN**
2	36	G13	7.9 (17.42)	54.2 (3307.49)	110/254	**FNB236BUSAN**	127	**NFNB236BUSAN**
2	58	G13	9.0 (19.84)	65.0 (3966.54)	220/240	**FNB258BKSAN**	220/240	**NFNB258BKSAN**
2	58	G13	11.0 (24.25)	65.0 (3966.54)	110/254	**FNB258BUSAN**	110/254	**NFNB258BUSAN**

*① For silicon coating for diffuser, add suffix -**C** at the end of the catalog number.*
*② For 3H emergency (combined) - battery V - 4 Ah, add suffix -**E** at the end of the catalog number.*
*③ For no switch, add suffix -**N** at the end of the catalog number.*
*④ For 4 entries, add suffix -**X** at the end of the catalog number.*

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A.T.X.® FN Series Heavy Duty Nonmetallic Fluorescent Luminaires

Standard and Emergency Back-Up. Zone 2 - 21 and 22

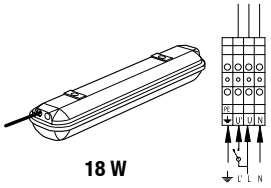
ATEX/IEC:
Zone 2 - 21 and 22
Ⓔx II 3 GD and Ⓔx II 2 D
IP66/67 - IK10

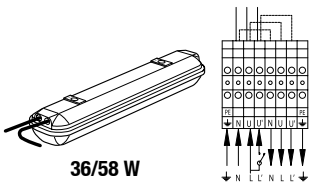
NBR IEC — 18 W, 36 W, 58 W:
Zone 2 - 21 and 22
Ex nR IIC Gc
Ex tb IIIC Db
IP66/67

Emergency Version

Surface/Suspension Mounting and Standard Wiring
Connection via 1 x 4 terminals for 18 W version.
Connection via 1 x 8 terminals for 36 W and 58 W versions.
Capacity (flexible/solid): 4 mm^2/6 mm^2 (0.006 in^2/0.009 in^2).

Unarmored Version - Bi-pin (G13)
Three M25 entries, two at one end and one at opposite end, supplied with one M25 polyamide cable gland — 8 to 18.5 mm (0.31 to 0.73") diameter —and two M25 polyamide blanking plugs.





								Catalog Number ①②③④		
Number of Lamps	Wattage (W)	Lamp Type	Weight kg (lbs)	Volume dm^3 (in^3)	Duration (Hours)	Battery Capacity	Voltage (V)	ATEX/IEC	Voltage (V)	NBR IEC
2	18	G13	7.3 (16.09)	32.3 (1971.07)	3 H	4 Ah	110/254	**FNB218BUSNEN**	127	**NFNB218BUSNEN**
2	36	G13	9.6 (21.16)	54.2 (3307.49)	3 H	4 Ah	110/254	**FNB236BUSNEN**	127	**NFNB236BUSNEN**
2	58	G13	10.7 (23.59)	65.0 (3966.54)	3 H	4 Ah	110/254	**FNB258BUSNEN**	110/254	**NFNB258BUSNEN**

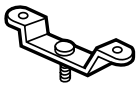
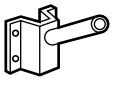
Armored Version - Bi-pin (G13)
Two M20 threaded entries with brass earth continuity plate at one end and one M20 plugged clearance entry, supplied with two M20 polyamide plugs.

								Catalog Number ①②③④		
Number of Lamps	Wattage (W)	Lamp Type	Weight kg (lbs)	Volume dm^3 (in^3)	Duration (Hours)	Battery Capacity	Voltage (V)	ATEX/IEC	Voltage (V)	NBR IEC
2	18	G13	7.3 (16.09)	32.3 (1971.07)	3 H	4 Ah	110/254	**FNB218BUSAEN**	127	**NFNB218BUSAEN**
2	36	G13	9.6 (21.16)	54.2 (3307.49)	3 H	4 Ah	110/254	**FNB236BUSAEN**	127	**NFNB236BUSAEN**
2	58	G13	10.7 (23.59)	65.0 (3966.54)	3 H	4 Ah	110/254	**FNB258BUSAEN**	110/254	**NFNB258BUSAEN**

*① For silicon coating for diffuser, add suffix -**C** at the end of the catalog number.*
*② For 3H emergency (combined) - battery V - 4 Ah, add suffix -**E** at the end of the catalog number.*
*③ For no switch, add suffix -**N** at the end of the catalog number.*
*④ For 4 entries, add suffix -**X** at the end of the catalog number.*

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Accessories

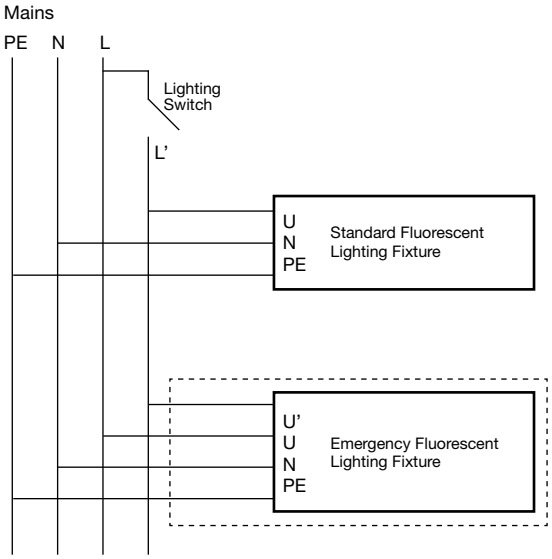
	Description	Catalog Number ATEX/IEC	Catalog Number NBR IEC
Fixing Brackets			
	Set of two brackets for surface installation		
	Zinc plated steel	**FEFBZ**	**NFEFBZ**
	316 stainless steel	**FEFBS**	**NFEFBS**
Brackets for Surface Mounting			
	Set of two		
	Aluminium (gray painted)	**FESBA**	**NFESBA**
	316 stainless steel	**FESBS**	**NFESBS**
M8 Ring Bolts			
	Set of two		
	Zinc plated steel	**FERBM8Z**	**NFERBM8Z**
Half Clamps Brackets for Pole Mounting			
	Set of two		
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)		
	Zinc plated steel	**FEHC49Z**	**NFEHC49Z**
	316 stainless steel	**FEHC49S**	**NFEHC49S**
	Diameter for 2" pole: 60 mm (2.36 in)		
	Zinc plated steel	**FEHC60Z**	**NFEHC60Z**
	316 stainless steel	**FEHC60S**	**NFEHC60S**
Wall Mounting Adaptor			
	For pole mounting version — Diameter 42 mm (1.65")		
	Galvanized steel	**FEWMG**	**NFEWMG**
Hinged Brackets			
	Set of two brackets for adjusting luminaire		
	Aluminium	**FEHBA**	**NFEHBA**
	316 stainless steel	**FEHBS**	**NFEHBS**

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A.T.X.® FN Series Heavy Duty Nonmetallic Fluorescent Luminaires

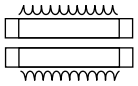
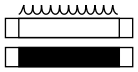
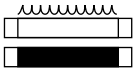
Standard and Emergency Back-Up. Zone 2 - 21 and 22

Wiring Diagram

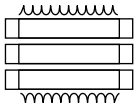
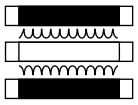
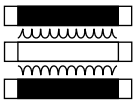


Emergency Function Diagram

Two Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

Three Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

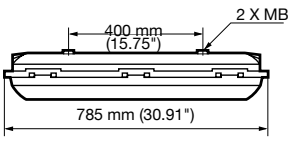
LED Status

Color	Indication	Function
Green	LED glows	Batteries are connected
	LED blinks	Batteries are charged
Red	LED blinks	Batteries are not connected or defect
Yellow	LED blinks	Batteries are charging and discharging during automatic cycle

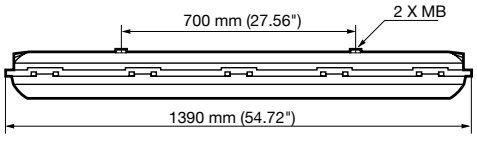
Dimensions in Millimeters (Inches)

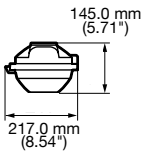
Surface/Suspension Mounting

18 W

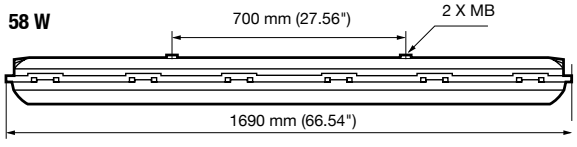


36 W





58 W



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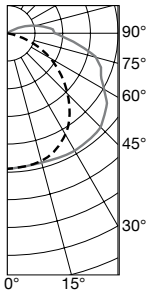
Photometric Data

Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

Longitudinal
Transverse

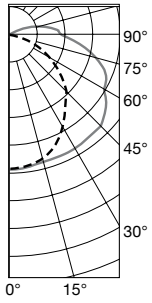
2 x 18 W
Efficiency 85.1%
NF C 71–121: 0.78 H + 0.08 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	195	195
5	195	194
10	192	192
15	187	192
20	181	193
25	173	194
30	163	194
35	152	193
40	138	192
45	124	191
50	108	182
55	91	176
60	73	163
65	55	150
70	37	145



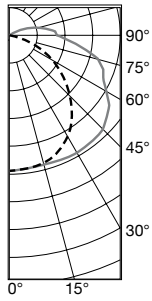
2 x 36 W
Efficiency 80.5%
NF C 71–121: 0.73 H + 0.07 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	185	185
5	185	184
10	182	182
15	178	181
20	172	183
25	164	183
30	154	183
35	143	183
40	131	183
45	117	179
50	102	173
55	85	166
60	68	155
65	51	145
70	35	141



2 x 58 W
Efficiency 76.9%
NF C 71–121: 0.70 H + 0.07 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	173	173
5	172	173
10	170	171
15	166	169
20	161	172
25	154	172
30	145	172
35	135	171
40	123	172
45	111	170
50	97	165
55	82	157
60	66	148
65	50	139
70	34	133



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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. Compact Fluorescent

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

Applications

- Suitable for use in areas where there is the presence of flammable gases.
- Areas of low clearance, with low ceilings or areas in which the weight of the luminaire should be minimal.
- Environments with harsh climatic conditions, mixture of gases, dust, corrosive atmospheres or high temperature.
- Typical applications include:
  - — Chemical plants
  - — Petrochemical plants
  - — Pharmaceuticals facilities
  - — Food processing facilities
  - — Paint and varnish facilities
  - — Flammable material storage facilities
  - — Proximity of valves

Features

- Compact, light weight, low profile design is suited for low mounting heights.
- Locking system ensures the IP66 rating by sealing the screws, mounting hoods and housing.
- Easy access to components, reducing installation time and errors.
- Manufactured in six models:
  - — Ceiling, 30° wall and 90° wall mounts have four threaded entries.
  - — Pendant, 30° stanchion and 90° stanchion have one threaded entry.
- Voltage: 127-277 V, 50/60 Hz; 125 Vcc for 26 W.
- Impact and thermal shock-resistant globe threads directly into ballast housing.
- Ballast with high power factor > 0.99.
- Supplied with ballast assembled.
- Socket model GX24Q for lamp with 4 pins.
- Supplied with guard.
- NPT threads standard. BSP and metric threads available.
- Optional NEREA reflector is lightweight, durable and corrosion-resistant.
- Lamp not supplied.
- Protection Ex nA: devices or circuits that in normal operating conditions, produce no arc, spark or high temperature.
- Protection Ex nR (restriction of entry of gas or vapor): equipment designed and built in such a way that causes no spark or external hot surface, avoiding the risk of explosion when installed in explosive Zone 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.

Standard Material

- Body and guard: copperfree cast aluminum alloy
- Globe: impact and thermal shock-resistant threaded glass
- Socket: plastic
- Gasket: silicone
- Screws and washers: external fixation of AISI 304 stainless steel
- NEREA reflector: anodized aluminum



Pendant Mount



Optional NEREA Reflector

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NN850A**B**2F26N.
- For metric threads, replace the letter N with the letter M in the 7th position; example: NN850A**M**2F26N**.**
- For an option reflector add letter **E** for size 2 to the end of the catalog number; example: NN850AN2F26N**E**.
- For an aluminum reflector add letter **A** or porcelain steel add letter **F** to the end of the catalog number; example: NN850AN2F26NE**A**.
- For shallow reflector add number **1**, for a standard reflector add number **2**, for a deep reflector add number **3** or for an angled reflector add number **4** to the end of the catalog number; example: NN850AN2F26NEA**1**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- INMETRO Certificate: TUV 12.0288-X
- Ex Standards: ABNT NBR IEC 60079-0; 60079-15; 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- Unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA (not supplied).

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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. Compact Fluorescent

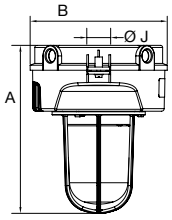
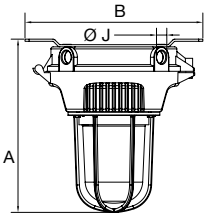
NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

Order using catalog numbering guide below or select catalog number from tables below and on following pages.

Catalog Numbering Guide

NN850 A N 2 F 26 N E A 1

- **NN850** — Series: NN850 - NN850 Series, Zone 2, 21, 22, NBR IEC Certified
- **A** — Mounting: A - Pendant, B - Ceiling, C - 30° Wall, E - 90° Wall, F - 30° Stanchion, H - 90° Stanchion
- **N** — Thread: N - NPT, B - BSP, M - Metric
- **2** — Luminaire Size: 2 - Size 2
- **F** — Lamp Type: F - Compact Fluorescent
- **26** — Wattage: 26 - 26 W, 32 - 32 W, 42 - 42 W
- **N** — N - New Generation
- **E** — Optional Reflector Type: E - For size 2
- **A** — Optional Reflector Material: A- Aluminum, F - Porcelain Steel
- **1** — Optional Reflector Sizes: 1 - Shallow, 2 - Standard, 3 - Deep, 4 - Angle

	Wattage	Socket	T Rating	Threaded Entries Ø J ①	Dimensions mm (in) A	Dimensions mm (in) B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①②
Pendant									
NN850A–N 	26	GX24Q	T6	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NN850AN2F26N**
	32	GX24Q	T6	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NN850AN2F32N**
	42	GX24Q	T6	3/4"	318 (12.52)	259 (10.20)	6.13 (13.51)	21.08 (1286.38)	**NN850AN2F42N**
Ceiling									
NN850B–N 	26	GX24Q	T6	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NN850BN2F26N**
	32	GX24Q	T6	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NN850BN2F32N**
	42	GX24Q	T6	3/4"	332 (13.07)	341 (13.42)	6.30 (13.89)	21.08 (1286.38)	**NN850BN2F42N**

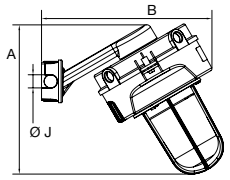
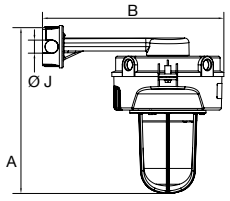
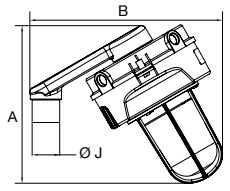
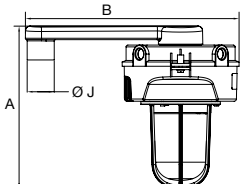
① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NN850A**B**2F26N.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NN850A**M**2F26N.*
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*For shallow reflector add number **1**, for a standard reflector add number **2**, for a deep reflector add number **3** or for an angled reflector add number **4** to the end of the catalog number; example: NN850AN2F26NEA**1**.*

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Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. Compact Fluorescent

NBR IEC:
Zone 2 – 21 and 22
Ex nA nR IIC Gc
Ex tb IIIC Db
IP66

	Wattage	Socket	T Rating	Threaded Entries Ø J ①	Dimensions mm (in) A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①②
30° Wall									
NN850C–N									
	26	GX24Q	T6	3/4”	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NN850CN2F26N**
	32	GX24Q	T6	3/4”	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NN850CN2F32N**
	42	GX24Q	T6	3/4”	343 (13.50)	418 (16.45)	6.85 (15.10)	24.00 (1464.57)	**NN850CN2F42N**
90° Wall									
NN850E–N									
	26	GX24Q	T6	3/4”	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NN850EN2F26N**
	32	GX24Q	T6	3/4”	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NN850EN2F32N**
	42	GX24Q	T6	3/4”	387 (15.24)	419 (16.50)	6.95 (15.32)	24.37 (1487.15)	**NN850EN2F42N**
30° Stanchion									
NN850F–N									
	26	GX24Q	T6	1-1/2”	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NN850FN2F26N**
	32	GX24Q	T6	1-1/2”	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NN850FN2F32N**
	42	GX24Q	T6	1-1/2”	343 (13.50)	420 (16.54)	6.90 (15.21)	23.83 (1454.20)	**NN850FN2F42N**
90° Stanchion									
NN850H–N									
	26	GX24Q	T6	1-1/2”	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NN850HN2F26N**
	32	GX24Q	T6	1-1/2”	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NN850HN2F32N**
	42	GX24Q	T6	1-1/2”	358 (14.09)	473 (18.62)	7.02 (15.48)	24.32 (1484.10)	**NN850HN2F42N**

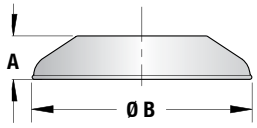
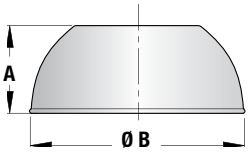
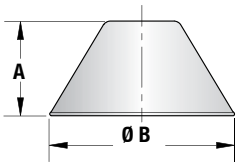
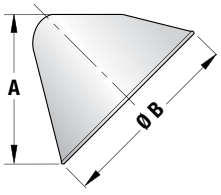
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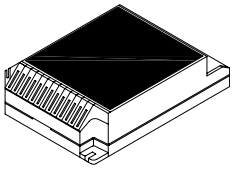
Nutsteel® NN850–N Series Luminaires

Zone 2 – 21 and 22. Non-Incendive. Restricted Breathing. Compact Fluorescent

Reflectors

	Luminaire Type			Dimensions mm (in) A	Dimensions mm (in) Ø B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Shallow Dome								
	NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	78 (3.07)	410 (16.14)	0.72 (1.59)	13.00 (793.31)	**NEREA104**
Standard Dome								
	NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	135 (5.31)	410 (16.14)	0.68 (1.50)	21.80 (1330.32)	**NEREA204**
Deep Dome								
	NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	210 (8.27)	410 (16.14)	0.89 (1.96)	35.30 (2154.14)	**NEREA304**
Angle								
	NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	260 (10.24)	410 (16.14)	0.95 (2.09)	51.00 (3112.21)	**NEREA404**

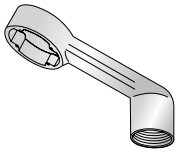
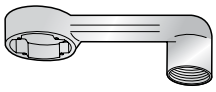
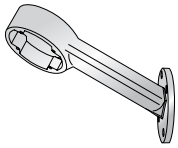
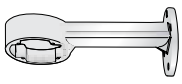
High Power Factor Ballast (60 Hz) — For Use With Any Mounting Hood

	Description	Catalog Number
	Ballast for 26 W Lamp	**NFCHN850F26**
	Ballast for 32 W Lamp	**NFCHN850F32**
	Ballast for 42 W Lamp	**NFCHN850F42**

① *For reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position. Example: NERE**F**104.*

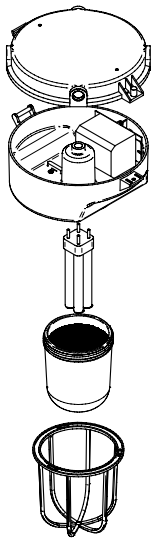
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Accessories and Replacement Parts

	Description	Luminaire Type			Catalog Number
	Protective Guard	NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	**NFGRD852TN**
	Glass Globe	NN850A-N NN850E-N	NN850B-N NN850F-N	NN850C-N NN850H-N	**NXGLBN850N2**
	Mounting Hood with 4 Entries	NN850C-N		3/4" NPT	**NFCXA85TN**
				3/4" BSP	**NFCXA85TB**
		NN850E-N		M25	**NFCXA85TM**
	30° Stanchion Mounting Bracket	NN850F-N		1-1/2" NPT	**NFPES85FTN**
				1-1/2" BSP	**NFPES85FTB**
				M50	**NFPES85FTM**
	90° Stanchion Mounting Bracket	NN850H-N		1-1/2" NPT	**NFPES85HTN**
				1-1/2" BSP	**NFPES85HTB**
				M50	**NFPES85HTM**
	30° Wall Mounting Bracket	NN850C-N			**NFPES85CTN**
	90° Wall Mounting Bracket	NN850E-N			**NFPES85ETN**

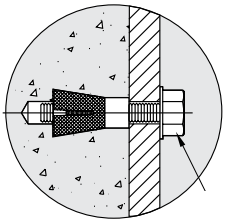
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Installation and Maintenance



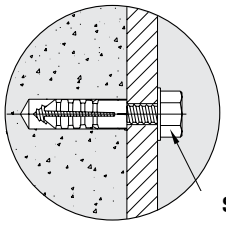
For Affixing to Concrete

Steel anchor bolt (not included)



For Affixing to Masonry

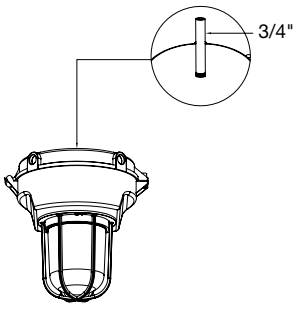
Nylon bushing (not included)



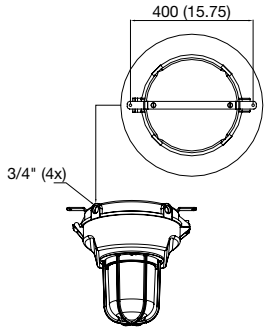
Note: Equipment for installation in explosive atmospheres (Zone 2) is supplied assembled with their ballast to retain equipment certification.

Mounting Details ① — Dimensions in Millimeters (Inches)

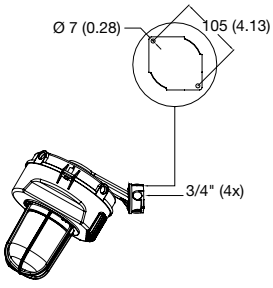
NN850A–N — Pendant



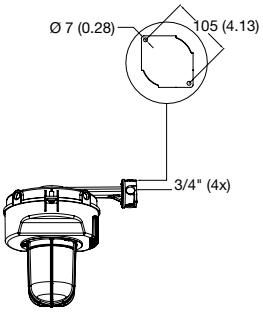
NN850B–N — Ceiling



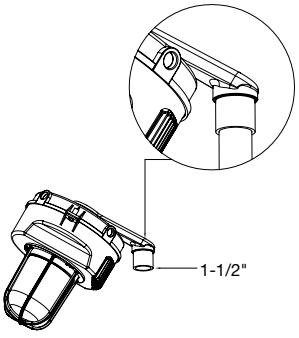
NN850C–N — 30° Wall



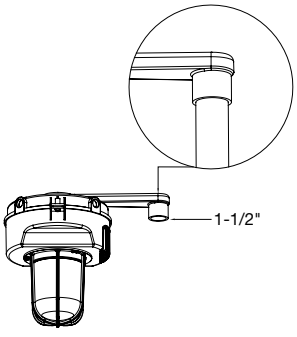
NN850E–N — 90° Wall



NN850F–N — 30° Stanchion



NN850H–N — 90° Stanchion



① *Any unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA.*

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A.T.X.® RE Series Recessed and Surface Mounting Fluorescent Luminaires

Standard and Emergency Back-Up. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK09/10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP66

Applications

- Designed for flush or surface mounting; most specifically clean room environments where a seamless smooth ceiling is mandatory.
- Typical applications include: the food industry, chemical plants, pharmaceuticals and delicate electronic manufacturing such as the aerospace industry.
- Ideal for use in rigorous corrosive environments, involving water, dust and extreme temperature variations.
- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.

Features

- One piece welded steel housing with integral frame to seal out contaminants.
- Allows recessed mounting in permanent ceilings from 55 mm to 130 mm (2.17 to 5.12 in).
- Frameless tempered 5 mm (1/4 in) thick lens. Lens secured to housing by internal metallic hinges and secured with captive 316L stainless steel screws, allowing for easy lamp replacement and fixture maintenance.
- Positive safety switch and Ex e battery with plug-in connector for safety and easy maintenance in hazardous locations.
- Designed for ease of installation and maintenance.
- Bi-pin G13 lampholder.
- Also available as surface mounting version.
- New ballast:
  - — EOL (End Of Life) protection in accordance to the latest EN 60079-7 standard
  - — Multi-tap 110 to 254 Vac/Vdc +/-10% 50/60 Hz
  - — Two channel standard ballast (if one lamp fails the second lamp remains in operation)
  - — Ex e plug-in connector for rapid and error free maintenance
  - — Self test on 3 hours duration emergency version
  - — High power factor electronic ballast (>0.95)
- Cable entries:
  - — Three clearance holes for M20 cable gland supplied with M20 polyamide cable gland — cable diameter 6.5 to 14.5 mm (0.26 to 0.57 in) — and M20 polyamide blanking plug. *See Standard Cable Entry Accessories on following pages*.
  - — One M6 earth stud.

Standard Materials

- Housing and integral frame: one piece, welded steel
- Safety lens: 5 mm (0.20 in) thick tempered
- Gasket: silicone, 4 lips, completely sealed and contained in the fixture
- Internal reflector: white polycarbonate multi-parabolic
- Cable gland and blanking plug: polyamide

Standard Finishes

- Housing and integral frame: white powder epoxy paint

Options

- 3 hours emergency version - Battery 6 V - 4 Ah. Add suffix -**E**.
- 1 hour 30 emergency (combined) - Battery 6 V - 7 Ah. Add suffix -**E1**.
- 3H Emergency (combined) - Battery 6 V - 7 Ah. . Add suffix -**E7**.
- Without safety switch. Add suffix -**N**.
- White painted steel internal reflector. Add suffix -**P**.
- 316L stainless steel housing and integral frame, natural finish. Add suffix -**S**.



4 x 18 W Surface Mounting



2 x 36 W Recessed

ATEX/IECEx Certifications and Compliances

- Certification Type: RE
  - — Gas: Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 G
    - – ATEX/IEC Protection: Ex de IIC/ Ex demb IIC (emergency version)
    - – T Rating: T6 to T4 (see *T Ratings* on following page)
  - — Dust: Zone 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T75 °C (T167 °F)
- Ambient Temperature: -20 °C ≤ Ta ≤ 55 °C (-4 °F ≤ Ta ≤ 131 °F)
- CE Declaration of Conformity: 50276
- ATEX Certificate: LCIE 07 ATEX 6104
- IECEx Certificate: IECEx LCI 07.0019
- Index of Protection: IP66
- Impact of Resistance: IK09 or IK10 depending on version
- Ex standards: EN/IEC 60079-0; 60079-1; 60079-7; 60079-18 61241-0; 61241-1
- Product standards: EN/IEC 60598-1; 60598-2-22
- EMC standards: EN/IEC 55015; 61547
- Other standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: RE
  - — Gas: Zones 1 and 2
    - – IEC Marking: Ex de IIC Gb / Ex demb IIC Gb
  - — Dust: Zones 21 and 22
    - – IEC Marking: Ex tb IIIC Db
- Ambient Temperature: -20 °C ≤ Ta ≤ 55 °C (-4 °F ≤ Ta ≤ 131 °F)
- INMETRO Ordinance: 179
- INMETRO Certificate: BVC 13.2672
- Ingress Protection: IP66
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-18, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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Standard and Emergency Back-Up. Increased Safety

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Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK09/10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP66

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — RE Series Recessed Fluorescent Luminaires

RE — Series:
RE - RE Series
Zone 1 and 2 – 21 and 22
ATEX/IECEx Certified

N RE - RE Series
Zone 1 and 2 – 21 and 22
NBR IEC Certified

B — Lamp Type:
B - Bi-pin (G13)

1 — Number of Lamps:
1 - Single
2 - Double
3 - Three Lamps
4 - Four Lamps

18 — Wattage:
18 - 18 Watt
36 - 36 Watt
58 - 58 Watt

BU — Voltage:
B3 - 100 to 130 Vac/ Vdc, 50/60 Hz
BU - 110 to 254 Vac/ Vdc, 50/60 Hz
BK - 220 to 240 Vac/ Vdc, 50/60 Hz

F — Mounting/Access:
F - Recessed Lighting/ Front Access (U Shape)
M - Surface Mounting Lighting

L — Termination/Wiring:
L - Loop In/Loop Out
T - Through wired ①

E — Options:
E - 3H Emergency (combined) - Battery 6 V - 4 Ah
E1 - 1 H 30 Emergency (combined) - Battery 6 V - 7 Ah
E7 - 3H Emergency (combined) - Battery 6 V - 7 Ah
N - No switch ②
P - White painted steel internal reflector ③
S - 316L stainless steel housing

① *T/W and Loop in/Loop out - 3 cores (single phase).*
② *Only for standard versions.*
③ *As standard for 18 W emergency version and 4 lamp version.*

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Standard and Emergency Back-Up. Increased Safety

ATEX/IECEx:
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(Ex) II 2 GD
IP66 - IK09/10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP66

T Ratings

	Ambient Temperature					
	Ceiling Position			Wall Position		
Version	40 °C (104 °F)	50 °C (122 °F)	55 °C (131 °F)	40 °C (104 °F)	50 °C (122 °F)	55 °C (131 °F)
2 x 18 W ①	**T6**	**T5**	**T5**	**T5**	**T5**	**T4**
2 x 18 W Emergency ①	**T5**	**T4**	**T4**	**T5**	**T5**	**T4**
3 x 18 W	**T5**	**T4**	**T4**	**T4**	**T4**	**T4**
4 x 18 W	**T5**	**T4**	**T4**	**T5**	**T4**	**T4**
2 x 36 W ①	**T5**	**T4**	**T4**	**T5**	**T4**	**T4**
2 x 36 W Emergency ①	**T5**	**T4**	**T4**	**T5**	**T4**	**T4**
3 x 36 W	**T4**	**T4**	**T4**	**T4**	**T4**	**T4**
4 x 36 W	**T5**	**T4**	**T4**	**T5**	**T4**	**T4**
2 x 58 W ①	**T4**	**T4**	**T4**	**T4**	**T4**	**T4**
2 x 58 W Emergency ①	**T4**	**T4**	**T4**	**T4**	**T4**	**T4**
3 x 58 W	**T4**	**T4**	**T4**	**T4**	**T4**	**T4**
4 x 58 W	**T4**	**T4**	**T4**	**T4**	**T4**	**T4**

Termination and Wiring

- Terminal capacity: 4 mm^2 (0.006 in^2) flexible or 6 mm^2 (0.009 in^2) solid.
- Loop in/Loop out: One terminal block ②
  - — Standard version:
    2 (L) + 2 (N) + 2 (PE)
  - — Emergency version:
    2 (LP) + 2 (L) + 2 (N) + 2 (PE)
- Through wired: Two terminal blocks (one at each end) ②
  - — Standard version:
    2 (L) + 2 (N) + 2 (PE)
    1 (L) + 1 (N) + 1 (PE)
  - — Emergency version:
    2 (LP) + 2 (L) + 2 (N) + 2 (PE)
    1 (LP) + 1 (L) + 1 (N) + 1 (PE)

Standard Cable Entry Accessories

Version	Cable Gland	Blanking Plug	Nickel Plated Brass Locknut
Loop	1	1	3
Through	2	1	3

① T Rating for single lamp version is the same as twin lamp version.
② PE: Earth; N: Neutral. L: Live. LP: Permanent Live for emergency version.

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IP66 - IK09/10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP66

Recessed — 110/254 Vac/Vdc, 50/60 Hz — Front Access — White Painted Steel Housing

Version	Reflector	Wiring	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①②③④⑤⑥⑦ IECEx	NBR IEC
Standard Version — Bi-pin Lamps (G13)						
2 x 18 W	Polycarbonate	Loop	14 (30.86)	64 (3905.52)	**REB218BUFL**	**NREB218BUFL**
		Through	14 (30.86)	64 (3905.52)	**REB218BUFT**	**NREB218BUFT**
4 x 18 W	White Painted Steel	Loop	21 (46.30)	93 (5675.21)	**REB418BUFLP**	**NREB418BUFLP**
		Through	21 (46.30)	93 (5675.21)	**REB418BUFTP**	**NREB418BUFTP**
2 x 36 W	Polycarbonate	Loop	19 (41.89)	108 (6590.56)	**REB236BUFL**	**NREB236BUFL**
		Through	19 (41.89)	108 (6590.56)	**REB236BUFT**	**NREB236BUFT**
4 x 36 W	White Painted Steel	Loop	29 (63.93)	158 (9641.75)	**REB436BUFLP**	**NREB436BUFLP**
		Through	29 (63.93)	158 (9641.75)	**REB436BUFTP**	**NREB436BUFTP**
2 x 58 W	Polycarbonate	Loop	22 (48.50)	130 (7933.09)	**REB258BUFL**	**NREB258BUFL**
		Through	22 (48.50)	130 (7933.09)	**REB258BUFT**	**NREB258BUFT**
4 x 58 W	White Painted Steel	Loop	32 (70.55)	190 (11594.51)	**REB458BUFLP**	**NREB458BUFLP**
		Through	32 (70.55)	190 (11594.51)	**REB458BUFTP**	**NREB458BUFTP**
3 Hours Emergency Version — Bi-pin Lamps (G13)						
2 x 18 W	Polycarbonate	Loop	14 (30.86)	64 (3905.52)	**REB218BUFLEP**	**NREB218BUFLEP**
		Through	14 (30.86)	64 (3905.52)	**REB218BUFTEP**	**NREB218BUFTEP**
4 x 18 W	White Painted Steel	Loop	21 (46.30)	93 (5675.21)	**REB418BUFLEP**	**NREB418BUFLEP**
		Through	21 (46.30)	93 (5675.21)	**REB418BUFTEP**	**NREB418BUFTEP**
2 x 36 W	Polycarbonate	Loop	19 (41.89)	108 (6590.56)	**REB236BUFLE**	**NREB236BUFLE**
		Through	19 (41.89)	108 (6590.56)	**REB236BUFTE**	**NREB236BUFTE**
4 x 36 W	White Painted Steel	Loop	29 (63.93)	158 (9641.75)	**REB436BUFLEP**	**NREB436BUFLEP**
		Through	29 (63.93)	158 (9641.75)	**REB436BUFTEP**	**NREB436BUFTEP**
2 x 58 W	Polycarbonate	Loop	22 (48.50)	130 (7933.09)	**REB258BUFLE**	**NREB258BUFLE**
		Through	22 (48.50)	130 (7933.09)	**REB258BUFTE**	**NREB258BUFTE**
4 x 58 W	White Painted Steel	Loop	32 (70.55)	190 (11594.51)	**REB458BUFLEP**	**NREB458BUFLEP**
		Through	32 (70.55)	190 (11594.51)	**REB458BUFTEP**	**NREB458BUFTEP**

*① For surface mounting lighting, replace letter **F** with letter **M** in the 9th position; example: REB218BU**M**L.*
*② For 3 hours emergency version - Battery 6 V - 4 Ah, add suffix **E** to the end of the catalog number; example: REB218BUFL**E**.*
*③ For 1 hour 30 emergency (combined) - Battery 6 V - 7 Ah, add suffix **E1** to the end of the catalog number; example: REB218BUFL**E1**.*
*④ For 3H Emergency (combined) - Battery 6 V - 7 Ah, add suffix **E7** to the end of the catalog number; example: REB218BUFL**E7**.*
*⑤ For fixture without a safety switch, add suffix **N** to the end of the catalog number; example: REB218BUFL**N**.*
*⑥ For fixture with a white painted steel internal reflector, add suffix **P** to the end of the catalog number; example: REB218BUFL**P**.*
*⑦ For fixture with 316L stainless steel housing and integral frame and natural finish, add suffix **S** to the end of the catalog number; example: REB218BUFL**S**.*

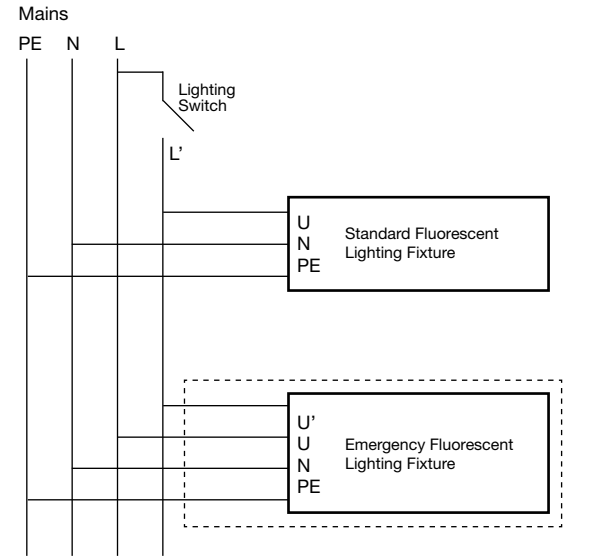
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Accessories and Replacement Parts

	Description	Weight kg (lb)	Catalog Number IECEx	Catalog Number NBR IEC
Fixing Brackets - Set of four				
	Zinc plated steel	0.60 (1.32)	**REFBST**	**NREFBST**
	316 stainless steel	0.60 (1.32)	**REFBSS**	**NREFBSS**
Ceiling Mounting Brackets - Set of two				
	Zinc plated steel	2.00 (4.41)	**RECMST**	**NRECMST**
	316 stainless steel	2.00 (4.41)	**RECMSS**	**NRECMSS**
M8 Eye Bolts - Set of four				
	Zinc plated steel	0.25 (0.55)	**REEBST**	**NREEBST**
	316 stainless steel	0.25 (0.55)	**REEBSS**	**NREEBSS**

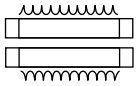
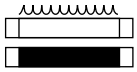
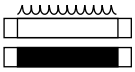
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Wiring Diagram

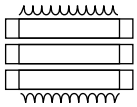
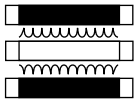
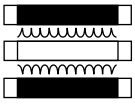


Emergency Function Diagram

Two Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

Three Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

LED Status

Color	Indication	Function
Green	LED glows	Batteries are connected
	LED blinks	Batteries are charged
Red	LED blinks	Batteries are not connected or defect
Yellow	LED blinks	Batteries are charging and discharging during automatic cycle

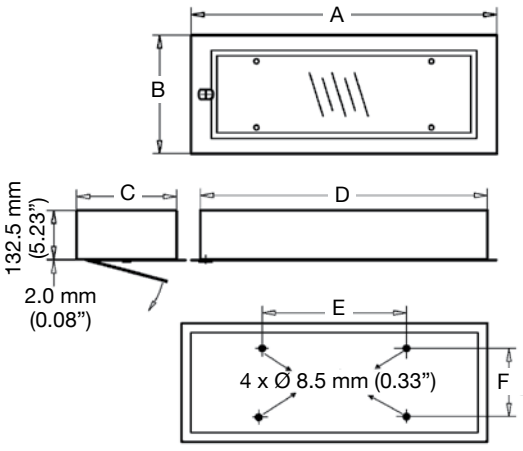
Emergency Light Duration

Version	Battery Capacity	Duration	Light Output
2 x 18 W	4 Ah – 6 V	3 hours	45%
2 x 36 W	4 Ah – 6 V	3 hours	15%
	7 Ah – 6 V	3 hours	25%
2 x 58 W	4 Ah – 6 V	3 hours	9%
	7 Ah – 6 V	3 hours	15%

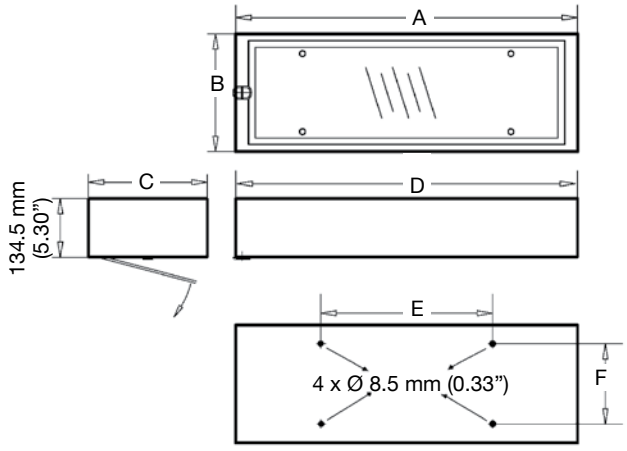
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Dimensions in Millimeters (Inches)

Recessed



Surface Mounting



Ceiling Cut–out



Versions	A	B	C	D	E	F	G	H
18 W (1, 2, 3 lamps)	826 (32.52)	320 (12.60)	270 (10.63)	776 (30.55)	390 (15.35)	184 (7.24)	786 (30.94)	280 (11.02)
18 W (4 lamps)	826 (32.52)	490 (19.29)	440 (17.32)	776 (30.55)	390 (15.35)	354 (13.94)	786 (30.94)	450 (17.72)
36 W (1, 2, 3 lamps)	1436 (56.54)	320 (12.60)	270 (10.63)	1386 (54.57)	1000 (39.37)	184 (7.24)	1396 (54.96)	280 (11.02)
36 W (4 lamps)	1436 (56.54)	490 (19.29)	440 (17.32)	1386 (54.57)	1000 (39.37)	354 (13.94)	1396 (54.96)	450 (17.72)
58 W (1, 2, 3 lamps)	1736 (68.35)	320 (12.60)	270 (10.63)	1686 (66.38)	1300 (51.18)	184 (7.24)	1696 (66.77)	280 (11.02)
58 W (4 lamps)	1736 (68.35)	490 (19.29)	440 (17.32)	1686 (66.38)	1300 (51.18)	354 (13.94)	1696 (66.77)	450 (17.72)

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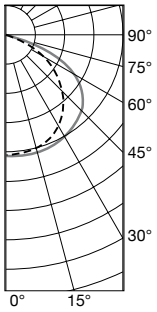
Photometric Data

Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

Longitudinal
Transverse

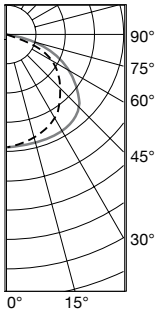
1 x 18 W
Efficiency 67.1%
NF C 71–121: 0.67 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	209	209
5	208	208
10	205	208
15	201	207
20	194	205
25	186	203
30	176	201
35	164	197
40	151	192
45	136	185
50	120	177
55	102	164
60	83	141
65	63	115
70	43	77



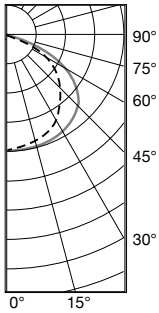
2 x 18 W
Efficiency 62%
NF C 71–121: 0.62 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	205	205
5	204	203
10	202	203
15	197	202
20	191	201
25	182	201
30	173	200
35	161	192
40	148	183
45	133	177
50	117	173
55	99	168
60	80	168
65	61	163
70	41	154



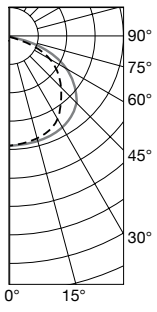
3 x 18 W
Efficiency 61.2%
NF C 71–121: 0.61 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	201	201
5	200	201
10	197	201
15	193	200
20	187	197
25	179	195
30	169	192
35	158	189
40	145	181
45	131	170
50	115	155
55	98	132
60	80	107
65	61	80
70	41	53



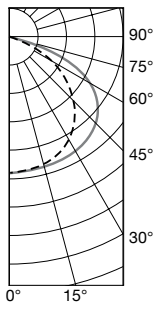
2 x 18 W
Efficiency 60.5%
NF C 71–121: 0.60 F

CANDELA DISTRIBUTION		
	0–180	90–270
0	196	196
5	195	196
10	193	195
15	189	195
20	183	193
25	175	191
30	166	187
35	155	182
40	143	174
45	129	162
50	114	147
55	98	131
60	79	109
65	60	85
70	40	62



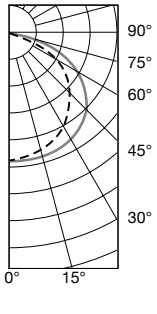
4 x 18 W
Efficiency 63.7%
NF C 71–121: 0.63 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	194	194
5	193	194
10	191	195
15	186	195
20	181	193
25	173	192
30	164	190
35	153	185
40	141	179
45	128	171
50	113	160
55	96	146
60	78	127
65	60	106
70	40	82



4 x 36 W
Efficiency 61.5%
NF C 71–121: 0.61 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	190	190
5	289	190
10	287	190
15	183	189
20	177	188
25	170	186
30	162	182
35	151	178
40	139	172
45	126	163
50	111	152
55	96	138
60	78	121
65	60	102
70	42	80



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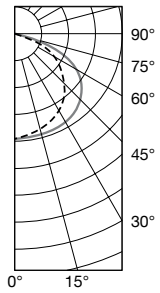
Photometric Data

Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

Longitudinal
Transverse

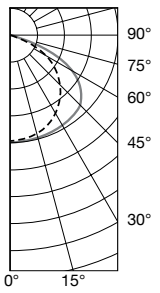
1 x 36 W
Efficiency 64.4%
NF C 71–121: 0.64 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	196	196
5	195	196
10	192	196
15	188	194
20	182	192
25	174	189
30	165	188
35	154	185
40	152	181
45	129	176
50	114	170
55	97	159
60	80	143
65	61	116
70	43	76



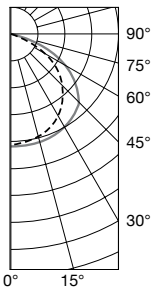
2 x 36 W
Efficiency 64.8%
NF C 71–121: 0.64 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	198	198
5	197	198
10	194	198
15	190	197
20	184	196
25	176	195
30	167	195
35	156	194
40	144	191
45	130	184
50	115	172
55	98	154
60	80	129
65	62	101
70	43	72



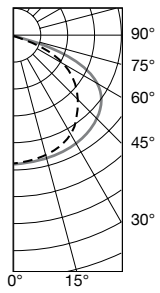
3 x 36 W
Efficiency 63.7%
NF C 71–121: 0.63 F

CANDELA DISTRIBUTION		
	0–180	90–270
0	207	207
5	207	208
10	204	208
15	199	206
20	193	204
25	185	202
30	175	200
35	164	196
40	151	189
45	136	178
50	120	162
55	103	139
60	84	112
65	65	83
70	45	55



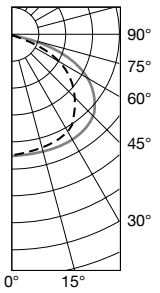
1 x 58 W
Efficiency 64.9%
NF C 71–121: 0.65 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	189	189
5	188	189
10	187	188
15	184	187
20	181	186
25	176	185
30	170	185
35	162	184
40	150	180
45	136	175
50	119	169
55	102	162
60	83	146
65	63	122
70	43	85



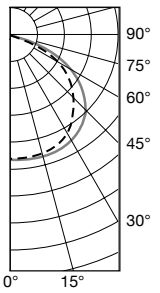
2 x 58 W
Efficiency 61.8%
NF C 71–121: 0.62 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	182	182
5	182	183
10	181	183
15	178	182
20	174	182
25	170	182
30	164	181
35	156	181
40	145	178
45	131	172
50	116	162
55	99	148
60	81	126
65	52	99
70	43	70



3 x 58 W
Efficiency 57.8%
NF C 71–121: 0.58 E

CANDELA DISTRIBUTION		
	0–180	90–270
0	185	185
5	185	185
10	183	185
15	181	184
20	177	182
25	172	180
30	166	178
35	159	174
40	147	168
45	133	158
50	118	144
55	100	125
60	82	101
65	63	75
70	43	49



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A.T.X.® FD Series Cylindrical Fluorescent Luminaires

Standard and Emergency Battery Back-Up. Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/68

NBR IEC ①:
Zone 1 and 2
Ex d IIB+H2/Ex d IIC Gb
Ex tb IIIC Db
IP 66/68

Applications

- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- For use in locations where a high degree of corrosion resistance is required.
- For indoor/outdoor use where protection against dirt, water and moisture is necessary.
- Typical applications include:
  - — Oil refineries
  - — Petrochemical facilities
  - — Pulp and paper, mills
  - — Painting, sewage and water treatment facilities
  - — Warehouses
  - — Underground tunnels
  - — General manufacturing facilities

Features

- Impact resistant borosilicate glass sealed tube.
- Easy access to lamps through gray painted Zamak threaded entry cap.
- Supplied with O-ring for improved ingress protection.
- Corrosion-resistant gray painted Zamak.
- Supplied with energy efficient and self induction ferromagnetic ballast on a removable gear tray.
- Quick and easy installation of fluorescent lighting fixtures with 2G11 and G13 lamp holders.
- Supplied with external and internal ground/earth connection.
- Fixture supplied with one M20 blanking plug.
- Easy connection to wire and disconnect with plug-in terminal blocks.
- Bi-pin (G13) 18 and 36 W magnetic ballast versions operate at 70 °C (158°F) ambient temperature with T4 rating.
- Magnetic ballast versions 230 V 50 Hz or 240 V 50 Hz or 220 V 60 Hz or 230 V 60 Hz.
- Electronic ballast versions 110 to 254 Vac/Vdc, 50/60 Hz.
- 3 hour emergency version with automatic self test every month
- Plug in battery pack (6 V 4 Ah) is easy to remove for maintenance.

Standard Materials

- End caps and cover: aluminum
- Glass tube: tempered borosilicate glass (18 W), or borosilicate glass (36 W and 58 W)
- O-ring gasket: Nitrile (NBR)
- Internal reflector: white powder coated galvanized steel
- Mounting accessories: several accessories in different material such as zinc plated steel, galvanized steel or 316 stainless steel

Options

- 3 lamp versions.
- 8 W fluorescent (Bi-pin G5) available, see section HBDC series.

ATEX/IEC Certifications and Compliances

- Certification Type: FLd
  - — Gas: Zone 1 and 2:
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex d IIB, Ex d IIB+H_2, Ex d IIC
    - – T Rating: See *T Rating (Gas) and Surface Temperature (Dust) Table*



2 x 58 W



2 x 36 W



2 x 18 W

  - — Dust: Zone 21 and 22:
    - – Conforming to ATEX 94/9/CE: CE Ⓔx II 2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: See *T Rating (Gas) and Surface Temperature (Dust) Table*
- Ambient Temperature: -20 °C to 55 °C (-4 °F to 131 °F)
- CE Declaration of Conformity: 50203
- ATEX Certificate: LCIE 97 ATEX 6012
- IECEx Certificate: IECEx LCI 04.0018
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66/68
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm^3 (122.05in^3) - 2 liters
- Ex Standards: EN/IEC 60079-0; 60079-1; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1; 60598-2-22
- EMC Standards: EN/IEC 55015; 61547
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)\

NBR IEC Brazilian Certifications and Compliances

- Certification Type: FLd
  - — Gas: Zone 1 and 2:
    - – IEC Marking: Ex d IIB+H_2/Ex d IIC Gb
  - — Dust: Zone 21 and 22:
    - – IEC Marking: Ex tb IIIC Db
- Ambient temperature: -20 °C to 55 °C (-4 °F to 131 °F)
- Ingress Protection: IP66/68 (10 meters)
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0492
- Impact Resistance (shock): IK08
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- For labels see *Labels for Emergency Lighting Units, ATX Self-Adhesive Signaling Labels for Emergency Lighting Units*.

① The 58 Watt version is not certified for use in NBR IEC governed locations.

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A.T.X.® FD Series Cylindrical Fluorescent Luminaires

Standard and Emergency Battery Back-Up. Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
(Ex) II 2 GD
IP66/68

NBR IEC ①:
Zone 1 and 2
Ex d IIB+H2/Ex d IIC Gb
Ex tb IIIC Db
IP 66/68

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — FD Series Cylindrical Fluorescent Luminaires

FD — Series:
FD - FD Series Zone 1 and 2 - 21 and 22 ATEX/IECEx Certified
NFD - FD Series Zone 1 and 2 - 21 and 22 NBR IEC Certified

B — Lamp Type:
B - Bi-pin (G13) Fluorescent
C - Compact Fluorescent (2G11)
F - Bi-pin (G5) Fluorescent

1 — Number of Lamps:
1 - Single
2 - Double
3 - Three Lamps

18 — Wattage:
18 - 18 Watt
36 - 36 Watt
58 - 58 Watt ①

BU — Voltage (50/60 Hz):
Standard versions:
AA - 220 Vac, 60 Hz
AC - 230 Vac, 60 Hz
XC - 230 Vac, 50 Hz
X3 - 240 Vac, 50 Hz
BU - 110 to 254 Vac/Vdc, 50/60 Hz ②

M — Cable Entry:
M - Metric M20
N - NPT 3/4"

E — Options:
(Options must be listed alphabetically)
E - 3h Emergency (combined) – Battery 6 V 4 Ah ②

T Rating (Gas) and Surface Temperature (Dust) Table

Model	Lamp Type	Gas – T Rating: Without External Reflector Ta = 40 °C (104 °F)	Without External Reflector Ta = 55 °C (131 °F)	Without External Reflector Ta = 70 °C (158 °F)	With External Reflector Ta = 40 °C (104 °F)	With External Reflector Ta = 55 °C (131 °F)	Dust – Surface Temperature: Without External Reflector	Dust – Surface Temperature: With External Reflector
0.3	Compact Fluorescent 2G11 18 W max.	**T6**	**T5**	N.A.	**T5**	**T4**	95 °C (203 °F)	130 °C (266 °F)
0.6	a) Fluorescent G13 Magnetic Ballast 1 x 18 W/2 x 18 W	**T6**	**T5**	**T4**	**T6**	**T5**	97 °C (207 °F)	95 °C (203 °F)
	b) Fluorescent G13 Electronic Ballast 1 x 18 W/2 x 18 W/3 x 18 W	**T6**	**T6**	N.A.	**T6**	**T5**	78 °C (172 °F)	95 °C (203 °F)
	c) Compact Fluorescent 2G11 1 x 36 W 2 x 36 W	**T6**	**T5**	N.A.	**T6** **T5**	**T4**	95 °C (203 °F)	130 °C (266 °F)
1.2	a) Fluorescent G13 Magnetic Ballast 1 x 36 W/2 x 36 W/3 x 36 W	**T6**	**T5**	**T4**	**T6**	**T5**	110 °C (230 °F)	95 °C (203 °F)
	b) Fluorescent G13 Electronic Ballast 1 x 36 W/2 x 36 W/3 x 36 W	**T6**	**T6**	N.A.	**T6**	**T6**	78 °C (172 °F)	80 °C (176 °F)
1.5	a) Fluorescent G13 Magnetic Ballast 1 x 58 W/2 x 58 W	**T6**	**T6**	N.A.	**T6**	**T5**	80 °C (176 °F)	95 °C (203 °F)
	b) Fluorescent G13 Electronic Ballast 1 x 58 W/2 x 58 W/3 x 58 W	**T6**	**T5**	N.A.	**T6**	**T5**	84 °C (183 °F)	95 °C (203 °F)

① The 58 Watt version is not certified for use in NBR IEC governed locations.
② The 3 hour emergency version is only available on fluorescent, 2 lamp fixtures with BU voltage - 110 to 254 Vac/Vdc, 50/60 Hz.

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A.T.X.® FD Series Cylindrical Fluorescent Luminaires

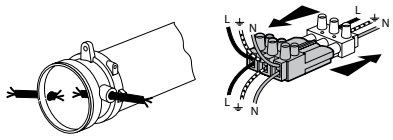
Standard and Emergency Battery Back-Up. Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/68

NBR IEC ①:
Zone 1 and 2
Ex d IIB+H2/Ex d IIC Gb
Ex tb IIIC Db
IP 66/68

Ordering Information – Standard Versions

Two M20 threaded entries, supplied with one M20 aluminum blanking plug.
Connection via 1 x 3 double deck terminals.
Capacity (flexible/solid): 0.75 mm² to 2.5 mm² (0.001 in² to 0.004 in²).



For Bi-pin (G13) Fluorescent Lamps - T8, 26 mm (1.02 in) or T12, 38 mm (1.50 in)
230 V - 50 Hz – Magnetic Ballast – Starter Ignition
Compensated power supply – power factor > 0.9

Wattage (W)	No. of Lamps	Gas Group	Model	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ATEX/IEC	Catalog Number NBR IEC
18	1	IIC	0.6	9.0 (19.8)	58 (3539.38)	**FDB118XCM**	**NFDB118XCM**
	2	IIC	0.6	9.7 (21.38)	58 (3539.38)	**FDB218XCM**	**NFDB218XCM**
36	1	IIB+H_2	1.2	14.7 (32.41)	99 (6041.35)	**FDB136XCM**	**NFDB136XCM**
	2	IIB+H_2	1.2	15.3 (33.73)	99 (6041.35)	**FDB236XCM**	**NFDB236XCM**
58 ①	1	IIB	1.5	17.0 (37.48)	119 (7261.83)	**FDB158XCM**	—
	2	IIB	1.5	18.2 (40.12)	119 (7261.83)	**FDB258XCM**	—
240 V - 50 Hz – Magnetic Ballast – Starter Ignition							
Compensated power supply – power factor > 0.9							
18	1	IIC	0.6	9.0 (19.8)	58 (3539.38)	**FDB118X3M**	**NFDB118X3M**
	2	IIC	0.6	9.7 (21.38)	58 (3539.38)	**FDB218X3M**	**NFDB218X3M**
36	1	IIB+H_2	1.2	14.7 (32.41)	99 (6041.35)	**FDB136X3M**	**NFDB136X3M**
	2	IIB+H_2	1.2	15.3 (33.73)	99 (6041.35)	**FDB236X3M**	**NFDB236X3M**
58 ①	1	IIB	1.5	17.0 (37.48)	119 (7261.83)	**FDB158X3M**	—
	2	IIB	1.5	18.2 (40.12)	119 (7261.83)	**FDB258X3M**	—
220 V - 60 Hz – Magnetic Ballast – Starter Ignition							
Compensated power supply – power factor > 0.9							
18	2	IIC	0.6	9.7 (21.38)	58 (3539.38)	**FDB218AAM**	**NFDB218AAM**
36	2	IIB+H_2	1.2	15.3 (33.73)	99 (6041.35)	**FDB236AAM**	**NFDB236AAM**
58 ①	2	IIB	1.5	18.2 (40.12)	119 (7261.83)	**FDB258AAM**	—
230 V - 60 Hz – Magnetic Ballast – Starter Ignition							
Compensated power supply – power factor > 0.9							
18	2	IIC	0.6	9.7 (21.38)	58 (3539.38)	**FDB218ACM**	**NFDB218ACM**
36	2	IIB+H_2	1.2	15.3 (33.73)	99 (6041.35)	**FDB236ACM**	**NFDB236ACM**
58 ①	2	IIB	1.5	18.2 (40.12)	119 (7261.83)	**FDB258ACM**	—

① *The 58 Watt version is not certified for use in NBR IEC governed locations.*

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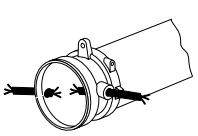
A.T.X.® FD Series Cylindrical Fluorescent Luminaires

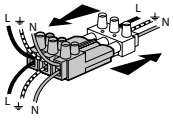
Standard and Emergency Battery Back-Up. Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/68

NBR IEC ①:
Zone 1 and 2
Ex d IIB+H2/Ex d IIC Gb
Ex tb IIIC Db
IP 66/68

Ordering Information – Standard Versions – Continued



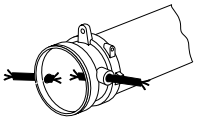


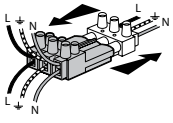
Two M20 threaded entries, supplied with one M20 aluminum blanking plug.
Connection via 1 x 3 double deck terminals.
Capacity (flexible/solid): 0.75 mm² to 2.5 mm² (0.001 in² to 0.004 in²).

For Bi-pin (G13) Fluorescent Lamps - T8, 26 mm (1.02 in) or T12, 38 mm (1.50 in)
110 to 254 Vac/Vdc, 50/60 Hz – Electronic Ballast
Power factor > 0.95

Wattage (W)	No. of Lamps	Gas Group	Model	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ATEX/IEC	Catalog Number NBR IEC
18	2	IIC	0.6	9.7 (21.38)	58 (3539.38)	**FDB218BUM**	**NFDB218BUM**
36	2	IIB	1.2	15.3 (33.73)	99 (6041.35)	**FDB236BUM**	**NFDB236BUM**
	3	IIB	1.2	16.3 (35.94)	99 (6041.35)	**FDB336BUM**	**NFDB336BUM**
58 ①	1	IIB	1.5	17.0 (37.48)	119 (7261.83)	**FDB158BUM**	—
	2	IIB	1.5	18.2 (40.12)	119 (7261.83)	**FDB258BUM**	—
	3	IIB	1.5	19.2 (42.33)	119 (7261.83)	**FDB358BUM**	—
For 2G11 Compact Fluorescent Lamps – TC-L 230 V - 50 Hz – Magnetic Ballast – Starter Ignition Compensated power supply – power factor > 0.9 – Lamps supplied							
18	1	IIC	0.3	9.0 (19.8)	58 (3539.38)	**FDC118XCM**	**NFDC118XCM**
	2	IIC	0.3	9.7 (21.38)	58 (3539.38)	**FDC218XCM**	**NFDC218XCM**
36	1	IIB+H_2	0.6	14.7 (32.41)	99 (6041.35)	**FDC136XCM**	**NFDC136XCM**
	2	IIB+H_2	0.6	15.3 (33.73)	99 (6041.35)	**FDC236XCM**	**NFDC236XCM**

Emergency Versions





Two M20 threaded entries, supplied with one M20 aluminum blanking plug.
Connection via 1 x 4 double deck terminals.
Capacity (flexible/solid): 0.75 mm² to 2.5 mm² (0.001 in² to 0.004 in²).

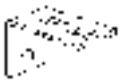
For Bi-pin (G13) Fluorescent Lamps – T8, 26 mm (1.02 in) or T12, 38 mm (1.50 in)
110 to 254 Vac/Vdc, 50/60 Hz – Electronic Ballast
3 hour duration - battery pack 6 V 4 Ah - Power factor > 0.95 -
Self test every month.

Wattage (W)	No. of Lamps	Gas Group	Model	Line Output	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ATEX/IEC	Catalog Number NBR IEC
18	2	IIC	0.6	29%	11.6 (25.57)	58 (3539.38)	**FDB218BUME**	**NFDB218BUME**
36	2	IIB	1.2	16%	17.2 (37.92)	99 (6041.35)	**FDB236BUME**	**NFDB236BUME**
58 ①	2	IIB	1.5	11%	20.2 (44.53)	119 (7261.83)	**FDB258BUME**	—

① The 58 Watt version is not certified for use in NBR IEC governed locations.

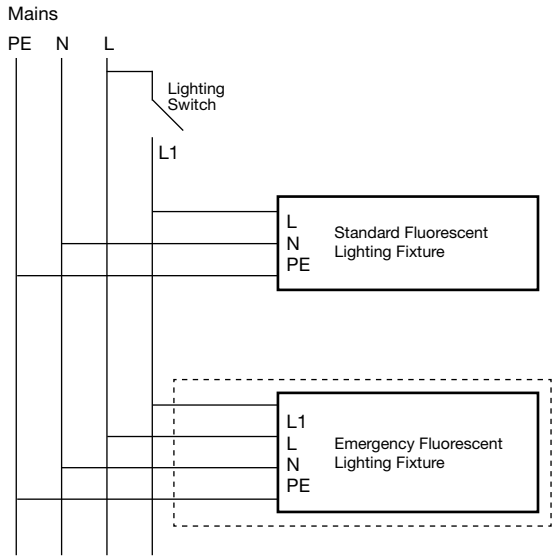
Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Accessories and Replacement Parts

Description	Catalog Number IECEx	NBR IEC	Old Catalog Number
External Reflector – White Painted Galvanized Steel			
 Model 0.3	**FDER1G**	**NFDER1G**	**NE94868**
Model 0.6	**FDER2G**	**NFDER2G**	**NE94869**
Model 1.2	**FDER3G**	**NFDER3G**	**NE94870**
Model 1.5	**FDER4G**	**NFDER4G**	**NE94871**
Protective Guard – Zinc Plated Steel			
 Model 0.3	**FDPG1Z**	**NFDPG1Z**	**NE94872**
Model 0.6	**FDPG2Z**	**NFDPG2Z**	**NE94873**
Model 1.2	**FDPG3Z**	**NFDPG3Z**	**NE94874**
Model 1.5	**FDPG4Z**	**NFDPG4Z**	**NE94875**
Fixing Brackets for Ease of Surface Installation – Set of Two			
 Zinc plated steel	**FDFBZ**	**NFDFBZ**	**NE94897**
316 stainless steel	**FDFBS**	**NFDFBS**	**NE94889**
Surface Mounting Brackets – Set of Two			
 Zinc plated steel	**FDSBZ**	**NFDSBZ**	**NE94898**
316 stainless steel	**FDSBS**	**NFDSBS**	**NE94890**
Half Clamp Brackets for Pole Mounting – Set of Two			
Pole diameter 42 to 49 mm (1.65 to 1.93 in) Tube diameter 31.8 to 38.1 mm (1.25 to 1.5 in)			
 Zinc plated steel	**FDHC49Z**	**NFDHC49Z**	**NE94899**
316 stainless steel	**FDHC49S**	**NFDHC49S**	**NE94892**
Pole diameter 60 mm (2.36 in) Tube diameter 50.8 mm (2 in)			
Zinc plated steel	**FDHC60Z**	**NFDHC60Z**	**NE94891**
316 stainless steel	**FDHC60S**	**NFDHC60S**	**NE94893**
Fall Prevention Kit			
1.20 meter (3.94 foot) stainless steel chain	**FDSCS**	**NFDSCS**	**NE93819**

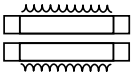
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Wiring Diagram



Emergency Function Diagram

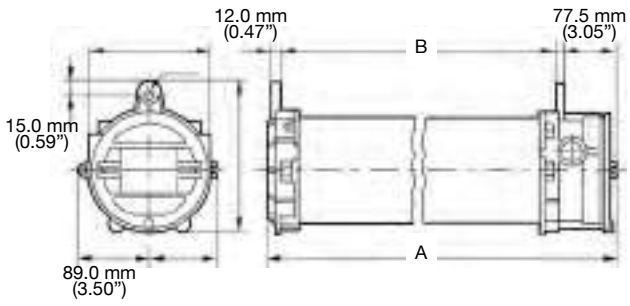
Two Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

LED Status

Color	Indication	Function
Green	Blinking 1:1	Mains good, battery quick charging
	ON	Mains good, battery trickle charging
Red	Blinking 1:1	No battery connected or something is defective
	Flashing 1:1	Mains faulty, battery empty or lamp defective
	ON	Mains faulty, output ON
	OFF	No mains, battery completely empty
Yellow	Blinking 1:1	Mains good, performing self test
	ON	Result of self test was not good

Dimensions in Millimeters (Inches)



Model	A	B
0.3	430 (16.93)	335 (13.19)
0.6	745 (29.33)	650 (25.59)
1.2	1365 (53.74)	1260 (49.61)
1.5	1655 (65.16)	1560 (61.42)

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Photometric Data

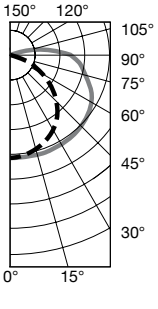
Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

Longitudinal
Transverse

Bi–pin (G13) Fluorescent

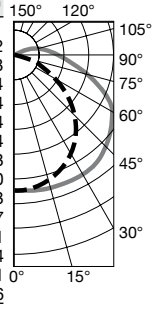
1 x 18 W
Efficiency 75.3%
NF C 71–121/0: 0.69 H + 0.06 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	167	167
5	166	167
10	164	168
15	160	168
20	154	168
25	147	168
30	139	167
35	129	166
40	118	164
45	151	162
50	106	160
55	77	157
60	61	152
65	45	144
70	28	135



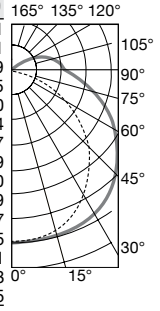
2 x 18 W
Efficiency 68.1%
NF C 71–121: 0.63 G + 0.06 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	161	161
5	160	162
10	157	163
15	153	164
20	148	164
25	141	164
30	133	164
35	123	163
40	112	130
45	100	153
50	86	147
55	73	141
60	58	134
65	41	121
70	26	106



3 x 18 W
Efficiency 57%
NF C 71–121: 0.50 G + 0.07 T

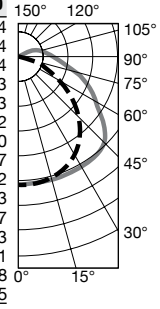
CANDELA DISTRIBUTION		
	0–180	90–270
0	141	141
5	141	141
10	141	139
15	140	135
20	139	130
25	138	124
30	136	117
35	133	109
40	128	100
45	121	89
50	113	77
55	105	65
60	96	51
65	87	38
70	78	25



2G11 Compact Fluorescent

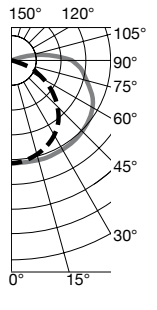
2 x 18 W
Efficiency 56.2%
NF C 71–121: 0.52 G + 0.04 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	154	154
5	153	154
10	151	154
15	147	153
20	142	153
25	136	152
30	128	150
35	119	147
40	108	142
45	95	143
50	81	127
55	66	113
60	49	101
65	32	88
70	17	75



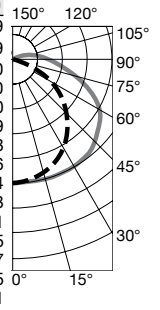
1 x 36 W
Efficiency 74.3%
NF C 71–121/0: 0.69 H + 0.05 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	164	164
5	163	164
10	161	165
15	157	165
20	151	165
25	145	165
30	137	165
35	127	164
40	116	162
45	104	160
50	91	158
55	76	154
60	61	149
65	45	140
70	30	131



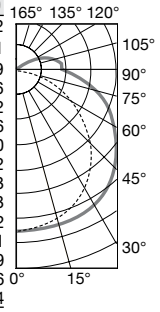
2 x 36 W
Efficiency 61.5%
NF C 71–121: 0.57 G + 0.04 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	149	149
5	148	149
10	146	150
15	142	150
20	137	150
25	131	149
30	124	148
35	114	146
40	104	144
45	93	138
50	81	131
55	68	125
60	54	117
65	40	105
70	26	91



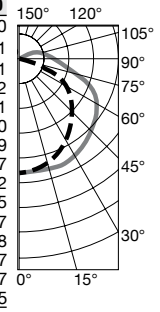
3 x 36 W
Efficiency 53.3%
NF C 71–121: 0.47 G + 0.06 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	132	132
5	132	131
10	132	129
15	131	126
20	131	122
25	131	116
30	128	110
35	125	102
40	120	93
45	114	83
50	107	72
55	99	61
60	91	49
65	82	36
70	74	24



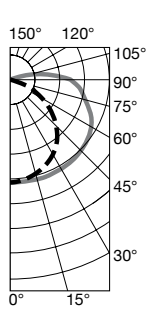
2 x 36 W
Efficiency 53.6%
NF C 71–121: 0.50 G + 0.04 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	140	140
5	139	141
10	137	141
15	134	142
20	129	141
25	124	140
30	117	139
35	109	137
40	99	132
45	89	125
50	77	117
55	65	108
60	52	97
65	38	87
70	24	75



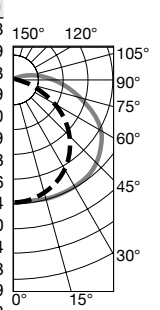
1 x 58 W
Efficiency 74.5%
NF C 71–121/0: 0.70 H + 0.05 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	167	167
5	167	167
10	164	167
15	160	167
20	154	167
25	147	166
30	139	165
35	130	164
40	119	163
45	106	161
50	93	158
55	78	155
60	63	149
65	47	142
70	31	132



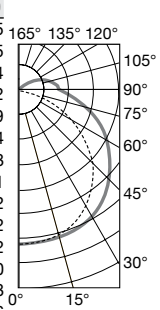
2 x 36 W
Efficiency 61.5%
NF C 71–121: 0.57 G + 0.04 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	148	148
5	147	149
10	145	148
15	142	149
20	137	150
25	131	149
30	124	148
35	115	146
40	105	144
45	94	140
50	82	134
55	69	128
60	55	119
65	42	108
70	28	95



3 x 36 W
Efficiency 53.3%
NF C 71–121: 0.47 G + 0.06 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	125	125
5	125	125
10	125	124
15	124	122
20	123	119
25	121	114
30	118	108
35	115	101
40	109	92
45	103	82
50	96	72
55	89	60
60	81	48
65	73	36
70	65	24



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A.T.X.® FE Series Nonmetallic Fluorescent Luminaires

Standard and Emergency Battery Back-Up. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP 66/67

Applications

- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- For use in locations where a high degree of corrosion resistance is required.
- For indoor/outdoor use where protection against dirt, water and moisture is necessary.
- Typical applications include oil refineries, petrochemical facilities, pulp and paper mills, food processing plants, warehouses, underground tunnels and general manufacturing facilities.

Features

- Corrosion-resistant fiberglass reinforced polyester body and hinged polycarbonate lens.
- High impact resistance housing (20 Joules – IK10) from -40 °C to +55 °C (-40 °F to +131 °F) ambient temperature and wind profile for use in extreme offshore and onshore environments.
- Latch assembly and elastomer gasket seals against water and dust ingress, IP66/67.
- Easily accessed for maintenance using Allen key or straight blade screwdriver.
- Central opening with unique patented release system to prevent damage.
- Can be horizontally or vertically mounted.
- Hinged parabolic reflector for high lumen output efficiency.
- Vibration resistant spring loaded lampholders for bi-pin (G13) or mono-pin (Fa6) ① versions.
- Positive safety switch disconnects power to lamps and ballast to allow maintenance in hazardous locations.
- Electronic multi-tap ballast 110 to 254 Vac/Vdc +/- 10% 50/60 Hz, for global applications. High power factor electronic ballast (>0.95). EOL (End Of Life) protection in accordance to the latest EN/IEC 60079-7 standard.
- Two channel ballast prevents dark areas by allowing one lamp to remain lit if one fails.
- Ballast plug-in with Ex e connector for quick and error-free maintenance.
- Available in 3 hour or 90 minute emergency versions, including multi-tap ballast with built-in monthly self test. Test results through multi-colored LED.
- Ex e battery with plug-in connector.

Standard Materials

- Fiberglass reinforced polyester housing
- Polycarbonate lens
- Elastomer gasket
- Highly reflective white polycarbonate internal reflector
- Mounting accessories available in different materials such as gray painted aluminum, zinc plated steel, galvanized steel or 316 stainless steel

Options

- Silicone coating for added protection in H_2S hydrogen sulfide environments.
- ATEX/IEC version available without safety switch.
- Level gauge light fitting.
- 316 stainless steel fixing inserts.



2 x 58 W



2 x 36 W



2 x 18 W

ATEX/IECEx Certifications and Compliances

- Certification Type: FLe
  - — Gas: Zones 1 and 2:
    - – Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 G
    - – ATEX/IEC Protection: Ex de IIC or Ex demb IIC (emergency version)
    - – T Rating: T5 ② to T4
  - — Dust: Zone 21 and 22:
    - – Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: +75 °C (+67 °F)
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- CE Declaration of Conformity: 50201
- ATEX Certificate: LCIE 07 ATEX 6017
- IECEx Certificate: LCIE Ex 04.0017
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66/67
- Impact Resistance (shock): IK10
- Ex Standards: EN/IEC 60079-0; 60079-1; 60079-7; 60079-18; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1; 60598-2-22
- EMC Standards: EN/IEC 55015; 61547
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: FLe
  - — Gas: Zones 1 and 2:
    - – IEC Marking: Ex de IIC/demb IIC Gb
  - — Dust: Zone 21 and 22:
    - – IEC Marking: Ex tb IIIC Db
- Ambient temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- Ingress Protection: IP66/67
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0276
- Impact Resistance (shock): IK10
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-7, 60079-18, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

① Mono-pin (Fa6) is NOT certified for use in NBR IEC governed locations.
② With ceiling position use at +40 °C (+104 °F) ambient temperature.

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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A.T.X.® FE Series Nonmetallic Fluorescent Luminaires

Standard and Emergency Battery Back-Up. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP 66/67

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — FE Nonmetallic Fluorescent Lighting Fixtures

FE | **B** | **1** | **18** | **BU** | **P** | **A** | **C**

Series:
FE - FE Series
Zone 1, 2, 21, 22
ATEX/IECEx
Certified

NFE - FE Series
Zone 1, 2, 21, 22
NBR IEC Certified

Lamp Type:
B - Bi-pin (G13)
M - Mono Pin (Fa6) ①

Number of Lamps:
1 - Single
2 - Double
3 - Three Lamps

Wattage:
18 - 18 Watt
36 - 36 Watt
58 - 58 Watt

Voltage:
BU - 110 to 254 Vac/ Vdc, 50/60 Hz

Mounting Version:
P - Pole Mount ⑤
S - Surface/Suspension Mount Standard Wiring
T - Surface/Suspension Mount Through Wiring
L - Surface/Suspension Mount Dual Loop in/out Through Wiring (single phase)

Cable Type:
A - Armored M20
N - Unarmored M25
U - Unarmored M20

Options:
(options must be listed alphabetically)
C - Silicon Coating for Diffuser
E - 3 Hour Emergency Battery:
6 V - 4 Ah (18W)
6 V - 7 Ah (36W, 58W)
E9 - 90 Minute Emergency Battery:
6 V - 4 Ah (18W)
6 V - 7 Ah (36W, 58W)
L - Level Gauge Light Fitting ②
N - No Switch ③
X - 4 Entries ④

① Mono-pin (Fa6) is NOT certified for use in NBR IEC governed locations.
② Only for single standard versions.
③ Only for standard versions.
④ Only for S, T and L mounting versions.
⑤ Only 2 x 18 W and 2 x 36 W with M25 entry versions.

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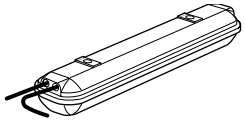
A.T.X.® FE Series Nonmetallic Fluorescent Luminaires

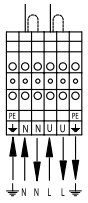
Standard and Emergency Battery Back-Up. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP 66/67

Surface/Suspension Mounting and Standard Wiring Version
Connection via 1 x 6 terminals.
Capacity (flexible/solid): 4 mm²/6 mm² (0.0062 in²/0.0093 in²) — 10/8 AWG.





Unarmored Version - Bi-pin (G13)
Three M25 threaded entries, two at one end and one at opposite end, supplied with one M25 polyamide cable gland — 8 to 18.5 mm (0.31 to 0.73") diameter — and two M25 polyamide plugs.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
1	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	**FEB118BUSN**	**NFEB118BUSN**
2	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	**FEB218BUSN**	**NFEB218BUSN**
1	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	**FEB136BUSN**	**NFEB136BUSN**
2	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	**FEB236BUSN**	**NFEB236BUSN**
3	36	G13	110/254	9.9 (21.83)	54.2 (3307.49)	**FEB336BUSN**	**NFEB336BUSN**
1	58	G13	110/254	9.0 (19.84)	65.0 (3966.54)	**FEB158BUSN**	**NFEB158BUSN**
2	58	G13	110/254	9.0 (19.84)	65.0 (3966.54)	**FEB258BUSN**	**NFEB258BUSN**
3	58	G13	110/254	11.0 (24.30)	65.0 (3966.54)	**FEB358BUSN**	**NFEB358BUSN**

Armored Version - Bi-pin (G13)
Two M20 threaded entries with brass earth continuity plate at one end and one M20 plugged clearance entry, supplied with two M20 polyamide plugs.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
1	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	**FEB118BUSA**	**NFEB118BUSA**
2	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	**FEB218BUSA**	**NFEB218BUSA**
1	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	**FEB136BUSA**	**NFEB136BUSA**
2	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	**FEB236BUSA**	**NFEB236BUSA**
3	36	G13	110/254	9.9 (21.83)	54.2 (3307.49)	**FEB336BUSA**	**NFEB336BUSA**
1	58	G13	110/254	9.0 (19.84)	65.0 (3966.54)	**FEB158BUSA**	**NFEB158BUSA**
2	58	G13	110/254	9.0 (19.84)	65.0 (3966.54)	**FEB258BUSA**	**NFEB258BUSA**
3	58	G13	110/254	11.0 (24.30)	65.0 (3966.54)	**FEB358BUSA**	**NFEB358BUSA**

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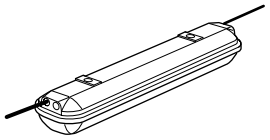
A.T.X.® FE Series Nonmetallic Fluorescent Luminaires

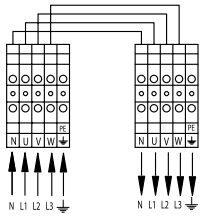
Standard and Emergency Battery Back-Up. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP 66/67

Surface/Suspension Mounting and Through Wiring Version (three phase)
Connection via 2 x 5 terminals.
Capacity (flexible/solid): 4 mm²/6 mm² (0.0062 in²/0.0093 in²) — 10/8 AWG.





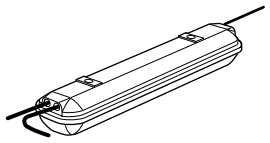
Unarmored Version - Bi-pin (G13)
Three M25 threaded entries, two at one end and one at opposite end, supplied with two M25 polyamide cable glands — 8 to 18.5 mm (0.31 to 0.73") diameter — and one M25 polyamide plug.

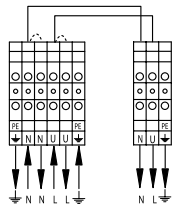
Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	**FEB218BUTN**	**NFEB218BUTN**
2	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	**FEB236BUTN**	**NFEB236BUTN**
2	58	G13	110/254	9.0 (19.84)	65.0 (3966.54)	**FEB258BUTN**	**NFEB258BUTN**

Armored Version - Bi-pin (G13)
Two M20 threaded entries with brass earth continuity plate at one end and one M20 threaded entry with brass earth continuity plate at opposite end, supplied with one M20 polyamide plug.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	**FEB218BUTA**	**NFEB218BUTA**
2	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	**FEB236BUTA**	**NFEB236BUTA**
2	58	G13	110/254	9.0 (19.84)	65.0 (3966.54)	**FEB258BUTA**	**NFEB258BUTA**

Surface/Suspension Mounting and Dual Loop In/Out Through Wiring Version (single phase):
Connection via 1 x 6 terminals and 1 x 3 terminals.
Capacity (flexible/solid): 4 mm²/6 mm² (0.0062 in²/0.0093 in²) — 10/8 AWG.





Unarmored Version - Bi-pin (G13)
Three M25 entries, two at one end and one at opposite end, supplied with two M25 polyamide cable glands — 8 to 18.5 mm (0.31 to 0.73") diameter — and one M25 polyamide plug.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	**FEB218BULN**	**NFEB218BULN**
2	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	**FEB236BULN**	**NFEB236BULN**
2	58	G13	110/254	9.0 (19.84)	65.0 (3966.54)	**FEB258BULN**	**NFEB258BULN**

Armored Version - Bi-pin (G13)
Two M20 threaded entries with brass earth continuity plate at one end and one M20 threaded entry with brass earth continuity plate at opposite end, supplied with one M20 polyamide plug.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	**FEB218BULA**	**NFEB218BULA**
2	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	**FEB236BULA**	**NFEB236BULA**
2	58	G13	110/254	9.0 (19.84)	65.0 (3966.54)	**FEB258BULA**	**NFEB258BULA**

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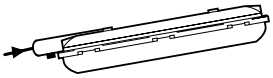
A.T.X.® FE Series Nonmetallic Fluorescent Luminaires

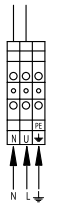
Standard and Emergency Battery Back-Up. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP 66/67

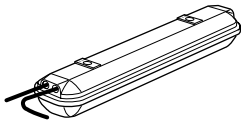
Pole Mounting Version
Connection via 1 x 3 terminals.
Capacity (flexible/solid): 4 mm²/6 mm² (0.0062 in²/0.0093 in²) — 10/8 AWG.
For mounting on 42 mm (1.65") diameter pole or tubular wall-mounting support, supplied with one integrated M25 polyamide cable gland — 8 to 18.5 mm (0.31 to 0.73") diameter.

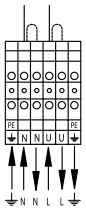




Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	G13	110/254	6.2 (13.67)	34.1 (2080.91)	**FEB218BUPN**	**NFEB218BUPN**
2	36	G13	110/254	8.7 (19.18)	54.2 (3307.49)	**FEB236BUPN**	**NFEB236BUPN**

Level Gauge Tank Light -
Surface/Suspension Mounting with Standard Wiring
Connection via 1 x 6 terminals.
Capacity (flexible/solid): 4 mm²/6 mm² (0.0062 in²/0.0093 in²) — 10/8 AWG.





Unarmored Version - Bi-pin (G13)
Three M25 entries, two at one end and one at opposite end, supplied with one M25 polyamide cable gland — 8 to 18.5 mm (0.31 to 0.73") diameter — and two M25 polyamide plugs.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
1	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	**FEB118BUSNL**	**NFEB118BUSNL**
1	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	**FEB136BUSNL**	**NFEB136BUSNL**
1	58	G13	110/254	9.0 (19.84)	65.0 (3966.54)	**FEB158BUSNL**	**NFEB158BUSNL**

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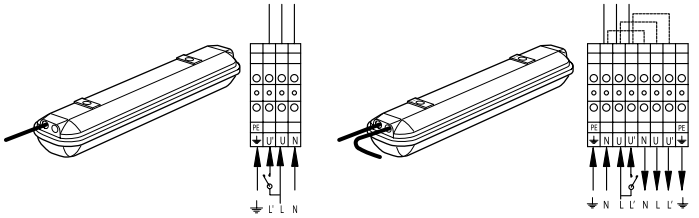
Standard and Emergency Battery Back-Up. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP 66/67

Emergency Battery Backup

Surface/Suspension Mounting and Standard Wiring
Connection via 1 x 4 terminals for 18 W version.
Connection via 1 x 8 terminals for 36 W and 58 W versions.
Capacity (flexible/solid): 4 mm^2/6 mm^2 (0.0062 in^2/0.0093 in^2) — 10/8 AWG.
Unarmored Version - Bi-pin (G13)
Three M25 entries, two at one end and one at opposite end, supplied with one M25 polyamide cable gland — 8 to 18.5 mm (0.31 to 0.73") diameter — and two M25 polyamide plugs.



Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm^3 (in^3)	Duration (Hours)	Battery Capacity	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	G13	110/254	7.3 (16.09)	32.3 (1971.07)	3 H	4Ah	**FEB218BUSNE**	**NFEB218BUSNE**
2	36	G13	110/254	9.6 (21.16)	54.2 (3307.49)	3 H	7Ah	**FEB236BUSNE**	**NFEB236BUSNE**
3	36	G13	110/254	11.6 (25.57)	54.2 (3307.49)	3 H	7Ah	**FEB336BUSNE**	**NFEB336BUSNE**
2	58	G13	110/254	10.7 (23.59)	65.0 (3966.54)	3 H	7Ah	**FEB258BUSNE**	**NFEB258BUSNE**
3	58	G13	110/254	12.7 (28.00)	65.0 (3966.54)	3 H	7Ah	**FEB358BUSNE**	**NFEB358BUSNE**

Armored Version - Bi-pin (G13)
Two M20 threaded entries with brass earth continuity plate at one end and one M20 plugged clearance entry, supplied with two M20 polyamide plugs.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm^3 (in^3)	Duration (Hours)	Battery Capacity	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	G13	110/254	7.3 (16.09)	32.3 (1971.07)	3 H	4Ah	**FEB218BUSAE**	**NFEB218BUSAE**
2	36	G13	110/254	9.6 (21.16)	54.2 (3307.49)	3 H	7Ah	**FEB236BUSAE**	**NFEB236BUSAE**
3	36	G13	110/254	11.6 (25.57)	54.2 (3307.49)	3 H	7Ah	**FEB336BUSAE**	**NFEB336BUSAE**
2	58	G13	110/254	10.7 (23.59)	65.0 (3966.54)	3 H	7Ah	**FEB258BUSAE**	**NFEB258BUSAE**
3	58	G13	110/254	12.7 (28.00)	65.0 (3966.54)	3 H	7Ah	**FEB358BUSAE**	**NFEB358BUSAE**

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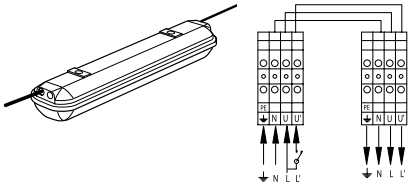
Standard and Emergency Battery Back-Up. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/67 – IK10

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP 66/67

Emergency Battery Backup

Surface/Suspension Mounting and Through Wiring Version
Connection via 2 x 4 terminals.
Capacity (flexible/solid): 4 mm^2/6 mm^2 (0.0062 in^2/0.0093 in^2) — 10/8 AWG.



Unarmored Version - Bi-pin (G13):
Three M25 entries, two at one end and one at opposite end, supplied with two M25 polyamide cable glands — 8 to 18.5 mm (0.31 to 0.73") diameter — - and one M25 polyamide plug.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm^3 (in^3)	Duration (Hours)	Battery Capacity	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	Bi-pin	110/254	7.3 (16.09)	32.3 (1971.07)	3 H	4Ah	**FEB218BUTNE**	**NFEB218BUTNE**
2	36	Bi-pin	110/254	9.6 (21.16)	54.2 (3307.49)	3 H	7Ah	**FEB236BUTNE**	**NFEB236BUTNE**
2	58	Bi-pin	110/254	10.7 (23.59)	65.0 (3966.54)	3 H	7Ah	**FEB258BUTNE**	**NFEB258BUTNE**

Armored Version - Bi-pin (G13):
Two M20 threaded entries with brass earth continuity plate at one end and one M20 threaded entry with brass earth continuity plate at opposite end, supplied with one M20 polyamide plug.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm^3 (in^3)	Duration (Hours)	Battery Capacity	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	Bi-pin	110/254	7.3 (16.09)	32.3 (1971.07)	3 H	4Ah	**FEB218BUTAE**	**NFEB218BUTNE**
2	36	Bi-pin	110/254	9.6 (21.16)	54.2 (3307.49)	3 H	7Ah	**FEB236BUTAE**	**NFEB236BUTNE**
2	58	Bi-pin	110/254	10.7 (23.59)	65.0 (3966.54)	3 H	7Ah	**FEB258BUTAE**	**NFEB258BUTNE**

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A.T.X.® FE Series Nonmetallic Fluorescent Luminaires

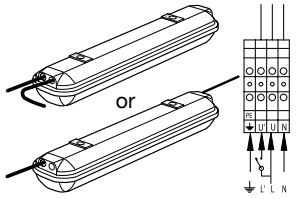
Standard and Emergency Battery Back-Up. Increased Safety

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/67 – IK10

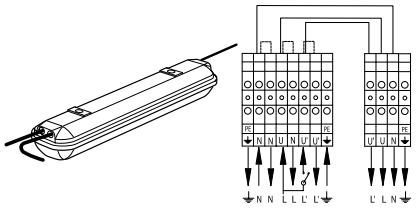
NBR IEC:
Zone 1 and 2 - 21 and 22
Ex de IIC/Ex demb IIC Gb
Ex tb IIIC Db
IP 66/67

Emergency Battery Backup

Surface/Suspension Mounting and Dual Loop In/Out Through Wiring Version (single phase)
Connection via 1 x 4 double deck terminals for 18 W version.
Connection via 1 x 8 terminals and 1 x 4 terminals for 36 W and 58 W versions.
Capacity (flexible/solid): 4 mm²/6 mm² (0.0062 in²/0.0093 in²) — 10/8 AWG.



18 W



36/58 W

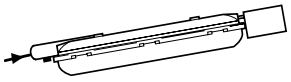
Unarmored Version - Bi-pin (G13)
Three M25 entries, two at one end and one at opposite end, supplied with two M25 polyamide cable glands — 8 to 18.5 mm (0.31 to 0.73") diameter — and one M25 polyamide plug.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Duration (Hours)	Battery Capacity	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	Bi-pin	110/254	7.6 (16.76)	32.3 (1971.07)	3 H	4Ah	**FEB218BULNE**	**NFEB218BULNE**
2	36	Bi-pin	110/254	9.9 (21.83)	54.2 (3307.49)	3 H	7Ah	**FEB236BULNE**	**NFEB236BULNE**
2	58	Bi-pin	110/254	10.7 (23.59)	65.0 (3966.54)	3 H	7Ah	**FEB258BULNE**	**NFEB258BULNE**

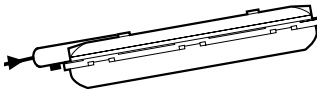
Armored Version - Bi-pin (G13)
Two M20 threaded entries with brass earth continuity plate at one end and one M20 threaded entry with brass earth continuity plate at opposite end, supplied with one M20 polyamide plug.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Duration (Hours)	Battery Capacity	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	Bi-pin	110/254	7.6 (16.76)	32.3 (1971.07)	3 H	4Ah	**FEB218BULAE**	**NFEB218BULAE**
2	36	Bi-pin	110/254	9.9 (21.83)	54.2 (3307.49)	3 H	7Ah	**FEB236BULAE**	**NFEB236BULAE**
2	58	Bi-pin	110/254	10.7 (23.59)	65.0 (3966.54)	3 H	7Ah	**FEB258BULAE**	**NFEB258BULAE**

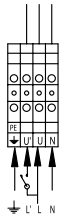
Pole Mounting Version
Connection via 1 x 4 terminals.
Capacity (flexible/solid): 4 mm²/6 mm² (0.0062 in²/0.0093 in²) — 10/8 AWG.



18 W – Actual Size 0.6 m (2')



36 W – Actual Size 1.2 m (4')



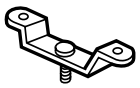
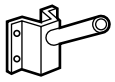
For mounting on diameter 42 mm pole or tubular wall-mounting support, supplied with one X M25 polyamide cable gland — 8 to 18.5 mm (0.31 to 0.73") diameter.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lbs)	Volume dm³ (in³)	Duration (Hours)	Battery Capacity	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
2	18	Bi-pin	110/254	10.0 (22.05)	54.2 (3307.49)	3 H	4Ah	**FEB218BUPNE** ①	**NFEB218BUPNE** ①
2	36	Bi-pin	110/254	10.4 (22.93)	54.2 (3307.49)	3 H	7Ah	**FEB236BUPNE**	**NFEB236BUPNE**

① *2 x 18 W is supplied with external battery pack (see dimensional data).*

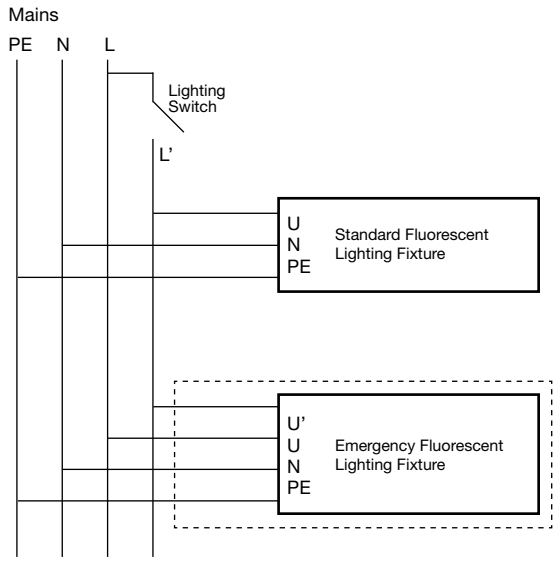
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Accessories and Replacement Parts

	Description	Catalog Number ATEX/IECEx	Catalog Number NBR IEC
Fixing Brackets			
	Set of two brackets for surface installation		
	Zinc plated steel	**FEFBZ**	**NFEFBZ**
Brackets for Surface Mounting			
	Set of two		
	316 stainless steel	**FESBS**	**NFESBS**
M8 Ring Bolts			
	Set of two		
	Zinc plated steel	**FERBM8Z**	**NFERBM8Z**
Half Clamps Brackets for Pole Mounting			
	Set of two		
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)		
	Zinc plated steel	**FEHC49Z**	**NFEHC49Z**
	316 stainless steel	**FEHC49S**	**NFEHC49S**
	Diameter for 2" pole: 60 mm (2.36 in)		
	Zinc plated steel	**FEHC60Z**	**NFEHC60Z**
	316 stainless steel	**FEHC60S**	**NFEHC60S**
Wall Mounting Adaptor			
	For pole mounting version		
	Diameter for 2" pole: 60 mm (2.36 in)		
	Galvanized steel	**FEWMG**	**NFEWMG**
Hinged Brackets			
	Set of two brackets for adjusting luminaire		
	Aluminium	**FEHBA**	**NFEHBA**
	316 stainless steel	**FEHBS**	**NFEHBS**
Fall Prevention Kit			
	Safety chain retains fixture temporarily to ease installation		
	For M25 cable entry	**FESCM25**	**NFESCM25**
	For M20 cable entry	**FESCM20**	**NFESCM20**
Adaptor for Fa8 Tube on Fa6 Lampholder			
		**096905**	—

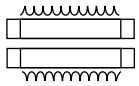
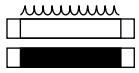
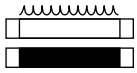
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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Wiring Diagram

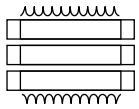
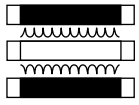
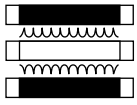


Emergency Function Diagram

Two Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

Three Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

LED Status

Color	Indication	Function
Green	LED Blinking	Mains good – Battery quick charging
	LED Continuous	Mains good – Battery trickle charging
Red	LED Blinking	No battery connected *OR* Something is defective
	LED Continuous	Mains faulty — Output ON
	LED Flashing	Mains faulty — Battery empty *OR* Lamp is defective
Yellow	LED Blinking	Mains good — Performing self test
	LED Continuous	Self test was not okay
None (Off)	No Light Emitted	No mains — Battery completely empty

Emergency Light Duration

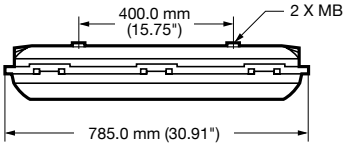
Version	Battery Capacity	Duration	Light Output
2 x 18 W	4 Ah – 6 V	90 minute	80%
	4 Ah – 6 V	3 hour	40%
2 x 36 W	7 Ah – 6 V	90 minute	45%
	7 Ah – 6 V	3 hour	25%
2 x 58 W	7 Ah – 6 V	90 minute	30%
	7 Ah – 6 V	3 hour	15%

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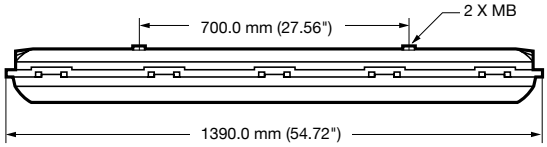
Dimensions in Millimeters (Inches)

Surface/Suspension Mounting

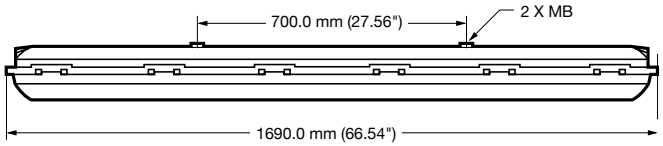
18 Watt



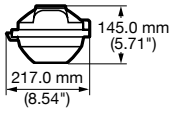
36 Watt



58 Watt

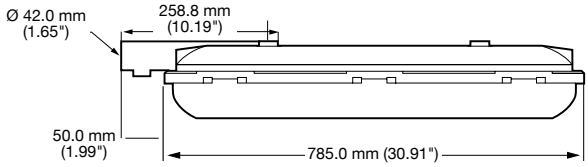


End View

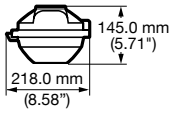


Pole Mounting

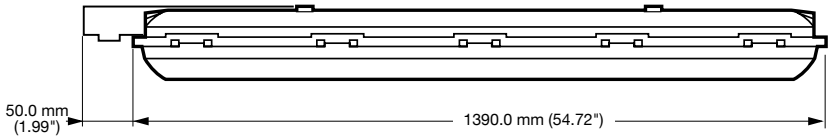
18 Watt



End View

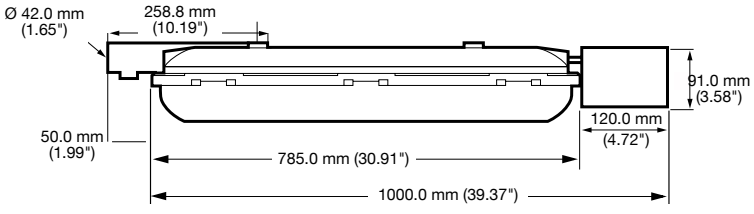


36 Watt

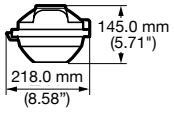


Emergency Pole Mounting

18 Watt



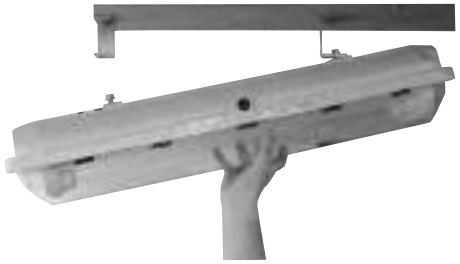
End View



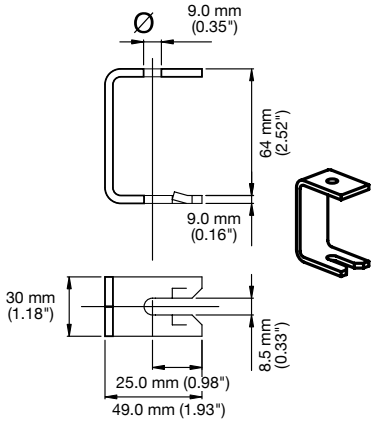
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Mounting Data

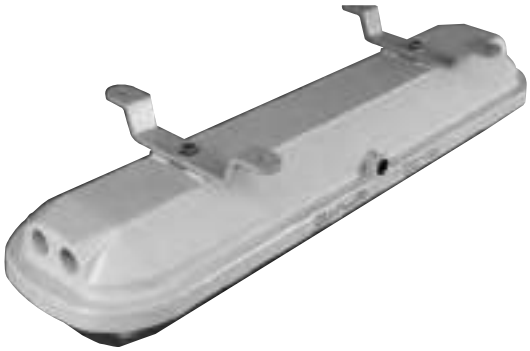
FEFBZ: zinc plated steel — Set of two quick fixing brackets for ease of surface mounting

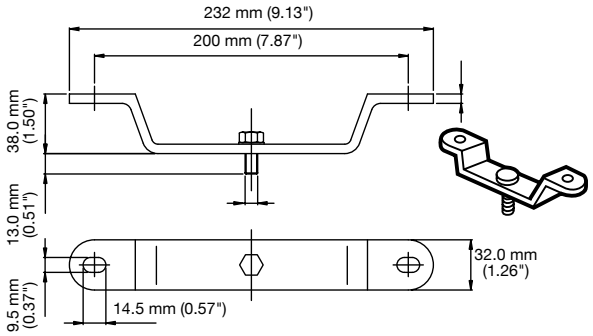






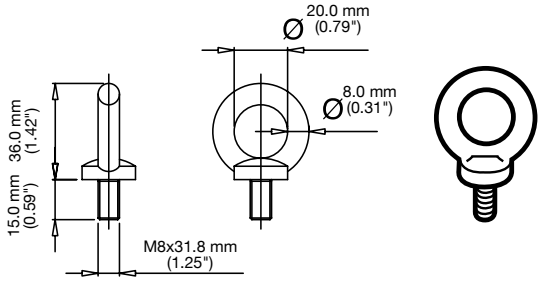
FESBS: 316 stainless steel — Set of two brackets for surface mounting





FERBM8Z: zinc plated steel — Set of two ring bolts



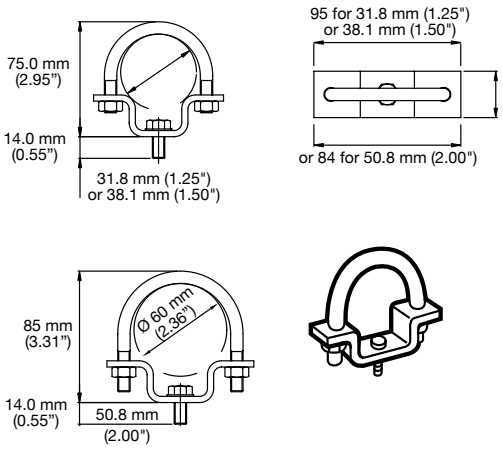


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Mounting Data

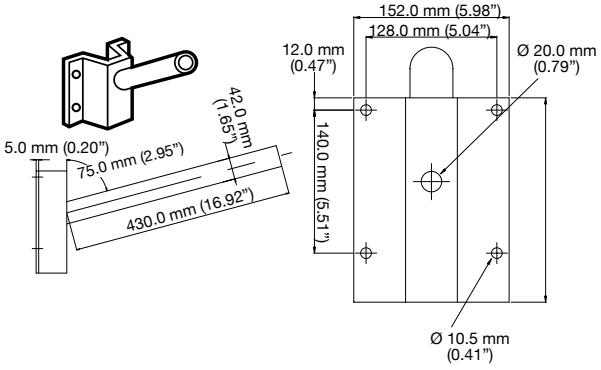
FEHC49Z: zinc plated steel or FEHC49S: 316 stainless steel — Set of two clamps for pole diameter 42 mm to 49 mm (for 1-1/4” to 1-1/2" pole).
FEHC60Z: zinc plated steel or FEHC60S: 316 stainless steel — Set of two clamps for pole diameter 60 mm (for 2” pole).



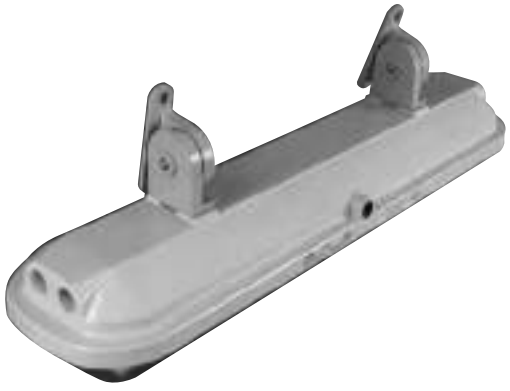


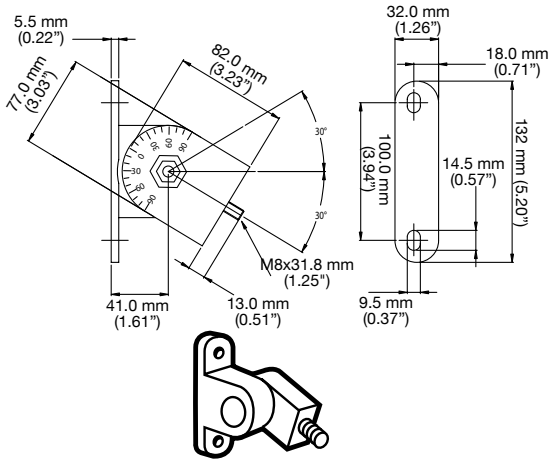
FEWMG: galvanized steel — Wall mounting pole diameter 42 mm (1-1/4”)





FEHBA: aluminum or FEHBS: 316 stainless steel — Set of two hinged brackets for adjusting luminaire.





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A.T.X.® FE Series Nonmetallic Fluorescent Luminaire Photometric Data

Standard and Emergency Battery Back-Up. Increased Safety

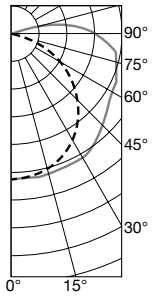
Photometric Data

Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

Longitudinal
Transverse

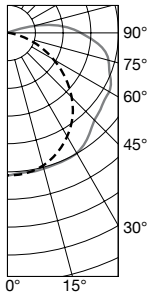
1 x 18 Watt
TOTAL LUMINAIRE EFFICIENCY = 94.8%
NF C 71–121: 0.86 H + 0.09 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	215	215
5	214	214
10	211	215
15	207	213
20	200	211
25	191	209
30	181	208
35	169	202
40	155	196
45	139	187
50	122	181
55	103	175
60	83	174
65	62	173
70	42	165



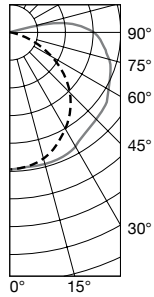
1 x 36 W
Efficiency 89.3%
NF C 71–121: 0.81 H + 0.08 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	205	205
5	204	203
10	202	203
15	197	202
20	191	201
25	182	201
30	173	200
35	161	192
40	148	183
45	133	177
50	117	173
55	99	168
60	80	168
65	61	163
70	41	154



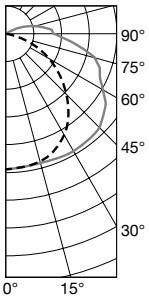
1 x 58 W
Efficiency 87.5%
NF C 71–121: 0.80 H + 0.07 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	198	198
5	197	197
10	194	198
15	190	197
20	184	195
25	176	194
30	166	193
35	155	187
40	142	180
45	128	174
50	113	170
55	96	167
60	78	163
65	59	157
70	41	151



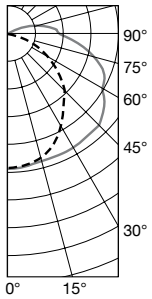
2 x 18 W
Efficiency 85.1%
NF C 71–121: 0.78 H + 0.08 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	195	195
5	195	194
10	192	192
15	187	192
20	181	193
25	173	194
30	163	194
35	152	193
40	138	192
45	124	191
50	108	183
55	91	176
60	73	163
65	55	150
70	37	145



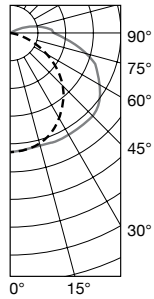
2 x 36 W
Efficiency 80.5%
NF C 71–121: 0.73 H + 0.07 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	185	185
5	185	184
10	182	182
15	178	181
20	172	183
25	164	183
30	154	183
35	143	183
40	131	183
45	117	179
50	102	173
55	85	166
60	68	155
65	51	145
70	35	141



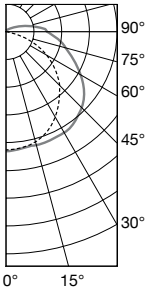
2 x 58 W
Efficiency 76.9%
NF C 71–121: 0.70 H + 0.07 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	173	173
5	172	173
10	170	171
15	166	169
20	161	172
25	154	172
30	145	172
35	135	171
40	123	172
45	111	170
50	97	165
55	82	157
60	66	148
65	50	139
70	34	133



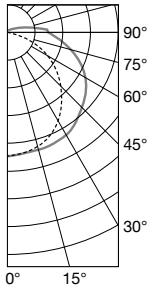
3 x 18 W
Efficiency 68.1%
NF C 71–121: 0.63 G + 0.05 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	173	173
5	172	172
10	169	170
15	135	169
20	160	169
25	153	168
30	144	167
35	135	162
40	123	158
45	110	153
50	96	146
55	82	136
60	66	123
65	50	111
70	34	100



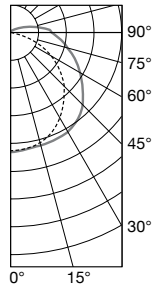
3 x 36 W
Efficiency 68.1%
NF C 71–121: 0.63 G + 0.07 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	174	174
5	174	174
10	171	173
15	167	171
20	162	171
25	155	170
30	146	168
35	136	163
40	125	159
45	112	153
50	98	145
55	83	135
60	67	123
65	51	110
70	35	100



3 x 58 W
Efficiency 65.6%
NF C 71–121: 0.61 H + 0.04 T

CANDELA DISTRIBUTION		
	0–180	90–270
0	170	170
5	170	170
10	167	168
15	163	169
20	158	167
25	151	167
30	143	163
35	133	159
40	122	155
45	109	149
50	95	140
55	81	129
60	65	116
65	49	105
70	33	96



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A.T.X.® FDES Series Self–Contained Emergency Lighting Units

Flameproof. Fluorescent

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/68 - IK08

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB+H_2/Ex d IIC Gb
Ex tb IIIC Db
IP66/68

Applications

- Provides adequate lighting and/or visual indication of access on exit routes during an emergency evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- Typical applications include oil refineries, petrochemical plants, pulp and paper mills.

Features

- Power supply from 110 to 240 Vac 50/60 Hz versions.
- 3-hour duration.
- Threaded access cover with O-ring seal.
- Operates in any position.
- 8 W Fluorescent (1 or 2 lamps supplied).
- Charge indicator by 1 red LED (life time over 10 years).
- Termination 3 or 4 x 2.5 mm² (0.005 or 0.006 x 0.004 in²) terminals.
- Supplied with two fixing lugs.

Standard Materials

- End caps and cover: aluminum
- O-ring seal: Nitrile
- Lens: tempered borosilicate glass
- Fixing brackets: zinc plated steel or 316 stainless steel
- Accessories: white painted galvanized steel
- Guard: zinc plated steel

ATEX/IECEx Certifications and Compliances

- Certification Type: FLd
  - — Gas: Zone 1 - 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex d IIC
    - – T Rating: T6
  - — Dust: Zone 21 - 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: T80 °C (T176 °F)
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- CE Declaration of Conformity: 50203
- ATEX Certificate: LCIE 97/ ATEX 6012
- IECEx Certificate: IECEx LCI 04.0018
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66/68
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm³ (122 in³)- 2 liters
- Ex standards: EN/IEC 60079-0; 60079-1; 61241-0; 61241-1
- Product standards: EN/IEC 60598-1; 60598-2-22
- EMC standards: EN/IEC 55015; 61547
- Other standards: EN/IEC 60529 (IP); 62262 (IK)



2 x 8 W Fluorescent Sustained

NBR IEC Brazilian Certifications and Compliances

- Certification Type: FLd
  - — Gas: Zone 1 and 2:
    - – IEC Marking: Ex d IIB+H_2/Ex d IIC Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
- Ambient temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- Ingress Protection: IP66/68
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0492
- Impact Resistance (shock): IK08
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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A.T.X.® FDES Series Self–Contained Emergency Lighting Units

Flameproof. Fluorescent

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/68 - IK08

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB+H_2/Ex d IIC Gb
Ex tb IIIC Db
IP66/68

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — FDES Series Self-Contained Emergency Units

FDES **1** **08** **1** **N**

Series:
FDES - FDES Series
Zone 1 and 2 – 21 and 22
ATEX/IEC Certified

N FDES - FDES Series
Zone 1 and 2 – 21 and 22
NBR IEC Certified

Number of Lamps:
1 - One Lamp
2 - Two Lamp

Lamp Wattage:
08 - 8 Watt Fluorescent

Voltage:
1 - 110 Vac, 50/60 Hz
2 - 127 Vac, 50/60 Hz
3 - 230/240 Vac, 50/60 Hz
4 - 230/240 Vac, 50 Hz
5 - 220 Vac, 60 Hz ①

Version:
N - Non-Maintained
M - Maintained
S - Sustained

3 Hour Duration — Two M20 Threaded Cable Entries With One M20 Blanking Plug

Type	Lumen Output	Voltage	Frequency	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
1 x 8 W Fluorescent Non-Maintained	230 lm	230/240 Vac	50/60 Hz	7.8 (17.20)	36 (2196.9)	**FDES1083N**	**NFDES1083N**
		127 Vac	50/60 Hz			**FDES1082N**	**NFDES1082N**
		110 Vac	50/60 Hz			**FDES1081N**	**NFDES1081N**
		220 Vac	60 Hz			—	**NFDES1085N**
1 x 8 W Fluorescent Maintained	180 lm	230/240 Vac	50/60 Hz	7.8 (17.20)	36 (2196.9)	**FDES1084M**	**NFDES1084M**
		127 Vac	50/60 Hz			**FDES1082M**	**NFDES1082M**
		110 Vac	50/60 Hz			**FDES1081M**	**NFDES1081M**
		220 Vac	60 Hz			—	**NFDES1085M**
2 x 8 W Fluorescent Sustained	230 lm	230/240 Vac	50 Hz	7.8 (17.20)	36 (2196.9)	**FDES2084S**	**NFDES2084S**
		220 Vac	60 Hz			—	**NFDES2085S**

① *Available for NBR IEC governed locations only.*

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A.T.X.® FDES Series Self–Contained Emergency Lighting Units

Flameproof. Fluorescent

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/68 - IK08

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB+H_2/Ex d IIC Gb
Ex tb IIIC Db
IP66/68

Accessories and Replacement Parts

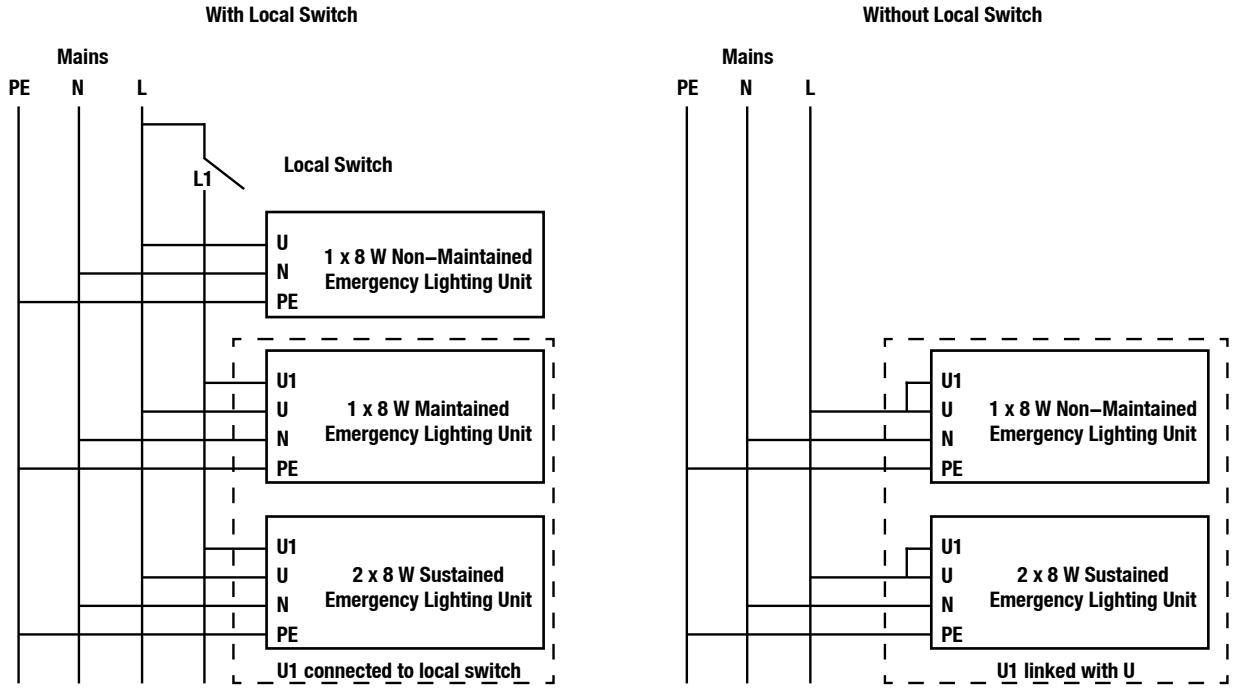
	Description	Catalog Number IECEx	Catalog Number NBR IEC
	**Reflector**		
	White painted galvanized steel	**FDER1G**	**NFDER1G**
	**Protective Guard**		
	Zinc plated steel	**FDPG1Z**	**NFDPG1Z**
	**Fixing Brackets: Set of two for ease of surface installation**		
	Zinc plated steel	**FDFBZ**	**NFDFBZ**
	316 stainless steel	**FDFBS**	**NFDFBS**
	**Surface Mounting Brackets: Set of two**		
	Zinc plated steel	**FDSBZ**	**NFDSBZ**
	316 stainless steel	**FDSBS**	**NFDSBS**
	**Half Clamps: Set of two**		
	Zinc plated steel versions:		
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)	**FDHC49Z**	**NFDHC49Z**
	Diameter for 2" pole: 60 mm (2.36 in)	**FDHC60Z**	**NFDHC60Z**
	316 stainless steel versions:		
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)	**FDHC49S**	**NFDHC49S**
	Diameter for 2" pole: 60 mm (2.36 in)	**FDHC60S**	**NFDHC60S**
	**Spare Lamps**		
	8 W fluorescent G5	**LF008G5**	—
	Fall Prevention Kit		
	1.20 m (3.94 ft) stainless steel chain	**FDSCS**	—

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A.T.X.® FDES Series Self–Contained Emergency Lighting Unit Technical Data

Flameproof. Fluorescent

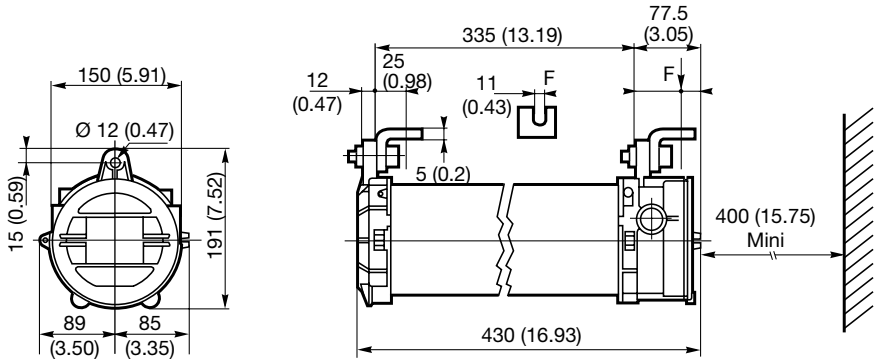
Electrical Wiring Diagram



Emergency Function Diagram

Mains	1 x 8W Non–Maintained	1 x 8 W Maintained		2 x 8 W Sustained	
		Local Switch OFF or No Link	Local Switch ON or Link Present	Local Switch OFF or No Link	Local Switch ON or Link Present
Switched ON					
Switched OFF					

Dimensions in Millimeters (Inches)



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Nutsteel® NE851 Series Emergency Luminaires

Explosionproof. Compact Fluorescent

With battery back up.

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

Applications

- For installation in areas where there is risk of explosion.
- Typical applications include: chemicals, petrochemicals, paint and varnish, pharmaceuticals, food products, paint booths, flammable material storage facilities, etc.

Features

- Manufactured in seven models: pendant, ceiling, 30° wall, 45° wall, 90° wall, 30° stanchion, and 90° stanchion.
- 100 minute emergency battery back up for 26 Watt version.
- Electronic module: 220 Vac ± 10% 60 Hz.
- High Power factor: > 0.99.
- Battery: 4 Ah, 6V.
- Supplied with guard.
- NPT threads standard.
- Optional NTREA reflector is lightweight, durable and corrosion-resistant.
- Lamp not supplied.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.

Standard Materials

- Mounting hood, ballast body and guard: copperfree aluminum alloy
- Globe: thermal shock and impact resistant borosilicate glass
- Socket: plastic
- Screws and washers: AISI 304 stainless steel
- Optional NTREA reflector: anodized aluminum

Standard Finish

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- INMETRO Certificate: TÜV 11.0022-X
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

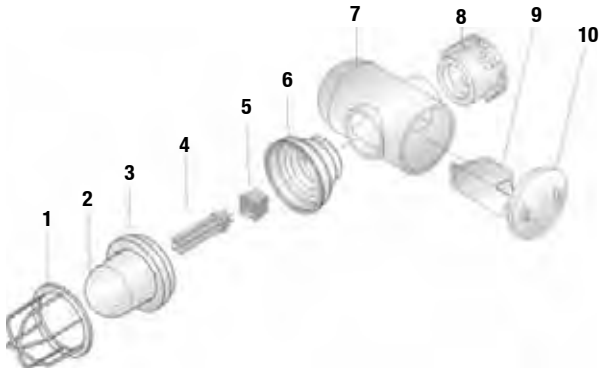


Ceiling Mount



Optional NTREA Reflector

Technical Features



1 – Guard
2 – Glass globe
3 – Fixing ring
4 – Lamp
5 – Lamp holder
6 – Globe base
7 – Ballast housing
8 – Mounting hood
9 – Ballast + Battery + Module
10 – Ballast cover

Warning*: Do not use any other lamp than the one specified, at the risk of explosion. In order not to compromise safety, use only genuine parts.*

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Explosionproof. Compact Fluorescent

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NBR IEC:
Zone 1 and 2 – 21 and 22
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Ex tb IIIC Db
IP66

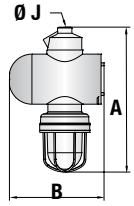
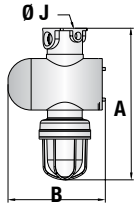
Order using catalog numbering guide below or select catalog number from tables below and on following pages.

Catalog Numbering Guide

NE851 **A** **N** **1** **F** **26** **B** **A** **A**

- **NE851** — Series: NE851 - NE851 Series, Zone 1, 2, 21, 22, NBR IEC Certified
- **A** — Mounting: A - Pendant; B - Ceiling; C - 30° Wall; D - 45° Wall; E - 90° Wall; F - 30° Stanchion; H - 90° Stanchion
- **N** — Thread: N - NPT; B - BSP; M - Metric
- **1** — Luminaire Size: 1 - Size 1
- **F** — Lamp Type: F - Compact Fluorescent
- **26** — Wattage: 26 - 26 W; 32 - 32 W; 42 - 42 W
- **B** — Optional Reflector: B — Size 1
- **A** — Optional Reflector Material: A- Aluminum; F - porcelain Steel
- **A** — Optional Reflector Sizes: 1 - Shallow; 2 - Standard; 3 - Deep; 4 - Angle

Lamp	Wattage	Temperature Class +40 °C (+104 °F)	Temperature Class +55 °C (+131 °F)
Compact Fluorescent 4 Pin	26	T6	T6
	32	T6	T6
	42	T6	T6

		Wattage	Socket ①	Dimensions mm (in) A	Dimensions mm (in) ØB	Dimensions mm (in) ØJ ②	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ③④
Pendant		26	GX24Q	514 (20.24)	236 (9.29)	3/4”	9.06 (19.97)	22.68 (1384.0)	**NE851AN1F26**
		32	GX24Q	514 (20.24)	236 (9.29)	3/4”	9.06 (19.97)	22.68 (1384.0)	**NE851AN1F32**
		42	GX24Q	514 (20.24)	236 (9.29)	3/4”	9.06 (19.97)	22.68 (1384.0)	**NE851AN1F42**
Ceiling		26	GX24Q	502 (19.76)	236 (9.29)	3/4”	9.50 (20.94)	22.15 (1351.7)	**NE851BN1F26**
		32	GX24Q	502 (19.76)	236 (9.29)	3/4”	9.50 (20.94)	22.15 (1351.7)	**NE851BN1F32**
		42	GX24Q	502 (19.76)	236 (9.29)	3/4”	9.50 (20.94)	22.15 (1351.7)	**NE851BN1F42**

① Supplied with lamp holder for lamps 4 pins.
② Ø J: Four threads entries for models: NE851B, NE851C, NE851D and NE851E and one threaded entry form models NE851A, NE851F e NE851H.
③ Philips Compact Fluorescent lamps are recommended. (Philips is a registered trademark of Koninklijke Philips N.V.)
① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NE851A**B**1F26.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NE851A**M**1F26.*

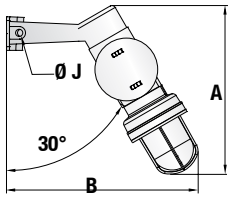
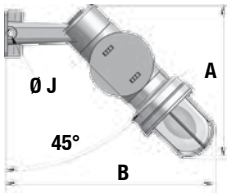
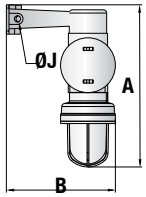
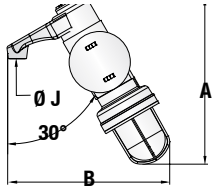
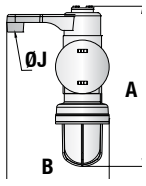
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Nutsteel® NE851 Series Emergency Luminaires

Explosionproof. Compact Fluorescent

With battery back up.

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

		Wattage	Socket ①	Dimensions mm (in) A	ØB	ØJ ②	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ③④
30° Wall		26	GX24Q	542 (21.34)	476 (18.74)	3/4”	10.78 (23.77)	48.24 (2943.8)	**NE851CN1F26**
		32	GX24Q	542 (21.34)	476 (18.74)	3/4”	10.78 (23.77)	48.24 (2943.8)	**NE851CN1F32**
		42	GX24Q	542 (21.34)	476 (18.74)	3/4”	10.78 (23.77)	48.24 (2943.8)	**NE851CN1F42**
45° Wall		26	GX24Q	420 (16.54)	637 (25.08)	3/4"	11.34 (25)	40.58 (2476.3)	**NE851DN1F26**
		32	GX24Q	420 (16.54)	637 (25.08)	3/4"	11.34 (25)	40.58 (2476.3)	**NE851DN1F32**
		42	GX24Q	420 (16.54)	637 (25.08)	3/4"	11.34 (25)	40.58 (2476.3)	**NE851DN1F42**
90° Wall		26	GX24Q	532 (20.94)	408 (16.06)	3/4”	11.34 (25.00)	40.58 (2476.3)	**NE851EN1F26**
		32	GX24Q	532 (20.94)	408 (16.06)	3/4”	11.34 (25.00)	40.58 (2476.3)	**NE851EN1F32**
		42	GX24Q	532 (20.94)	408 (16.06)	3/4”	11.34 (25.00)	40.58 (2476.3)	**NE851EN1F42**
30° Stanchion		26	GX24Q	472 (18.58)	445 (17.52)	1-1/2”	9.41 (20.75)	39.27 (2396.4)	**NE851FN1F26**
		32	GX24Q	472 (18.58)	445 (17.52)	1-1/2”	9.41 (20.75)	39.27 (2396.4)	**NE851FN1F32**
		42	GX24Q	472 (18.58)	445 (17.52)	1-1/2”	9.41 (20.75)	39.27 (2396.4)	**NE851FN1F42**
90° Stanchion		26	GX24Q	524 (20.63)	398 (15.67)	1-1/2”	9.60 (21.16)	38.99 (2379.3)	**NE851HN1F26**
		32	GX24Q	524 (20.63)	398 (15.67)	1-1/2”	9.60 (21.16)	38.99 (2379.3)	**NE851HN1F32**
		42	GX24Q	524 (20.63)	398 (15.67)	1-1/2”	9.60 (21.16)	38.99 (2379.3)	**NE851HN1F42**

① Supplied with lamp holder for lamps 4 pins.
② Ø J: Four threads entries for models: NE851B, NE851C, NE851D and NE851E and one threaded entry form models NE851A, NE851F e NE851H.
③ Philips Compact Fluorescent lamps are recommended. (Philips is a registered trademark of Koninklijke Philips N.V.)
① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NE851A**B**1F26.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NE851A**M**1F26.*

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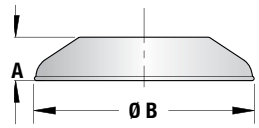
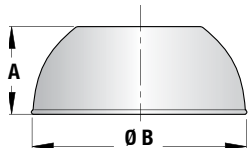
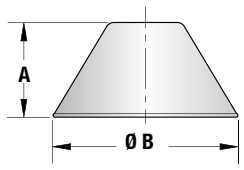
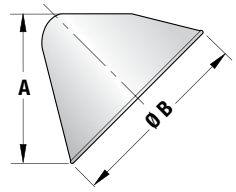
Nutsteel® NE851 Series Emergency Luminaires

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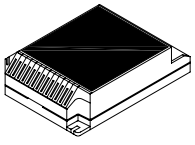
With battery back up.

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

Reflectors

	Luminaire Type		Dimensions mm (in) A	Ø B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Shallow Dome							
	NE851AN1 NE851BN1 NE851CN1 NE851DN1	NE851EN1 NE851FN1 NE851HN1	65 (2.56)	365 (14.37)	0.78 (1.72)	10.90 (665.2)	**NTREA104**
Standard Dome							
	NE851AN1 NE851BN1 NE851CN1 NE851DN1	NE851EN1 NE851FN1 NE851HN1	110 (4.33)	370 (14.57)	0.85 (1.87)	18.2 (1110.6)	**NTREA202**
Deep Dome							
	NE851AN1 NE851BN1 NE851CN1 NE851DN1	NE851EN1 NE851FN1 NE851HN1	115 (4.53)	247 (9.72)	0.43 (0.95)	9.1 (555.3)	**NTREA304**
Angled							
	NE851AN1 NE851BN1 NE851CN1 NE851DN1	NE851EN1 NE851FN1 NE851HN1	165 (6.50)	270 (10.63)	0.44 (0.97)	10.5 (640.7)	**NTREA404**

High Power Ballast — 220 Vac ± 10% 60 Hz — For Use With Any Mounting Hood

	Description	Catalog Number
	Compact Fluorescent 26 W	**NFCH851EF26**
	Compact Fluorescent 32 W	**NFCH851EF32**
	Compact Fluorescent 42 W	**NFCH851EF42**

① *For NEREA reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position; example: NERE**F**103.*

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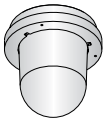
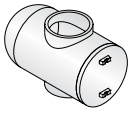
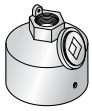
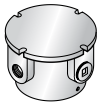
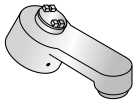
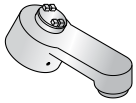
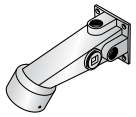
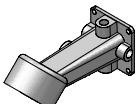
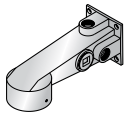
Nutsteel® NE851 Series Emergency Luminaires

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With battery back up.

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
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Accessories and Replacement Parts

	Description	Luminaire Type				Catalog Number
	Protective guard	NE851AN1 NE851BN1	NE851CN1 NE851DN1	NE851EN1 NE851FN1	NE851HN1	**NFGRD851E**
	Light fixture assembly (Borosilicate globe + Fixing ring + Glass support)	NE851AN1 NE851BN1	NE851CN1 NE851DN1	NE851EN1 NE851FN1	NE851HN1	**NECJT851E**
	Ballast housing	NE851A NE851B	NE851C NE851D	NE851E NE851F	NE851H	**NFALJ850E**
	Pendant mounting bracket	NE851A		3/4" NPT Bracket		**NFACS85AN**
				3/4"BSP Bracket		**NFACS85AB**
				M25 Bracket		**NFACS85AM**
				1 - 1/4" NPT Plug		**NEBJS04N**
	Ceiling mounting bracket with 3 threaded entries	NE851B		3/4" NPT Bracket		**NFACS85BN**
				3/4"BSP Bracket		**NFACS85BB**
				M25 Bracket		**NFACS85BM**
				1 - 1/4" NPT Plug		**NEBJS04N**
	30° Stanchion mounting bracket for mounting on pole	NE851F		1-1/2" NPT Bracket		**NFACS25FN**
				1-1/2" BSP Bracket		**NFACS25FB**
				M50 Bracket		**NFACS25FM**
				Inspection Cover		**NFTAMIE**
	90° Stanchion mounting bracket for mounting on pole	NE851H		1-1/2" NPT Bracket		**NFACS25HN**
				1-1/2" BSP Bracket		**NFACS25HB**
				M50 Bracket		**NFACS25HM**
				Inspection Cover		**NFTAMIE**
	30° Wall type mounting bracket for mounting on wall	NE851C		3/4" NPT Bracket		**NFACS25CN**
				3/4"BSP Bracket		**NFACS25CB**
				M25 Bracket		**NFACS25CM**
				1 - 1/4" NPT Plug		**NEBJS05N**
	45° Wall type mounting bracket for mounting on wall	NE851D		3/4" NPT Bracket		**NFACS25DN**
				3/4"BSP Bracket		**NFACS25DB**
				M25 Bracket		**NFACS25DM**
				1 - 1/4" NPT Plug		**NEBJS05N**
	90° Wall mounting bracket for mounting on wall	NE851E		3/4" NPT Bracket		**NFACS25EN**
				3/4"BSP Bracket		**NFACS25EB**
				M25 Bracket		**NFACS25EM**
				1 - 1/4" NPT Plug		**NEBJS05N**

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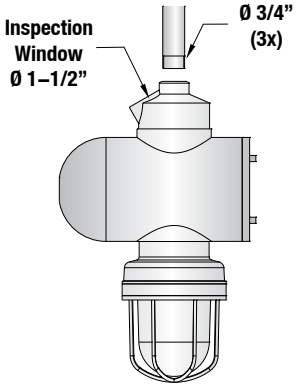
Nutsteel® NE851 Series Emergency Luminaires

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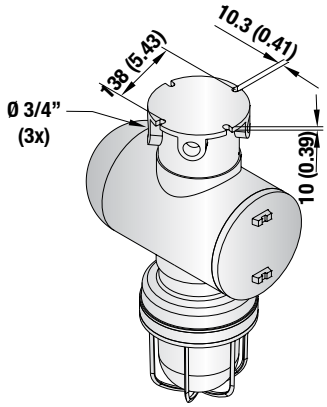
With battery back up.

Mounting Details ① — Dimensions in Millimeters (Inches)

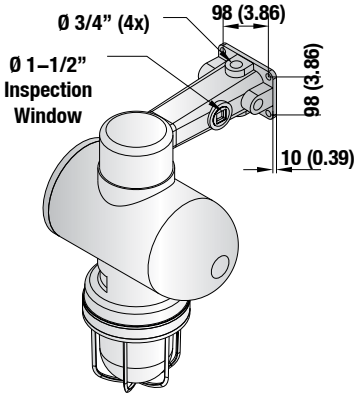
NE851A — Pendant



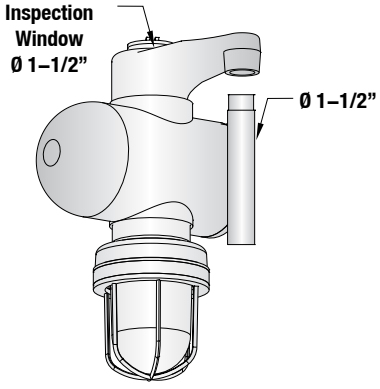
NE851B — Ceiling



NE851C, D, E — Wall

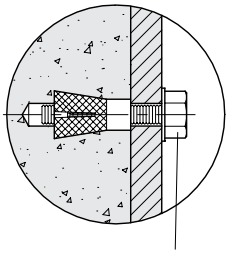


NE851F, H — Stanchion



For Affixing to Concrete

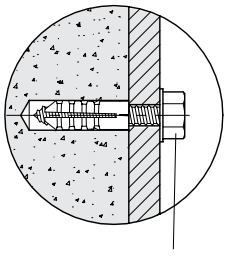
Steel anchor bolt (not included)



Screw Ø 3/8”

For Affixing to Masonry

Nylon bushing (not included)



Screw Ø 3/8"

① *In installations with conduit, it is recommended to use a sealing fitting, for all conduit outlets.*

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Nutsteel® NT850–N Series Luminaires

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Applications

- Suitable for use in environments containing moisture, non-flammable gases and vapors.
- Areas of low clearance, with low ceilings or areas in which the weight of the luminaire should be minimal.
- Typical applications include:
  - — Engine room lighting
  - — Industrial kitchens
  - — Washing boxes
  - — Electroplating facilities
  - — Refrigeration facilities
  - — Docks
  - — Walkways
  - — Bridges
  - — Tunnels
  - — Parking lots

Features

- Compact, light weight, low profile design is suited for low mounting heights.
- Manufactured in six models:
  - — Ceiling, 30° wall and 90° wall mounts have four threaded entries.
  - — Pendant, 30° stanchion and 90° stanchion have one threaded entry.
- Voltage: 127-277 V, 50/60 Hz; 125 Vcc for 26 W.
- Impact and thermal shock-resistant globe threads directly into ballast housing.
- Ballast with high power factor > 0.99.
- Supplied with ballast mounted.
- Socket model GX24Q for lamp with 4 pins.
- Supplied with guard.
- NPT threads standard. BSP and metric threads available.
- Optional NEREA reflector is lightweight, durable and corrosion-resistant.
- Lamp not supplied.

Standard Material

- Body and guard: copperfree cast aluminum alloy
- Globe: impact and thermal shock-resistant threaded glass
- Socket: plastic
- Gasket: silicone
- Screws and washers: external fixation of AISI 304 stainless steel
- NEREA reflector: anodized aluminum

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure



Pendant Mount



Optional NEREA Reflector

Options

- For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT850A**B**2F26N**.**
- For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT850A**M**2F26N**.**
- For an option reflector add letter **E** for size 2 to the end of the catalog number; example: NT850AN2F26N**E**.
- For an aluminum reflector add letter **A** or porcelain steel add letter **F** to the end of the catalog number; example: NT850AN2F26NE**A**.
- For shallow reflector add number **1**, for a standard reflector add number **2**, for a deep reflector add number **3** or for an angled reflector add number **4** to the end of the catalog number; example: NT850AN2F26NEA**1**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- Other Standards: ABNT NBR IEC 60529 (IP)

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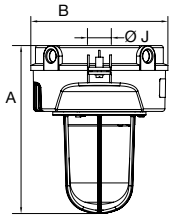
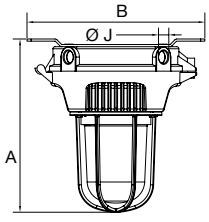
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Order using catalog numbering guide below or select catalog number from tables below and on following pages.

Catalog Numbering Guide

NT850 **A** **N** **2** **F** **26** **N** **E** **A** **1**

- **NT850**: Series: NT850 - NT850N Series, NBR IEC Certified
- **A**: Mounting: A - Pendant; B - Ceiling; C - 30° Wall; E - 90° Wall; F - 30° Stanchion; H - 90° Stanchion
- **N**: Thread: N - NPT; B - BSP; M - Metric
- **2**: Luminaire Size: 2 - Size 2
- **F**: Lamp Type: F - Compact Fluorescent
- **26**: Wattage: 26 - 26 W; 32 - 32 W; 42 - 42 W
- **N**: N - New Generation
- **E**: Optional Reflector Type: E - For size 2
- **A**: Optional Reflector Material: A- Aluminum; F - Porcelain Steel
- **1**: Optional Reflector Sizes: 1 - Shallow; 2 - Standard; 3 - Deep; 4 - Angle

	Wattage	Socket	Threaded Entries Ø J ①	Dimensions mm (in) A	Dimensions mm (in) B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①②
Pendant								
NT850A–N 	26	GX24Q	3/4”	372 (14.65)	330 (12.99)	5.05 (2.29)	45.40 (2770.48)	**NT850AN2F26N**
	32	GX24Q	3/4”	372 (14.65)	330 (12.99)	5.05 (2.29)	45.40 (2770.48)	**NT850AN2F32N**
	42	GX24Q	3/4”	372 (14.65)	330 (12.99)	5.05 (2.29)	45.40 (2770.48)	**NT850AN2F42N**
Ceiling								
NT850B–N 	26	GX24Q	3/4”	390 (15.35)	420 (16.54)	5.22 (2.37)	45.40 (2770.48)	**NT850BN2F26N**
	32	GX24Q	3/4”	390 (15.35)	420 (16.54)	5.22 (2.37)	45.40 (2770.48)	**NT850BN2F32N**
	42	GX24Q	3/4”	390 (15.35)	420 (16.54)	5.22 (2.37)	45.40 (2770.48)	**NT850BN2F42N**

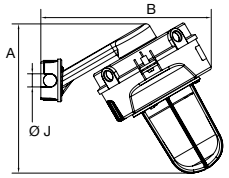
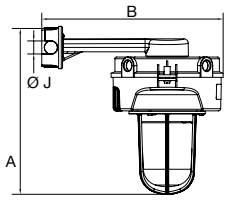
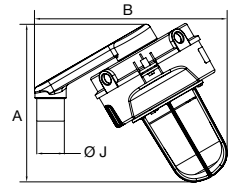
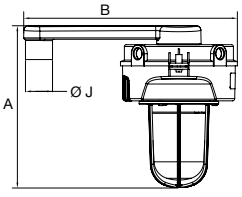
① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT850A**B**2F26N.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT850A**M**2F26N.*
*② For an option reflector add letter **E** for size 2 to the end of the catalog number; example: NT850AN2F26N**E**.*
*For an aluminum reflector add letter **A** or porcelain steel add letter **F** to the end of the catalog number; example: NT850AN2F26NE**A**.*
*For shallow reflector add number **1**, for a standard reflector add number **2**, for a deep reflector add number **3** or for an angled reflector add number **4** to the end of the catalog number; example: NT850AN2F26NEA**1**.*

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	Wattage	Socket	Threaded Entries Ø J ①	Dimensions mm (in) A	B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①②
30° Wall								
NT850C–N								
	26	GX24Q	3/4”	397 (15.63)	456 (17.95)	5.77 (2.62)	48.31 (2948.06)	**NT850CN2F26N**
	32	GX24Q	3/4”	397 (15.63)	456 (17.95)	5.77 (2.62)	48.31 (2948.06)	**NT850CN2F32N**
	42	GX24Q	3/4”	397 (15.63)	456 (17.95)	5.77 (2.62)	48.31 (2948.06)	**NT850CN2F42N**
90° Wall								
NT850E–N								
	26	GX24Q	3/4”	444 (17.48)	455 (17.91)	5.87 (2.66)	48.69 (2971.25)	**NT850EN2F26N**
	32	GX24Q	3/4”	444 (17.48)	455 (17.91)	5.87 (2.66)	48.69 (2971.25)	**NT850EN2F32N**
	42	GX24Q	3/4”	444 (17.48)	455 (17.91)	5.87 (2.66)	48.69 (2971.25)	**NT850EN2F42N**
30° Stanchion								
NT850F–N								
	26	GX24Q	1-1/2”	415 (16.34)	457 (17.99)	5.82 (2.64)	48.15 (2938.29)	**NT850FN2F26N**
	32	GX24Q	1-1/2”	415 (16.34)	457 (17.99)	5.82 (2.64)	48.15 (2938.29)	**NT850FN2F32N**
	42	GX24Q	1-1/2”	415 (16.34)	457 (17.99)	5.82 (2.64)	48.15 (2938.29)	**NT850FN2F42N**
90° Stanchion								
NT850H–N								
	26	GX24Q	1-1/2”	415 (16.34)	509 (20.04)	5.94 (2.69)	48.64 (2968.19)	**NT850HN2F26N**
	32	GX24Q	1-1/2”	415 (16.34)	509 (20.04)	5.94 (2.69)	48.64 (2968.19)	**NT850HN2F32N**
	42	GX24Q	1-1/2”	415 (16.34)	509 (20.04)	5.94 (2.69)	48.64 (2968.19)	**NT850HN2F42N**

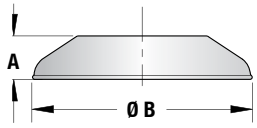
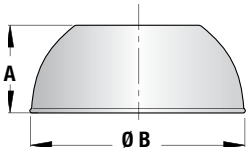
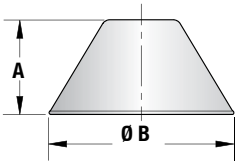
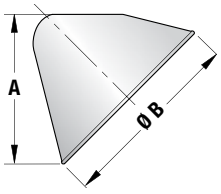
① The 3/4" threaded entries can be replaced by M25; and the 1-1/2" threaded entries can be replaced by M50.
*For BSP threads, replace the letter **N** with the letter **B** in the 7th position; example: NT850A**B**2F26N.*
*For metric threads, replace the letter **N** with the letter **M** in the 7th position; example: NT850A**M**2F26N.*
*② For an option reflector add letter **E** for size 2 to the end of the catalog number; example: NT850AN2F26N**E**.*
*For an aluminum reflector add letter **A** or porcelain steel add letter **F** to the end of the catalog number; example: NT850AN2F26NE**A**.*
*For shallow reflector add number **1**, for a standard reflector add number **2**, for a deep reflector add number **3** or for an angled reflector add number **4** to the end of the catalog number; example: NT850AN2F26NEA**1**.*

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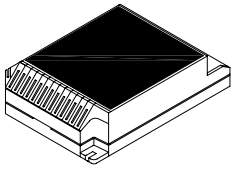
Nutsteel® NT850–N Series Luminaires

Industrial. Weatherproof. Watertight. Compact Fluorescent

Reflectors

	Luminaire Type			Dimensions mm (in) A	Dimensions mm (in) Ø B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ①
Shallow Dome								
	NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	78 (3.07)	410 (16.14)	0.72 (1.59)	13.00 (793.31)	**NEREA104**
Standard Dome								
	NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	135 (5.31)	410 (16.14)	0.68 (1.50)	21.80 (1330.32)	**NEREA204**
Deep Dome								
	NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	210 (8.27)	410 (16.14)	0.89 (1.96)	35.30 (2154.14)	**NEREA304**
Angle								
	NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	260 (10.24)	410 (16.14)	0.95 (2.09)	51.00 (3112.21)	**NEREA404**

High Power Factor Ballast (60 Hz) — For Use With Any Mounting Hood

	Description	Catalog Number
	Ballast for 26 W Lamp	**NFCHT850F26**
	Ballast for 32 W Lamp	**NFCHN850F32**
	Ballast for 42 W Lamp	**NFCHN850F42**

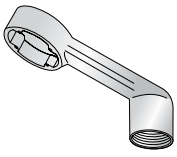
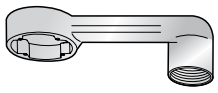
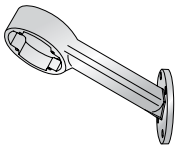
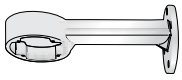
① *For reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position. Example: NERE**F**104.*

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Nutsteel® NT850–N Series Luminaires

Industrial. Weatherproof. Watertight. Compact Fluorescent

Accessories and Replacement Parts

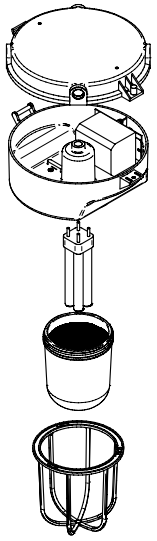
	Description	Luminaire Type			Catalog Number
	Protective Guard	NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	**NFGRD852TN**
	Glass Globe	NT850AN2-N NT850EN2-N	NT850BN2-N NT850FN2-N	NT850CN2-N NT850HN2-N	**NXGLBN850N2**
	Mounting Hood with 4 Entries	NT850C-N		3/4" NPT	**NFCXA85TN**
				3/4" BSP	**NFCXA85TB**
		NT850E-N		M25	**NFCXA85TM**
	30° Stanchion Mounting Bracket	NT850F-N		1-1/2" NPT	**NFPES85FTN**
				1-1/2" BSP	**NFPES85FTB**
				M50	**NFPES85FTM**
	90° Stanchion Mounting Bracket	NT850H-N		1-1/2" NPT	**NFPES85HTN**
				1-1/2" BSP	**NFPES85HTB**
				M50	**NFPES85HTM**
	30° Wall Mounting Bracket	NT850C-N			**NFPES85CTN**
	90° Wall Mounting Bracket	NT850E-N			**NFPES85ETN**

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Nutsteel® NT850–N Series Luminaires

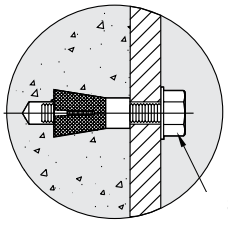
Industrial. Weatherproof. Watertight. Compact Fluorescent

Installation and Maintenance



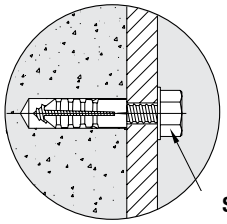
For Affixing to Concrete

Steel anchor bolt (not included)



For Affixing to Masonry

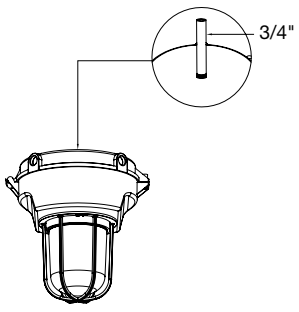
Nylon bushing (not included)



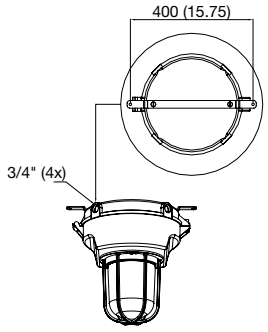
Note: Equipment for installation in explosive atmospheres (Zone 2) is supplied assembled with their ballast to retain equipment certification.

Mounting Details ① — Dimensions in Millimeters (Inches)

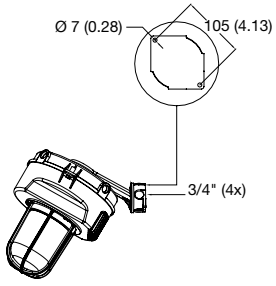
NT850A–N — Pendant



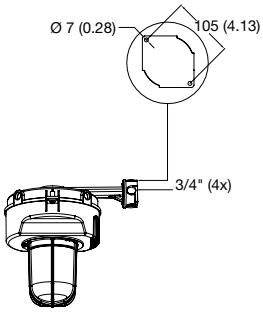
NT850B–N — Ceiling



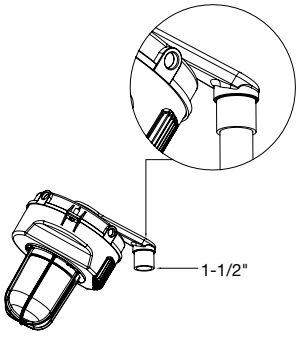
NT850C–N — 30° Wall



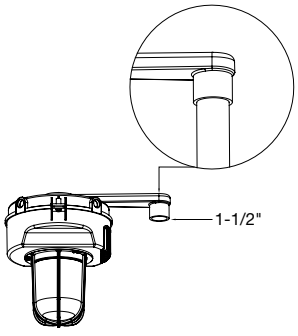
NT850E–N — 90° Wall



NT850F–N — 30° Stanchion



NT850H–N — 90° Stanchion



① *Any unused threaded entries must be sealed with an aluminum plug, Catalog Number NEBJS02NA.*

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Nutsteel® NT700 Series Industrial Light Fixture

Weatherproof. Water-Jet Proof

NBR IEC:
IP65

Applications

- Suitable for use in areas where there is no presence of flammable gases, fumes and moisture.
- For lighting machine rooms, washing bays, electroplating facilities, cold storage facilities, installations exposed to weather, etc.

Features

- Voltage: 127/220 V, 50/60 Hz.
- Supplied with guard.
- Lamp not supplied.
- NPT threads standard. BSP and metric threads available.

Standard Material

- Body and guard: copperfree cast aluminum alloy
- Globe: alkaline glass
- Socket: porcelain
- Gasket: silicone
- Screws and washers: external fixation of AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

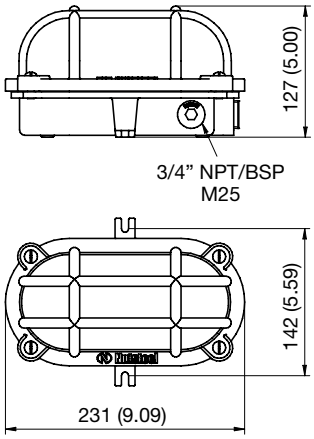
- E-27 Socket
- LED Board (Forty 0,5W LEDs)
- For BSP threads, replace the letter **N** with the letter **B** in the 7th position. Example: NT700J**B**I10
- For Metric threads, replace the letter **N** with the letter **M** in the 7th position. Example NT700J**M**E27

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP65
- Other Standards: ABNT NBR IEC 60529 (IP)



Illustrated Features



Lamp	Wattage	Socket	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
Compact Fluorescent	18 W	E27	2.50 (5.51)	7.40 (451.58)	**NT700JNE27**
LED Board	20 W	—	2.50 (5.51)	7.40 (451.58)	**NT700JNL20**

*① For BSP threads, replace the letter N with the letter B in the 7th position. Example: NT700J**B**E27.*
*② For Metric threads, replace the letter **N** with the letter **M** in the 7th position. Example NT700J**M**E27.*

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A.T.X.® ELS Series Self–Contained Emergency Lighting Unit

Incandescent

ATEX/IEC:
Zone 2 and 22
Ⓔx II 3 GD
IP66

NBR IEC:
Zone 2
Ex nA nR II Gb
IP66

Applications

- Enclosed and gasketed, non-metallic emergency lighting system suitable for use where flammable gases, vapors or dusts may become present due to abnormal conditions defined as Zone 2 and 22.
- Typical applications include manufacturing plants, refineries, petrochemical and chemical plants, waste and sewage treatment facilities, food processing facilities and other industrial manufacturing or process facilities subject to wet or corrosive conditions.



2 Lamp Version — ELS 2100712A

Features

- Provides 90 minutes of emergency lighting.
- The electronics consists of a solid state charger, transfer circuit and low voltage disconnect circuit.
- A LED pilot light indicates the presence of AC line voltage, and a test switch is provided for testing transfer operation.
- Upon restoration of normal power, the charger will begin a recharge cycle. It will bring the battery to full capacity.
- 6 A fuse provided as standard.
- 12 Vdc, 10 W or 21 W incandescent lamps.
- ATEX/IEC lamp base BA15D or NBR IEC lamp base E14.
- Battery capacity 7 A/h.
- Connections on 2.5 mm^2 (0.004 in^2) terminals.

Standard Materials

- Fiberglass reinforced polyester housing, carbon loaded for low resistivity
- Aluminium glass sealed spotlight

ATEX/IEC Certifications and Compliances

- Certification Type: ELS
  - Gas: Zone 2
    - Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 3 G
    - ATEX/IEC Protection: Ex nAR II
    - T Rating: T2
  - Dust: Zone 22
    - Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 3 D
    - ATEX/IEC Protection: Ex tD A22
    - Surface Temperature: +121 °C (+250 °F)
- Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- ATEX Certificate: LCIE 02 ATEX 6046
- Index of Protection (solid and liquid): IP66
- Impact Resistance (shock): IK10 (housing)
- Ex Standards: EN/IEC 60079-0, 60079-1, 60079-15

NBR IEC Brazilian Certifications and Compliances

- Certification Type: ELS
  - Gas: Zone 2
    - IEC Marking: Ex nA nR II Gb
- Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- Ingress Protection (solid and liquid): IP66
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0643-X
- Ex Standards: ABNT NBR IEC 60079-0, 60079-15, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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A.T.X.® ELS Series Self–Contained Emergency Lighting Unit

Incandescent

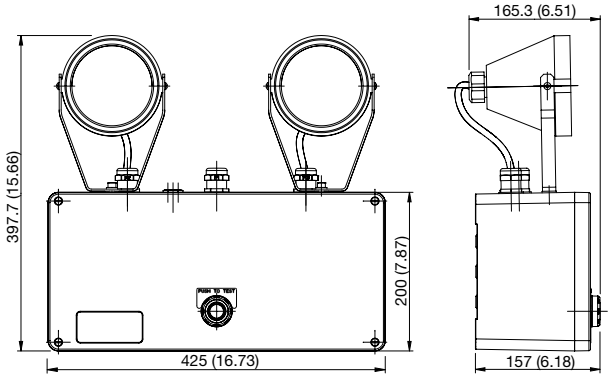
ATEX/IEC:
Zone 2 and 22
Ⓔx II 3 GD
IP66

NBR IEC:
Zone 2
Ex nA nR II Gb
IP66

2 x M20 entries at the top, supplied with one M20 polyamide cable gland [cable diameter 6.5 to 14.5 mm (0.26 x 0.57 in)] and one M20 blanking plug.

Number of Lamps	Wattage (W)	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number 205–254 Vac, 50/60 Hz IECEx	205–254 Vac, 50/60 Hz NBR IEC	110 – 120 Vac, 50/60 Hz IECEx	110 – 120 Vac, 50/60 Hz NBR IEC
1	10	8.50 (18.74)	4.55 (277.7)	**ELS1100712A**	**NELS1100712A**	**ELS1100712B**	**NELS1100712B**
2	10	7.70 (16.98)	4.80 (292.9)	**ELS2100712A**	**NELS2100712A**	**ELS2100712B**	**NELS2100712B**
1	21	8.50 (18.74)	4.55 (277.7)	**ELS1210712A**	**NELS1210712A**	**ELS1210712B**	**NELS1210712B**
2	21	7.70 (16.98)	4.80 (292.9)	**ELS2210712A**	**NELS2210712A**	**ELS2210712B**	**NELS2210712B**

Dimensions in Millimeters (Inches)



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A.T.X.® HBD Series Bulkhead Luminaires

Flameproof. Incandescent, Compact Fluorescent, Mixed

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ex II 2 GD
IP66 - IK08

NBR IEC — HBDO:
Zone 1 and 2 – 21 and 22
Ex d IIB Gb
Ex tb IIIC Db
IP66

Applications

- Suitable for use in:
  - — Stairways
  - — Small areas
  - — Emergency exit

Features

- HBDR
  - — Lamps (not supplied)
  - — Incandescent 200 W maximum
  - — Compact Fluorescent 23 W maximum
  - — Mixed 160 W maximum
  - — Threaded flameproof joint.
  - — Operates on ceiling and wall.
- HBRO
  - — Incandescent 60 W to 100 W maximum
  - — Compact fluorescent 15 W maximum
  - — Operates in any position.
  - — For incandescent 60 W and 100 W a high temperature cable 106 °C (223 °F) is required.
- Lamps are not supplied.
- E27 lampholder.
- Fixing by two integrated brackets.
- Connection to lampholder via two terminals 2.5 mm^2 (0.004 in^2).
- Internal earth two terminals 2.5 mm^2 (0.004 in^2).
- External earth one 4 mm^2 (0.006 in^2).
- 3 x M20 threaded entries in “T” formation.
- Supplied with two blanking plugs M20.



HBDR
Round Bulkhead ①



HBDO
Oval Bulkhead

Standard Materials

- Body and bezel: gray painted aluminum
- Glass: sealed toughened lamp glass
- Protective guard: zinc plated steel

ATEX/IEC Certifications and Compliances

- HBRD
  - — Certification Type: HBRd
    - – Gas: Zones 1 and 2
      - » Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 G
      - » ATEX/IEC Protection: Ex d IIC
      - » T Rating: See *T Rating for Gas* Table
    - – Dust: Zones 21 and 22
      - » Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 D
      - » ATEX/IEC Protection: Ex tD A21
    - – Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
    - – CE Declaration of Conformity: 50242
    - – ATEX Certificate: LCIE 02 ATEX 6163
    - – IEC Certificate: LCIE Ex 02.014
- HBRO
  - — Certification Type: HBOd
    - – Gas: Zones 1 and 2
      - » Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 G
      - » ATEX/IEC Protection: Ex d IIB
      - » T Rating: See *T Rating for Gas* Table
    - – Dust: Zones 21 and 22
      - » Conforming to ATEX 94/9/CE: CE 0081 Ex II 2 D
      - » ATEX/IEC Protection: Ex tD A21
    - – Ambient Temperature: -20 °C to + 40 °C (-4 °F to +104 °F)
    - – CE Declaration of Conformity: 50234
    - – ATEX Certificate: LCIE 02 ATEX 6162
    - – IEC Certificate: LCIE Ex 02.013
- Other Certifications: GOST
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm^3 (122 in^3) -2 liters
- Ex Standards: EN/IEC 60079-0, 60079-1, 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: HBOd
  - — Gas: Zone 1 and 2
    - – IEC Marking: Ex d IIB Gb
    - – T Rating: T3
  - — Dust: Zones 21 and 22
    - – IEC Marking: Ex tb IIIC Db
- Ambient Temperature: -20 °C to + 40 °C (-4 °F to +104 °F)
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0597
- Ingress Protection (solid and liquid): IP66
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

① HBDR Series Luminaires do NOT have NBR IEC Brazilian Certification.

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A.T.X.® HBDR Series Bulkhead Luminaires

Flameproof. Incandescent, Compact Fluorescent, Mixed

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 - IK08

	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
	7.5 (16.53)	23.4 (51.59)	**HBDR** ①

Accessories

	Catalog Number
Protective Guard	**HBDRPGZ**

T Rating for Gas ②

Lamp Type and Wattage			Operating Positions					
			Ceiling			Wall		
Wattage	Type	Ambient Temperature	+40° C (+104° F)	+50° C (122° F)	+55 °C (+131 °F)	+40° C (+104° F)	+50° C (122° F)	+55 °C (+131 °F)
8	Compact Fluorescent	T Rating	T6	T6	T6	T6	T6	T6
15	Compact Fluorescent	T Rating	T6	T6	T6	T6	T6	T6
23	Compact Fluorescent	T Rating	T6	T6	T6	T5	T5	T4
100	Incandescent	T Rating	T5	T4	T4	T5	T4	T4
200	Incandescent	T Rating	T4	T4	T4	T4	T4	T4
		T° at cable entry	—	+84° C (+183° F)	+89° C (+192° F)	—	+84° C (+183° F)	+89° C (+192° F)
100	Mixed	T Rating	T4	T4	T4	T4	T4	T4
180	Mixed	T Rating	T3	T3	T3	T3	T3	T3
		T° at cable entry	—	+87 C (+188° F)	+92° C(+198° F)	—	+87 C (+188° F)	+92° C(+198° F)

Surface Temperature for Dust ②

Lamp Type and Wattage		Operating Positions			
		Ceiling		Wall	
Wattage	Type	Surface T° for Ta = +55 °C (+131 °F)	T° at Cable Entry Ta= +55 °C (+131 °F)	Surface T° for Ta= +55 °C (+131 °F)	T° at Cable Entry Ta= +55 °C (+131 °F)
8	Compact Fluorescent	+60 °C (+140 °F)	–	+70 °C (+158 °F)	–
15	Compact Fluorescent	+64 °C (+147 °F)	–	+76 °C (+169 °F)	–
23	Compact Fluorescent	+69 °C (+156 °F)	–	+96 °C (+205 °F)	–
100	Incandescent	+105 °C (+221 °F)	–	+105 °C (+221 °F)	–
200	Incandescent	+130 °C (+266 °F)	+89 °C (+192 °F)	+130 °C (+266 °F)	+89 °C (+192 °F)
100	Mixed	+130 °C (+266 °F)	–	+130 °C (+266 °F)	–
160	Mixed	+149 °C (+300 °F)	+92 °C (+198 °F)	+149 °C (+300 °F)	+92 °C (+198 °F)

① HBDR Series Luminaires do NOT have NBR IEC Brazilian Certification.
② No need for high temperature cable for cable entry temperature less than +80 °C (+176 °F).

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A.T.X.® HBDO Series Bulkhead Luminaires

Flameproof. Incandescent, Compact Fluorescent

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66 - IK08

NBR IEC — HBDO:
Zone 1 and 2 – 21 and 22
Ex d IIB Gb
Ex tb IIIC Db
IP66

	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
	3 (6.61)	9 (19.84)	**HBDO**	**NHBDO**

Accessories

	Catalog Number IECEx	Catalog Number NBR IEC
Protective Guard	**HBDOPGZ**	**NHBDOPGZ**
Terminal block For through wiring 2 x 2.5 mm^2 (0.003 x 0.004 in^2) with high temperature sleeve	**094784**	**N94784**

T Rating for Gas ①

Lamp Type and Wattage			
Wattage	**Type**	**Temperature Class for Ta = +40 °C (+104 °F)**	**T° at Cable Input for Ta = +40 °C (+104 °F)**
7	Compact Fluorescent	T6	—
11	Compact Fluorescent	T6	—
15	Compact Fluorescent	T6	—
60	Incandescent	T4	+106 °C (+223 °F)
100	Incandescent	T4	+106 °C (+223 °F)

T Rating for Dust ①

Lamp Type and Wattage		
Wattage	**Type**	**Temperature Class for Ta = +40 °C (+104 °F)**
7	Compact Fluorescent	+76 °C (+169 °F)
11	Compact Fluorescent	+76 °C (+169 °F)
15	Compact Fluorescent	+76 °C (+169 °F)
60	Incandescent	+119 °C (+246 °F)
100	Incandescent	+119 °C (+246 °F)

① *No need for high temperature cable for cable entry temperature less than +80 °C (+176 °F).*

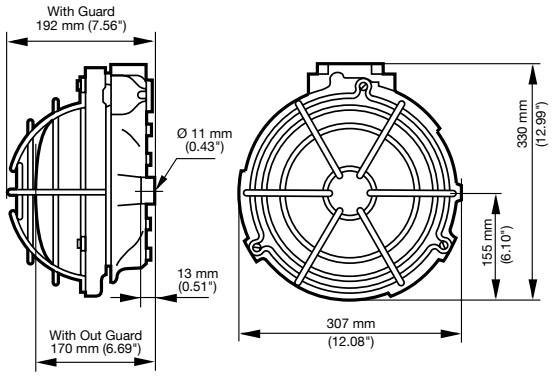
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A.T.X.® HBD Series Bulkhead Luminaires

Flameproof. Incandescent, Compact Fluorescent, Mixed

HBDR Series Bulkhead Luminaires — Incandescent, Compact Fluorescent, Mixed

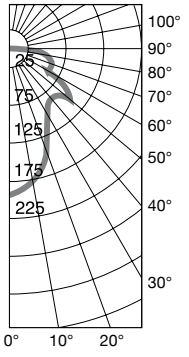
Dimensions in Millimeters (Inches)



Photometric Data ①

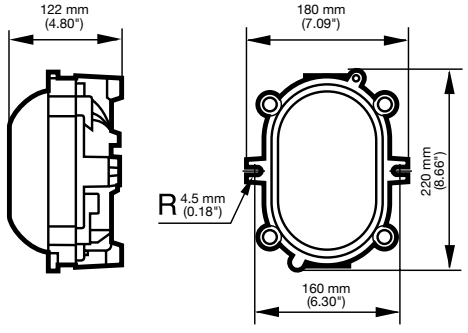
Incandescent
NF C 71–120: .068 G + 0.01 T

CANDELA DISTRIBUTION	
0	185
5	178
10	171
15	156
20	132
25	110
30	97
35	87
40	90
45	100
50	96
60	58
70	58



HBDO Series Bulkhead Luminaires — Incandescent, Compact Fluorescent

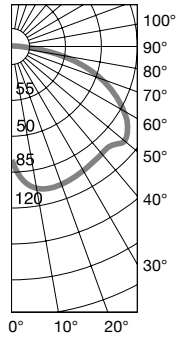
Dimensions in Millimeters (Inches)



Photometric Data ①

Incandescent
NF C 71–120: .068 H

CANDELA DISTRIBUTION	
0	67
5	94
10	96
15	99
20	99
25	97
30	95
35	96
40	91
45	91
50	98
60	87
70	69



① *Polar curves for a 1000 lm output according to NF C 71-120. Luminaire symbol according to NF C 71-121.*

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A.T.X.® HBN Series Round Bulkhead Luminaires

Flameproof. Incandescent

ATEX/IEC:
Zone 2 and 22
Ⓔx II 3 GD
IP65

NBR IEC:
Zone 2 and 22
Ex nR II Gc
Ex tc IIIC Dc
IP65

Applications

- Suitable for use in:
  — Stairways
  — Small areas
  — Emergency exit

Features

- For incandescent lamps 60 W to 150 W maximum, mixed lamp 100 W maximum, mercury 80 W maximum (remote mercury ballast not supplied). Lamps not supplied.
- E27 lampholder.
- Screw locking mechanism.
- Operates in all positions.
- Connection to lampholder via two 2 x 2.5 mm^2 (0.003 x 0.004 in^2) terminals.
- Internal earth two terminals 2 x 2.5 mm^2 (0.003 x 0.004 in^2). External earth 1 x 4 mm^2 (0.002 x 0.006 in^2).
- Three M20 entries in “T” formation. Supplied with one M20 cable gland [6.5 to 14.5 mm (0.26 to 0.57 in) diameter] and two M20 blanking plugs.



HBNRI15 and HBEPGZ

Standard Materials

- Body: gray painted aluminum alloy
- Diffuser: glass
- Sealing gasket: silicone
- Guard: zinc plated steel
- Cable gland and blanking plug: polyamide

ATEX/IEC Certifications and Compliances

- Certification Type: HBn150
  — Gas: Zone 2
    – Conforming to ATEX 94/9/CE: CE Ⓔx II 3 G
    – ATEX/IEC Protection: Ex nR II
    – T Rating: See *T Rating (Gas) and Surface Temperature (Dust) Table*
  — Dust: Zone 22
    – Conforming to ATEX 94/9/CE: CE Ⓔx II 3 D
    – ATEX/IEC Protection: Ex tD A22
    – Surface Temperature: See *T Rating (Gas) and Surface Temperature (Dust) Table*
- Ambient Temperature: -20 °C ≤ Ta ≤ +50 °C (-4 °F ≤ Ta ≤ +122°F); 80 W Mercury: -20 °C ≤ Ta ≤ +40 °C (-4 °F ≤ Ta ≤ 104 °F)
- CE Declaration of Conformity: 50220
- ATEX Certificate: LCIE 03 ATEX 6167X
- IEC Certificate: LCIE Ex 03.026X
- Index of Protection (solid and liquid): IP65
- Ex Standards: EN/IEC 60079-0; 60079-15; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1
- EMC Standards: EN/IEC 55015; 61547
- Other Standards: EN/IEC 60529 (IP)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: HBn150
  — Gas: Zone 2
    – IEC Marking: Ex nR II Gc
    – T Rating: See *T Rating (Gas) and Surface Temperature (Dust) Table*
  — Dust: Zone 22
    – IEC Marking: Ex tc IIIC Dc
    – T Rating: See *T Rating (Gas) and Surface Temperature (Dust) Table*
- Ambient temperature: -20 °C to +40 °C (-4 °F to +104 °F)
- INMETRO Ordinance 179
- INMETRO Certificate: BVC11.0642-X
- Ingress Protection (solid and liquid): IP65
- Ex Standards: ABNT NBR IEC 60079-0, 60079-15, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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A.T.X.® HBN Series Round Bulkhead Luminaires

Flameproof. Incandescent

ATEX/IEC:
Zone 2 and 22
Ⓔx II 3 GD
IP65

NBR IEC:
Zone 2 and 22
Ex nR II Gc
Ex tc IIIC Dc
IP65

	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
	3 (6,61)	15 (33,07)	**HBNRI15**	**NHBNRI15**

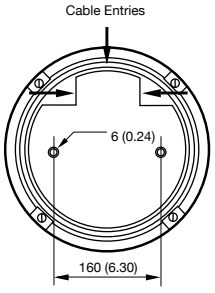
Accessories

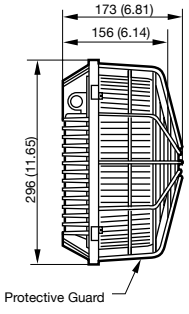
	Catalog Number IECEx	Catalog Number NBR IEC
Protective Guard	**HBEPGZ**	**NHBEPGZ**
Spare Lampglass	**HBEGD**	**NHBEGD**

T Rating (Gas) and Surface Temperature (Dust) Table

Lamp Type and Wattage		Gas			Dust
Wattage	Type	T Rating for Ta = +40 °C (+104 °F)	T Rating for Ta = +50 °C (+122 °F)	T° at Cable Input	Surface T° for Ta = +50 °C (+122 °F)
60	Incandescente	T5	T4	—	+101 °C (+214 °F)
75	Incandescente	T5	T4	—	+104 °C (+219 °F)
80	Mercúrio	T3	—	—	+131 °C (+268 °F) Ta = +40 °C (+104 °F)
100	Incandescente	T4	T4	+83 °C (+181 °F)	+114 °C (+237 °F)
100	Mista	T4	T4	+100 °C (+212 °F)	+125 °C (+257 °F)
150	Incandescente	T4	T4	+92 °C (+198 °F)	+120 °C (+248 °F)

Dimensions in Millimeters (Inches)

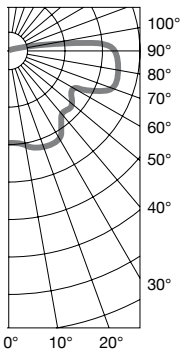




Photometric Data ①

Incandescent
NF C 71–120: .062 J + 0.10 T

CANDELA DISTRIBUTION	
0	185
5	178
10	171
15	156
20	132
30	110
40	97
50	87
60	90
70	100
80	96
90	58
100	58



① *Polar curves for a 1000 lm output according to NF C 71-120. Luminaire symbol according to NF C 71-121.*

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A.T.X.® HBDC Series Cylindrical Bulkhead Luminaires

Flameproof. Incandescent, Fluorescent, High Pressure Sodium

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66/68 (10M) - IK08

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIB+H_2/Ex d IIC Gb
Ex tb IIIC Db
IP66/68

Applications

- For illumination of:
  - — Stairways
  - — Small areas
  - — Emergency exit

Features

- For lamps:
  - — 70 W high pressure sodium (ovoid type E27 lampholder)
  - — 18/20 W compact fluorescent lamp (E27 lampholder)
  - — 2 x 40 W incandescent lamp (E27 lampholder)
  - — 8 W fluorescent bulb (G5 lampholder) (lamp supplied)
- HPS version: compensated power supply (+/-10%) with power factor 0.9:
  - — ATEX/IEC: 230/240 V, 50 Hz
  - — NBR IEC: 220 V, 60 Hz
- Connection to plug-in terminal block via 2 x 3 terminals 2.5 mm² (0.004 in²).
- Operates in any position.
- Threaded access cover with O-ring seal.
- Two integrated mounting lugs.
- 1 external earth via 4 mm² (0.006 in²) bracket.
- 2 threaded cable entries.
- Supplied with 1 plug M20 (cable gland not supplied).

Standard Materials

- End cap and cover: Zamak, anticorrosion treated and painted gray
- Sealed tube: toughened glass
- External reflector: galvanized steel painted white
- Protective guard: zinc plated steel
- Lamps are not supplied except for 8 W fluorescent bulb

Options

- Fixing accessories available in 316 stainless steel or zinc plated steel.
- Fall prevention fixing kit in stainless steel.

ATEX/IEC Certifications and Compliances

- Certification Type: FLd
  - — Gas: Zone 1 - 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex d IIC
    - – T Rating: See *T Rating (Gas) and Surface Temperature (Dust) Table*
  - — Dust: Zone 21 - 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: See *T Rating (Gas) and Surface Temperature (Dust) Table*
- Ambient Temperature: -20 °C ≤ Ta ≤ +50 °C (-4 °F ≤ Ta ≤ +122 °F); for 70 W HPS: -20 °C ≤ Ta ≤ +50 °C (-4 °F ≤ Ta ≤ +122 °F)
- CE Declaration of Conformity: 50203
- ATEX Certificate: LCIE 97/ ATEX 6012
- IECEx Certificate: IECEx LCI 04.0018
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66/68 (10 m)
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm³ (122 in³)- 2 liters
- Ex Standards EN/IEC 60079-0; 60079-1; 61241-0; 61241-1



70 W High Pressure Sodium Version



Compact Fluorescent Version

- Product Standards: EN/IEC 60598-1
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: FLd
  - — Gas: Zone 1 - 2
    - – IEC Marking: Ex d IIB+H_2/Ex d IIC Gb
  - — Dust: Zone 21 - 22
    - – IEC Marking: Ex tb IIIC Db
- Ambient temperature: -20 °C to +50 °C (-4 °F to +122 °F)
- Ingress Protection: IP66/68 (10 meters)
- INMETRO Ordinance 179
- INMETRO Certifi cate: BVC 11.0492
- Impact Resistance (shock): IK08
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- For labels see *Labels for Emergency Lighting Units, ATX Self-Adhesive Signaling Labels for Emergency Lighting Units*.

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A.T.X.® HBDC Series Cylindrical Bulkhead Luminaires

Flameproof. Incandescent, Fluorescent, High Pressure Sodium

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66/68 (10M) - IK08

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIB+H_2/Ex d IIC Gb
Ex tb IIIC Db
IP66/68

Order using catalog numbering guide below to decifer the catalog number logic on the following page.

Catalog Numbering Guide — HBDC Series Cylindrical Bulkhead Luminaires

HBDC

Series:
HBDC - HBDC Series
Zone 1 and 2 – 21 and 22
ATEX/IEC Certified

N HBDC - HBDC Series
Zone 1 and 2 – 21 and 22
NBR IEC Certified

F

Lamp Type:
I - Incandescent
F - Fluorescent
L - High Pressure Sodium

1

Quantity of Lamps:
1 - One Lamp
2 - Two Lamp

40

Lamp Wattage (for lamp type):
40 - 40 W (Incandescent)
18 - 18/20 W (Compact Fluorescent)
70 - 70 W (High Pressure Sodium)
08 - 8 W (Fluorescent)

02A

Voltage:
02A - 24 Vac, 50/60 Hz
02D - 24 Vdc
04A - 48 Vac, 50/60 Hz
04D - 48 Vdc
11A - 110 Vac, 50/60 Hz
11D - 110 Vdc
24A - 230/240 Vac, 50/60 Hz ①
24B - 230/240 Vac/Vdc, 50/60 Hz
XN - 220 V, 60 Hz ②

T Rating (Gas) and Surface Temperature (Dust) Table

Versions	Gas T Rating				Dust Surface Temperature	
	Without External Reflector		With External Reflector			
	Ta = +40 °C (+104 °F)	Ta = +55 °C (+131 °F)	Ta = +40 °C (+104 °F)	Ta = +55 °C (+131 °F)	Without External Reflector °C (°F)	With External Reflector °C (°F)
Incandescent lamp (2 x 40 W) ③	T5	T5	T5	T5	+95 (+203)	+95 (+203)
Compact Fluorescent lamp (20 W max)	T6	T5	T5	T4	+95 (+203)	+130 (+266)
Fluorescent (8 W - G5 lampholder)	T6	T5	T5	T4	+95 (+203)	+130 (+266)
High Pressure Sodium Lamp (70 W ovoid) ③	T4 for Ta = +50 °C (+122 °F)		–	–	+122 (+252)	–

① 50 Hz only for the 70 W HPS Version.
② 220 V, 60 Hz voltages luminaires are certified for use in NBR IEC governed locations only.
③ Lamp not supplied.

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A.T.X.® HBDC Series Cylindrical Bulkhead Luminaires

Flameproof. Incandescent, Fluorescent, High Pressure Sodium

ATEX/IEC:
Zone 1 and 2 – 21 and 22
Ⓔx II 2 GD
IP66/68 (10M) - IK08

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIB+H_2/Ex d IIC Gb
Ex tb IIIC Db
IP66/68

Lamp	Lampholder	Voltage	Weight kgs (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
2x40 W Incandescent ①	E27	—	7.1 (16)	31 (1892)	**HBDCI240**	**NHBDCI240**
70 W High Pressure Sodium ①	E27	230/240 Vac, 50 Hz	7.1 (16)	33 (2014)	**HBDCL17024A**	—
		220 V, 60 Hz			—	**NHBDCL170XN**
1 x 8 W Fluorescent	G5	24 Vdc	8.3 (18)	31 (1892)	**HBDCF10802D**	**NHBDCF10802D**
1 x 8 W Fluorescent	G5	48 Vdc	8.3 (18)	31 (1892)	**HBDCF10804D**	**NHBDCF10804D**
1 x 8 W Fluorescent	G5	110 Vdc	8.3 (18)	31 (1892)	**HBDCF10811D**	**NHBDCF10811D**
1 x 8 W Fluorescent	G5	230/240 Vac, 50/60 Hz 198/254 Vdc	8.3 (18)	31 (1892)	**HBDCF10824B**	**NHBDCF10824B**
2 x 8 W Fluorescent	G5	230/240 Vac, 50/60 Hz 198/254 Vdc	8.3 (18)	31 (1892)	**HBDCF20824B**	**NHBDCF20824B**
1 x 18/20 W Compact Fluorescent ①	E27	—	7.1 (16)	33 (2014)	**HBDCF118**	**NHBDCF118**

	Description	Catalog Number IECEx	Catalog Number NBR IEC
	External reflector in galvanized steel (painted white) (not compatible with 70 W HPS version)	**FDER1G**	**NFDER1G**
	Protective guard in zinc plated steel	**FDPG1Z**	**NFDPG1Z**
	Protective guard in zinc plated steel for 70 W HPS version	**FDPG5Z**	**NFDPG5Z**
	Quick one-hand fixing (Set of 2 brackets) in zinc plated steel	**FDFBZ**	**NFDFBZ**
	Quick one-hand fixing (Set of 2 brackets) in 316 stainless steel	**FDFBS**	**NFDFBS**
	Fixing unit on flat surface (Set of 2 brackets) in zinc plated steel	**FDSBZ**	**NFDSBZ**
	Fixing unit on flat surface (Set of 2 brackets) in 316 stainless steel	**FDSBS**	**NFDSBS**
	Fixing unit in zinc plated steel for 1-1/2" tube [49 mm (1.93 in) diameter] or for 1-1/4" tube tube [42 mm (1.65 in) diameter]	**FDHC49Z**	**NFDHC49Z**
	Fixing unit in 316 stainless steel for 1-1/2" tube [49 mm (1.93 in) diameter] or for 1-1/4" tube tube [42 mm (1.65 in) diameter]	**FDHC49S**	**NFDHC49S**
	Fixing unit in zinc plated steel for 2" tube [60 mm (2.36 in) diameter]	**FDHC60Z**	**NFDHC60Z**
	Fixing unit in stainless steel for 2" tube [60 mm (2.36 in) diameter]	**FDHC60S**	**NFDHC60S**
	Fall prevention fixing kit in stainless steel [1.2 m (0.05 in) chain]	**FDSCS**	**NFDSCS**

① Lamp not supplied.
② 220 V, 60 Hz voltages luminaires are certified for use in NBR IEC governed locations only.

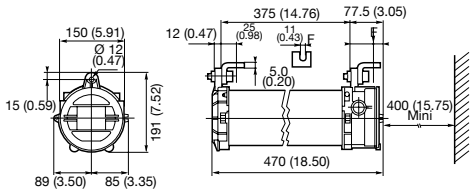
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A.T.X.® HBDC Series Cylindrical Bulkhead Luminaires

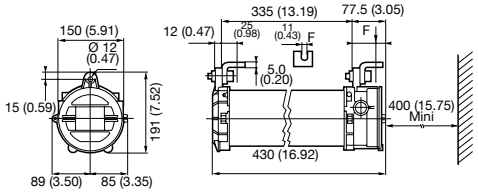
Flameproof. Incandescent, Fluorescent, High Pressure Sodium

Dimensions in Millimeters (Inches)

HBDCL17024A (70 W HP High Pressure Sodium)



HBDC and HBDCF



Photometric Data

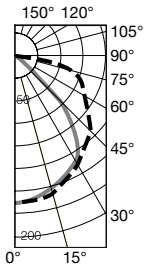
Polar curves for a 1000 lm flux, according to NF C 71-120.
Luminaire symbol according to NF C 71-121.

Longitudinal
Transverse

70 W HP High Pressure Sodium
Efficiency 59.4%
NF C 71–121: 0.56G + 0.04T

CANDELA DISTRIBUTION

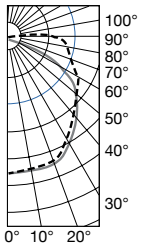
	0–180	90–270
0	166	166
5	167	165
10	164	162
15	162	156
20	158	151
25	155	143
30	151	133
35	146	122
40	141	110
45	135	95
50	128	81
55	120	66
60	111	52
65	101	39
70	90	27



2x40 W Incandescent
Efficiency: 75.6%
NFC 71–121: 0.74G + 0.02T

CANDELA DISTRIBUTION

	0–180	90–270
0	196	196
5	197	198
10	196	196
15	193	194
20	189	190
25	181	185
30	176	179
35	170	172
40	163	164
45	155	153
50	145	128
60	123	91
70	99	43



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A.T.X.® TCH Series Safety Flashlights

Increased Safety. Halogen, Incandescent

ATEX/IEC:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 (TCH1)
IP66/68 (TCH2)

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex eib IIC Gb
Ex tb IIIC Db
IP66 (TCH1)
IP66/68 (TCH2)

Applications

- To provide maintenance staff with task specific portable lighting in Zone 1 hazardous areas.
- Ideal for persons requiring task specific portable lighting in refineries, oil and gas process and chemical plants.

Features

- Type TCH1:
  — Luminescent switch facilitates locating flashlight in dark.
  — Can be used to transmit a Morse code.
  — Halogen version provides twice the lumen output of incandescent lamps.
  — Hook for hands free operation.
  — Uses R20 or LR20 batteries (not included).
  — Supplied with 1 lamp.
- Type TCH2:
  — Dual optics (one at the end and one on the side) permitting:
  - Focused beam for safe movement.
  - Wide angle side beam for task specific focused lighting.
  — Ergonomic design permits easy manipulation:
  User can select one of the two beams with one hand.
  — Two beams can be switched on separately and not simultaneously.
  — Should one lamp fail, the second lamp will still provide illumination.
  — Flashlight is stable when placed upright on a horizontal surface.
  — Pocket clip allows for hands free work.
  — Luminescent ring allows easy locating of flashlight in dark.
  — Suspension hook for hands free use.
  — Uses 2 R20 or LR20 batteries (not included).
  — Supplied with one halogen lamp for main beam and one incandescent lamp for side beam.
  — Supplied with one special opening tool.

Standard Materials

- Type TCH1:
  — Housing: shockproof and antistatic polyamide
  — Internal reflector: polished
  — Lens: polycarbonate
  — Hardware: stainless steel
  — Switch: luminescent
- Type TCH2:
  — Housing: black polycarbonate
  — Internal reflector: polished
  — Lens: polycarbonate
  — Hardware: stainless steel
  — Ring: luminescent

ATEX/IEC Certifications and Compliances

- Certification Type: TCH1
  — Gas: Zones 1–2
  - Conforming to ATEX 94/9/CE: CE 0081 II 2 G
  - ATEX/IEC Protection: Ex eib IIC
  - T Rating: T4
  - Ambient Temperature: -20 °C ≤ To ≤ +40 °C (-4 °C ≤ To ≤ +104 °F)
  - CE Declaration of Conformity: 50259
  - ATEX Certificate: LCIE 03 ATEX 6064
  - IEC Certificate: LCIE Ex 03.010
  - Ingress Protection (solid and liquid): IP66
  — Dust: Zone 21-22
  - Conforming to ATEX 94/9/CE: CE 0081 II2 D
  - ATEX/IEC Protection: Ex tD A21
  - Surface Temperature: +95 °C (+203 °F)
  - Ambient Temperature: -20 °C ≤ To ≤ +40 °C (-4 °F ≤ To ≤ +104 °F)
  - CE Declaration of Conformity: 50259
  - ATEX Certificate: LCIE 03 ATEX 6064
  - IEC Certificate: LCIE Ex 03.010
  - Ingress Protection (solid and liquid): IP66
- Certification Type: TCH2
  — Gas: Zones 1–2
  - Conforming to ATEX 94/9/CE: CE 0081 II 2 G
  - ATEX/IEC Protection: Ex eib IIC
  - T Rating: -20 °C ≤ To ≤ +40 °C (-4 °F ≤ To ≤ +104 °F):
  – Incandescent PR6, Krypton PR102, Halogen HPR52, Halogen HPR01 = T4 +40 °C ≤ To ≤ +55 °C (+104 °F ≤ To ≤ +131 °F)
  - Ambient Temperature: -20 °C ≤ To ≤ +55 °C (-4 °F ≤ To ≤ +131 °F)
  - CE Declaration of Conformity: 50238
  - ATEX Certificate: LCIE 02 ATEX 6229
  - IEC Certificate: LCIE Ex 02.024
  - Ingress Protection (solid and liquid): IP66/68 (25m)
  — Dust: Zone 21-22
  - Conforming to ATEX 94/9/CE: CE 0081 II2 D
  - ATEX/IEC Protection: Ex tD A21
  - Surface Temperature: +130 °C (+266 °F)
  - Ambient Temperature: -20 °C ≤ To ≤ +55 °C (-4 °F ≤ To ≤ +131 °F)
  - CE Declaration of Conformity: 50238
  - ATEX Certificate: LCIE 02 ATEX 6229
  - IEC Certificate: LCIE Ex 02.024
  - Ingress Protection (solid and liquid): IP66/68 (25m)
- Ex Standards: EN/IEC 60079-0; 60079-7; 60079-11; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1
- Other Standards: EN/IEC 60529 (IP)



TCH1



TCH2

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A.T.X.® TCH Series Safety Flashlights

Increased Safety. Halogen, Incandescent

ATEX/IEC:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66 (TCH1)
IP66/68 (TCH2)

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex eib IIC Gb
Ex tb IIIC Db
IP66 (TCH1)
IP66/68 (TCH2)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: TCH1
  - — Gas: Zone 1 and 2
    - IEC Marking: Ex eib IIC Gb
    - T Rating: T4
  - — Dust: Zone 21 and 22
    - IEC Marking: Ex tb IIIC Db
  - — INMETRO Certificate: BVC 11.0419
  - — Ingress Protection: IP66
- Certification Type: TCH2
  - — Gas: Zone 1 and 2
    - IEC Marking: Ex eib IIC Gb
  - — T Rating:
    - – -20 °C ≤ To ≤ +40 °C (-4 °F to +104 °F): Incandescent PR6, Krypton PR102, Halogen HPR52, Halogen HPR01 = T4
    - – -20 °C ≤ To ≤ +55 °C (-4 °F to +131 °F): Incandescent PR7, Krypton PR102, Halogen HPR01 = T4
    - – -20 °C ≤ To ≤ +55 °C (-4 °F to +131 °F): Halogen HPR52 = T3
  - — Dust: Zone 21 and 22
    - IEC Marking: Ex tb IIIC Db
  - — INMETRO Certificate: BVC 11.0419
  - — Ingress Protection: IP66/68 (25m)
- Ambient temperature: -20 °C to +55 °C (-4 °F to +131°F)
- INMETRO Ordinance 179
- Impact Resistance (shock): IK08
- Ex Standards: ABNT NBR IEC 60079-0, 60079-7, 60079-11, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Ordering Information:

Number of lamps (included)	Type of Lamps (not included)	Number of Battery Cells	Weight kgs (lb)	Volume dm^3 (in^3)	Catalog Number IEC	Catalog Number NBR IEC
1	Incandescent — 2.5 V – 0.3 A	2	0.4 (0.88)	3.4 (207.6)	**TCH12C**	**NTCH12C**
1	Incandescent — 3.7 V – 0.3 A	3	0.4 (0.88)	3.4 (207.6)	**TCH13C**	**NTCH13C**
1	Halogen — 2.8 V – 0.5 A	2	0.4 (0.88)	3.4 (207.6)	**TCH12H**	**NTCH12H**
2	Incandescent — 2.5 V – 0.3 A Halogen — 2.8 V – 0.5 A	2	0.4 (0.88)	1.9 (116.0)	**TCH22M**	**NTCH22M**

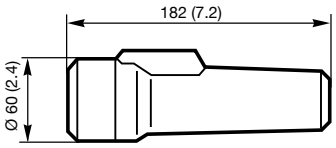
Spare Lamps for Replacement (Lamp Holder P13, 5S)

Lamp Type	Rating	Catalog Number IEC	Catalog Number NBR IEC
Incandescent (PR6)	2.5 V – 0.3 A	**TCHL25C**	**NTCHL25C**
Incandescent (PR7)	3.7 V – 0.3 A	**TCHL37C**	**NTCHL37C**
Halogen (HPR01)	2.8 V – 0.5 A	**TCHL28H**	**NTCHL28H**

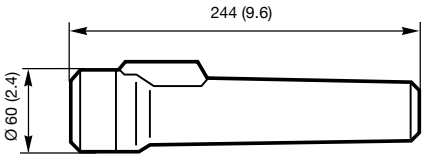
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Dimensions in Millimeters (Inches)

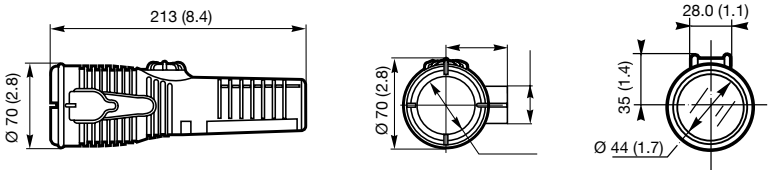
TCH12C/H



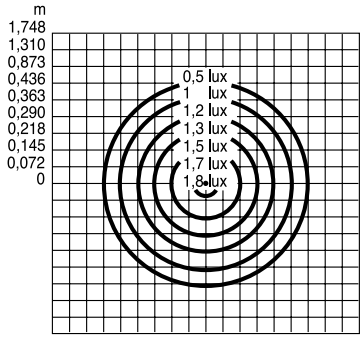
TCH13C



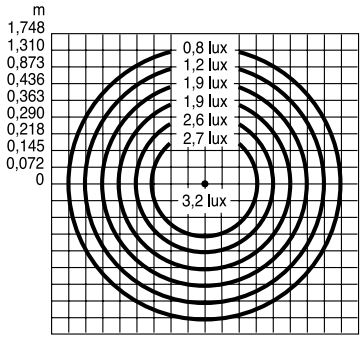
TCH22M



Photometric Data



Catalog Number TCH12C (at 25 meters) Incandescent



Catalog Number TCH13C (at 25 meters) Incandescent

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Nutsteel® NE800 Series Luminaires

Explosionproof. Compact Fluorescent, Incandescent, Mixed

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

Applications

- Ideal for use in chemical and petrochemical plants, and in other heavy process areas where ignitable vapors, dust, moisture and corrosive atmospheres may be present.
- Typical applications include:
  - — Chemical plants
  - — Petrochemical plants
  - — Paint and varnish manufacturing facilities
  - — Pharmaceutical manufacturing facilities
  - — Food processing facilities
  - — Paint booths
  - — Flammable material storage facilities

Features

- Manufactured in seven models:
  - — Ceiling, 30° wall, 45° wall and 90° wall mounts have four threaded entries.
  - — Pendant, 30° stanchion, and 90° stanchion mounts have one threaded entry.
- Supplied with guard.
- Lamp not supplied.
- Operating temperature: -20 ºC to +55 ºC (-4 ºF to +131 ºF)
- Optional NEREA or NTREA reflector is lightweight, durable and corrosion-resistant.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- tD: Protection by enclosures suitable for Zone 21 and 22.
- NPT threads standard.

Standard Materials

- Mounting hood, body and guard: copperfree aluminum alloy
- Globe: thermal shock and impact resistant borosilicate glass
- Socket: anti-vibration reinforced porcelain
- Screws and washers: AISI 304 stainless steel
- Optional NEREA or NTREA reflector: anodized aluminum

Standard Finish

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

Options

- For BSP threads, replace with the letter **N** with the letter **B** in the 7th position, Example: NE800A**B**1I06.
- For Metric threads, replace with the letter **N** with the letter **M** in the 7th position, Example: NE800A**M**1I06.
- For optional reflector for size 3, add the letter **A** to the end of the catalog number; for size 1, add the letter **B** to the end of the catalog number; example: NE800AN1I06**A**.
- For optional reflector's material, add the letter **A** for aluminum or **F** for porcelain steel to the end of the catalog number; example: NE800AN1I06A**A**.
- For optional reflector's size, add the letter **1** for shallow, **2** for standard, **3** for deep or **4** for angle to the end of the catalog number; example: NE800AN1I06AA**1**.

NBR IEC Brazilian Certifications and Compliances

- Ingress Protection (solid and liquid): IP66
- INMETRO Certificate: TÜV 11.0022-X
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

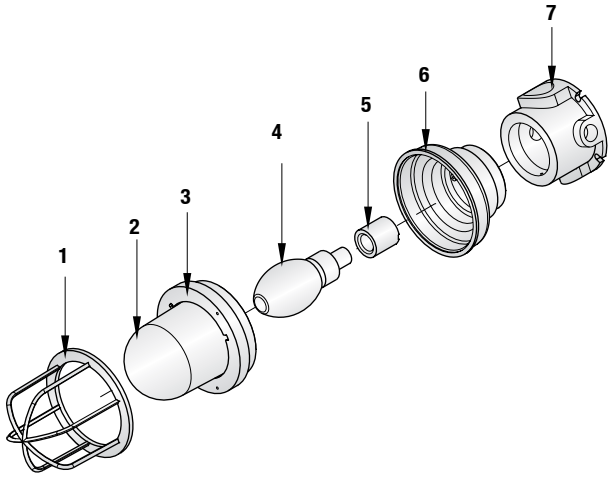


Ceiling Mount



Optional NEREA or NTREA Reflector

Technical Features



1 – Protective guard
2 – Borosilicate glass globe
3 – Fixing ring
4 – Lamp
5 – Anti–vibration socket
6 – Globe base
7 – Mounting hood

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NE800 Series Luminaires

Explosionproof. Compact Fluorescent, Incandescent, Mixed

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

Order using catalog numbering guide below or select catalog number from tables below and on following pages.

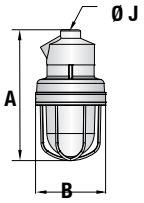
Catalog Numbering Guide

NE800 **A** **N** **3** **T** **25** **A** **A** **1**

- **NE800** — Series: NE800 - NE800 Series, Zone 1, 2, 21, 22, NBR IEC Certified
- **A** — Mounting: A - Pendant; B - Ceiling; C - 30° Wall; D - 45° Wall; E - 90° Wall; F - 30° Stanchion; H - 90° Stanchion
- **N** — Thread: N - NPT; B - BSP; M - Metric
- **3** — Luminaire Size: *(Refer to table below)* 1 - Size 1; 3 - Size 3
- **T** — Lamp Type: I - Incandescent; F - Fluorescent; T - Mixed
- **25** — Wattage: 23 - 23 W; 06 - 60 W; 10 - 100 W; 16 - 160 W; 20 - 200 W; 25 - 250 W; 30 - 300 W
- **A** — Optional Reflector: A — Size 3; B — Size 1
- **A** — Optional Reflector Material: A- Aluminum; F - Porcelain Steel
- **1** — Optional Reflector Sizes: 1 - Shallow; 2 - Standard; 3 - Deep; 4 - Angle

Lamp	Wattage	T Rating +40 °C (+104 °F)	T Rating +55 °C (+131 °F)
Incandescent	60	T4	T4
	100	T4	T4
	200	T3	T3
	300	T3	T3
Compact Fluorescent	23	T6	T6
Mixed	160	T3	T3
	250	T3	T3

Pendant



Lamp Type and Wattage: Incandescent	Compact Fluorescent	Mixed	Socket	Dimensions mm (in): ØJ ①	A	B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ②③
60	—	—	E27	3/4"	334 (13.15)	170 (6.69)	4.02 (8.86)	10.61 (647.5)	**NE800AN1I06**
100	—	—	E27	3/4"	334 (13.15)	170 (6.69)	4.02 (8.86)	10.61 (647.5)	**NE800AN1I10**
200	—	—	E27	3/4"	334 (13.15)	170 (6.69)	4.02 (8.86)	10.61 (647.5)	**NE800AN1I20**
—	23	—	E27	3/4"	334 (13.15)	170 (6.69)	4.02 (8.86)	10.61 (647.5)	**NE800AN1F23**
—	—	160	E27	3/4"	334 (13.15)	170 (6.69)	4.02 (8.86)	10.61 (647.5)	**NE800AN1T16**
300	—	—	E40	3/4"	408 (16.06)	220 (8.66)	6.25 (13.78)	21.72 (1325.4)	**NE800AN3I30**
—	—	250	E40	3/4"	408 (16.06)	220 (8.66)	6.25 (13.78)	21.72 (1325.4)	**NE800AN3T25**

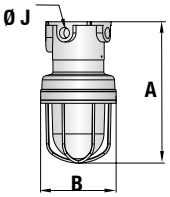
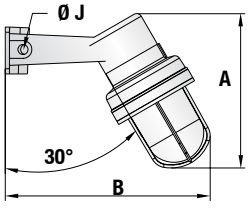
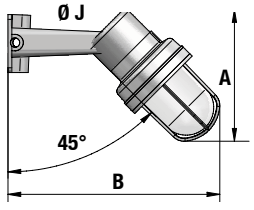
① ØJ: Ceiling, 30° wall, 45° wall and 90° wall mounts have four threaded entries. Pendant, 30° stanchion, and 90° stanchion mounts have one threaded entry.
*② For BSP threads, replace the letter **N** with the letter **B** in the 7th position. Example: NE800A**B**3T25.*
*For Metric threads, replace the letter **N** with the letter **M** in the 7th position. Example: NE800A**M**3T25.*
*③ For an option reflector add letter **B** for size 1 or letter **A** for size 3 to the catalog number in the 12th position; example: NE800AN3T25**A**. For an aluminum reflector add letter **A** or for porcelain steel add letter **F** to the catalog number in the 13th position; example: NE800AN3T25A**F**. For shallow reflector add number **1**, for a standard reflector add number **2**, for a deep reflector add number **3** or for an angled reflector add number **4** to the catalog number in the 14th position; example: NE800AN3T25AF**1**.*

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Nutsteel® NE800 Series Luminaires

Explosionproof. Compact Fluorescent, Incandescent, Mixed

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

		Lamp Type and Wattage				Dimensions mm (in)					
		Incandescent	Compact Fluorescent	Mixed	Socket	ØJ ①	A	B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③
Ceiling		60	—	—	E27	3/4"	322 (12.68)	170 (6.69)	4.49 (9.90)	10.23 (624.3)	**NE800BN1I06**
		100	—	—	E27	3/4"	322 (12.68)	170 (6.69)	4.49 (9.90)	10.23 (624.3)	**NE800BN1I10**
		200	—	—	E27	3/4"	322 (12.68)	170 (6.69)	4.49 (9.90)	10.23 (624.3)	**NE800BN1I20**
		—	23	—	E27	3/4"	322 (12.68)	170 (6.69)	4.49 (9.90)	10.23 (624.3)	**NE800BN1F23**
		—	—	160	E27	3/4"	322 (12.68)	170 (6.69)	4.49 (9.90)	10.23 (624.3)	**NE800BN1T16**
		300	—	—	E40	3/4"	398 (15.67)	220 (8.66)	6.45 (14.22)	21.18 (1292.5)	**NE800BN3I30**
		—	—	250	E40	3/4"	398 (15.67)	220 (8.66)	6.45 (14.22)	21.18 (1292.5)	**NE800BN3T25**
30° Wall		60	—	—	E27	3/4"	320 (12.60)	452 (17.80)	5.63 (12.41)	27.04 (1650.1)	**NE800CN1I06**
		100	—	—	E27	3/4"	320 (12.60)	452 (17.80)	5.63 (12.41)	27.04 (1650.1)	**NE800CN1I10**
		200	—	—	E27	3/4"	320 (12.60)	452 (17.80)	5.63 (12.41)	27.04 (1650.1)	**NE800CN1I20**
		—	23	—	E27	3/4"	320 (12.60)	452 (17.80)	5.63 (12.41)	27.04 (1650.1)	**NE800CN1F23**
		—	—	160	E27	3/4"	320 (12.60)	452 (17.80)	5.63 (12.41)	27.04 (1650.1)	**NE800CN1T16**
		300	—	—	E40	3/4"	392 (15.43)	508 (20.00)	7.71 (17.00)	48.19 (2940.7)	**NE800CN3I30**
		—	—	250	E40	3/4"	392 (15.43)	508 (20.00)	7.71 (17.00)	48.19 (2940.7)	**NE800CN3T25**
45° Wall		60	—	—	E27	3/4"	292 (11.5)	510 (20.08)	5.63 (12.41)	40.58 (2476.3)	**NE800DN1I06**
		100	—	—	E27	3/4"	292 (11.5)	510 (20.08)	5.63 (12.41)	40.58 (2476.3)	**NE800DN1I10**
		200	—	—	E27	3/4"	292 (11.5)	510 (20.08)	5.63 (12.41)	40.58 (2476.3)	**NE800DN1I20**
		—	23	—	E27	3/4"	292 (11.5)	510 (20.08)	5.63 (12.41)	40.58 (2476.3)	**NE800DN1F23**
		—	—	160	E27	3/4"	292 (11.5)	510 (20.08)	5.63 (12.41)	40.58 (2476.3)	**NE800DN1T16**
		300	—	—	E40	3/4"	360 (14.17)	574 (22.6)	7.71 (17)	48.19 (2940.7)	**NE800DN3I30**
		—	—	250	E40	3/4"	360 (14.17)	574 (22.6)	7.71 (17)	48.19 (2940.7)	**NE800DN3T25**

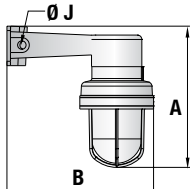
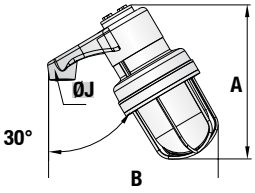
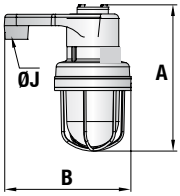
① ØJ: Ceiling, 30° wall, 45° wall and 90° wall mounts have four threaded entries. Pendant, 30° stanchion, and 90° stanchion mounts have one threaded entry.
*② For BSP threads, replace the letter **N** with the letter **B** in the 7th position. Example: NE800A**B**3T25.*
*For Metric threads, replace the letter **N** with the letter **M** in the 7th position. Example: NE800A**M**3T25.*
*③ For an option reflector add letter **B** for size 1 or letter **A** for size 3 to the catalog number in the 12th position; example: NE800AN3T25**A**. For an aluminum reflector add letter **A** or for porcelain steel add letter **F** to the catalog number in the 13th position; example: NE800AN3T25A**F**. For shallow reflector add number **1**, for a standard reflector add number **2**, for a deep reflector add number **3** or for an angled reflector add number **4** to the catalog number in the 14th position; example: NE800AN3T25AF**1**.*

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NE800 Series Luminaires

Explosionproof. Compact Fluorescent, Incandescent, Mixed

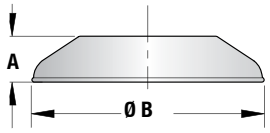
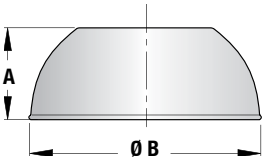
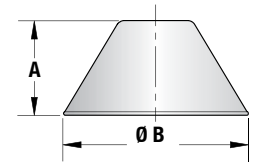
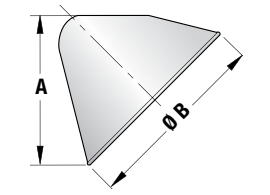
NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

		Lamp Type and Wattage				Dimensions mm (in)					
		Incandescent	Compact Fluorescent	Mixed	Socket	ØJ ①	A	B	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number ②③
90° Wall		60	—	—	E27	3/4”	352 (13.86)	380 (14.96)	6.19 (13.65)	25.01 (1526.2)	**NE800EN1I06**
		100	—	—	E27	3/4”	352 (13.86)	380 (14.96)	6.19 (13.65)	25.01 (1526.2)	**NE800EN1I10**
		200	—	—	E27	3/4”	352 (13.86)	380 (14.96)	6.19 (13.65)	25.01 (1526.2)	**NE800EN1I20**
		—	23	—	E27	3/4”	352 (13.86)	380 (14.96)	6.19 (13.65)	25.01 (1526.2)	**NE800EN1F23**
		—	—	160	E27	3/4”	352 (13.86)	380 (14.96)	6.19 (13.65)	25.01 (1526.2)	**NE800EN1T16**
		300	—	—	E40	3/4”	395 (15.55)	402 (15.83)	8.48 (18.70)	38.42 (2344.5)	**NE800EN3I30**
		—	—	250	E40	3/4”	395 (15.55)	402 (15.83)	8.48 (18.70)	38.42 (2344.5)	**NE800EN3T25**
30° Stanchion	**NE800F** 	60	—	—	E27	1-1/2”	320 (12.60)	355 (13.98)	4.17 (9.19)	21.24 (1296.1)	**NE800FN1I06**
		100	—	—	E27	1-1/2”	320 (12.60)	355 (13.98)	4.17 (9.19)	21.24 (1296.1)	**NE800FN1I10**
		200	—	—	E27	1-1/2”	320 (12.60)	355 (13.98)	4.17 (9.19)	21.24 (1296.1)	**NE800FN1I20**
		—	23	—	E27	1-1/2”	320 (12.60)	355 (13.98)	4.17 (9.19)	21.24 (1296.1)	**NE800FN1F23**
		—	—	160	E27	1-1/2”	320 (12.60)	355 (13.98)	4.17 (9.19)	21.24 (1296.1)	**NE800FN1T16**
		300	—	—	E40	1-1/2”	428 (16.85)	405 (15.94)	6.46 (14.24)	41.94 (2559.3)	**NE800FN3I30**
		—	—	250	E40	1-1/2”	428 (16.85)	405 (15.94)	6.46 (14.24)	41.94 (2559.3)	**NE800FN3T25**
90° Stanchion	**NE800H** 	60	—	—	E27	1-1/2”	344 (13.54)	340 (13.39)	4.37 (9.63)	21.87 (1334.6)	**NE800HN1I06**
		100	—	—	E27	1-1/2”	344 (13.54)	340 (13.39)	4.37 (9.63)	21.87 (1334.6)	**NE800HN1I10**
		200	—	—	E27	1-1/2”	344 (13.54)	340 (13.39)	4.37 (9.63)	21.87 (1334.6)	**NE800HN1I20**
		—	23	—	E27	1-1/2”	344 (13.54)	340 (13.39)	4.37 (9.63)	21.87 (1334.6)	**NE800HN1F23**
		—	—	160	E27	1-1/2”	344 (13.54)	340 (13.39)	4.37 (9.63)	21.87 (1334.6)	**NE800HN1T16**
		300	—	—	E40	1-1/2”	388 (15.28)	410 (16.14)	6.66 (14.68)	38.49 (2348.8)	**NE800HN3I30**
		—	—	250	E40	1-1/2”	388 (15.28)	410 (16.14)	6.66 (14.68)	38.49 (2348.8)	**NE800HN3T25**

① ØJ: Ceiling, 30° wall, 45° wall and 90° wall mounts have four threaded entries. Pendant, 30° stanchion, and 90° stanchion mounts have one threaded entry.
*② For BSP threads, replace the letter **N** with the letter **B** in the 7th position. Example: NE800A**B**3T25.*
*For Metric threads, replace the letter **N** with the letter **M** in the 7th position. Example: NE800A**M**3T25.*
*③ For an option reflector add letter **B** for size 1 or letter **A** for size 3 to the catalog number in the 12th position; example: NE800AN3T25**A**. For an aluminum reflector add letter **A** or for porcelain steel add letter **F** to the catalog number in the 13th position; example: NE800AN3T25A**F**. For shallow reflector add number **1**, for a standard reflector add number **2**, for a deep reflector add number **3** or for an angled reflector add number **4** to the catalog number in the 14th position; example: NE800AN3T25AF**1**.*

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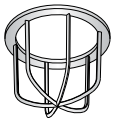
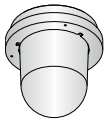
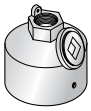
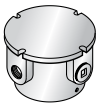
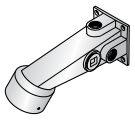
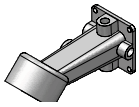
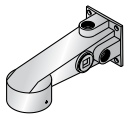
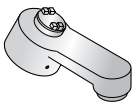
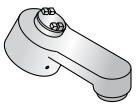
Reflectors

		Luminaire Type			Dimension mm (in) A	Dimension mm (in) Ø B	Weight kg (lb)	Volume dm³ (in³)	Catalog Number ①
Shallow Dome		NE800AN1	NE800DN1	NE800HN1	65 (2.56)	365 (14.37)	0.78 (1.72)	10.90 (665.2)	**NTREA104**
		NE800BN1	NE800EN1						
		NE800CN1	NE800FN1						
		NE800AN3	NE800DN3	NE800HN3	78 (3.07)	410 (16.14)	0.65 (1.43)	16.6 (1013.0)	**NEREA102**
		NE800BN3	NE800EN3						
		NE800CN3	NE800FN3						
Standard Dome		NE800AN1	NE800DN1	NE800HN1	110 (4.33)	370 (14.57)	0.85 (1.87)	18.2 (1110.6)	**NTREA202**
		NE800BN1	NE800EN1						
		NE800CN1	NE800FN1						
		NE800AN3	NE800DN3	NE800HN3	135 (5.31)	410 (16.14)	1.08 (2.38)	26.4 (1611.0)	**NEREA202**
		NE800BN3	NE800EN3						
		NE800CN3	NE800FN3						
Deep Dome		NE800AN1	NE800DN1	NE800HN1	115 (4.53)	247 (9.72)	0.43 (0.95)	9.1 (555.3)	**NTREA304**
		NE800BN1	NE800EN1						
		NE800CN1	NE800FN1						
		NE800AN3	NE800DN3	NE800HN3	130 (5.12)	370 (14.57)	0.63 (1.39)	23.2 (1415.8)	**NEREA302**
		NE800BN3	NE800EN3						
		NE800CN3	NE800FN3						
Angle		NE800AN1	NE800DN1	NE800HN1	165 (6.50)	270 (10.63)	0.44 (0.97)	10.5 (640.7)	**NTREA404**
		NE800BN1	NE800EN1						
		NE800CN1	NE800FN1						
		NE800AN3	NE800DN3	NE800HN3	225 (8.86)	360 (14.17)	0.52 (1.15)	32.8 (2001.6)	**NEREA402**
		NE800BN3	NE800EN3						
		NE800CN3	NE800FN3						

*① For reflector in porcelain steel, painted white on the inside and gray on the outside, replace the letter **A** with the letter **F** in the 5th position. Example: NEREF103.*

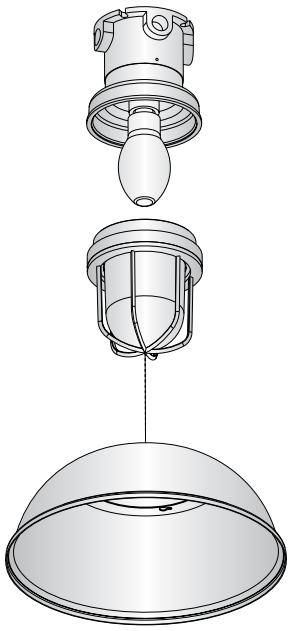
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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Accessories and Replacement Parts

	Description	Luminaire Type				Catalog Number
	Protective guard	NE800AN1 NE800BN1 NE800AN3 NE800BN3	NE800CN1 NE800DN1 NE800CN3 NE800DN3	NE800EN1 NE800FN1 NE800EN3 NE800FN3	NE800HN1 NE800HN3	**NFGRD851E**
	Lighting assembly: (Borosilicate Globe + Fixation Ring + Glass Support)	NE800AN1 NE800BN1 NE800AN3 NE800BN3	NE800CN1 NE800DN1 NE800CN3 NE800DN3	NE800EN1 NE800FN1 NE800EN3 NE800FN3	NE800HN1 NE800HN3	**NECJT851E** **NECJT853E**
	Pendant mounting bracket	NE800A		3/4" NPT Bracket		**NFACS85AN**
				3/4" BSP Bracket		**NFACS85AB**
				M25 Bracket		**NFACS85AM**
				1 - 1/4" NPT Plug		**NEBJS04N**
	Ceiling mounting bracket with 3 threaded entries	NE800B		3/4" NPT Bracket		**NFACS85BN**
				3/4" BSP Bracket		**NFACS85BB**
				M25 Bracket		**NFACS85BM**
				1 - 1/4" NPT Plug		**NEBJS04N**
	30° Wall type mounting bracket for mounting on wall	NE800C		3/4" NPT Bracket		**NFACS25CN**
				3/4" BSP Bracket		**NFACS25CB**
				M25 Bracket		**NFACS25CM**
				1 - 1/2" NPT Plug		**NEBJS05N**
	45° Wall mounting bracket for mounting on wall	NE800D		3/4" NPT Bracket		**NFACS25DN**
				3/4" BSP Bracket		**NFACS85DB**
				M25 Bracket		**NFACS25DM**
				1 - 1/2" NPT Plug		**NEBJS05N**
	90° Wall mounting bracket for mounting on pole	NE800E		1-1/2" NPT Bracket		**NFACS25EN**
				1-1/2" BSP Bracket		**NFACS25EB**
				M50 Bracket		**NFACS25EM**
				Inspection Cover		**NEBJS05N**
	30° Stanchion mounting bracket for mounting on pole	NE800F		1-1/2" NPT Bracket		**NFACS25FN**
				1-1/2" BSP Bracket		**NFACS25FB**
				M50 Bracket		**NFACS25FM**
				Inspection Cover		**NFTAMIE**
	90° Stanchion mounting bracket for mounting on pole	NE800H		1-1/2" NPT Bracket		**NFACS25HN**
				1-1/2" BSP Bracket		**NFACS25HB**
				M50 Bracket		**NFACS25HM**
				Inspection Cover		**NFTAMIE**

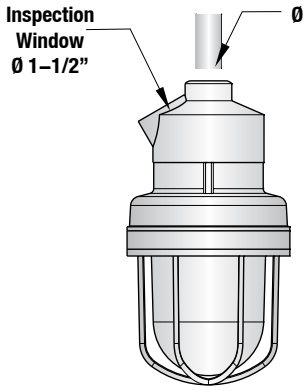
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Installation and Maintenance

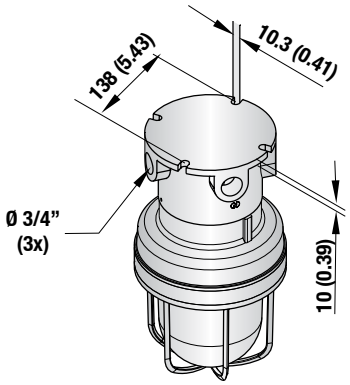


Mounting Details — Dimensions in Millimeters (Inches)

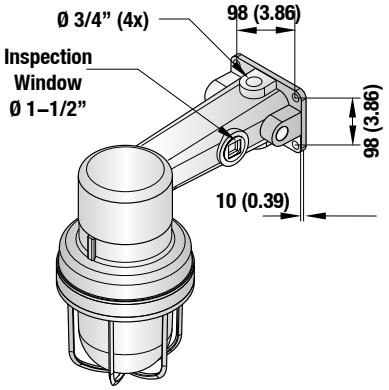
NE800A — Pendant



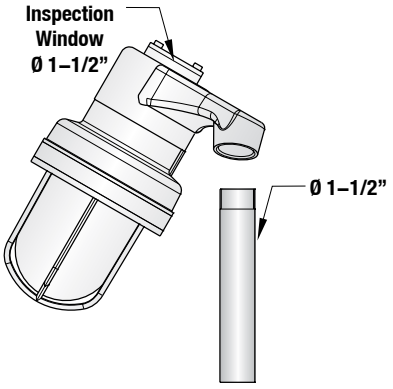
NE800B — Ceiling



NE800C, D, E — Wall

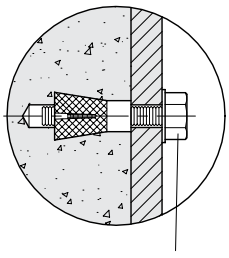


NE800F, H — Stanchion



For Affixing to Concrete

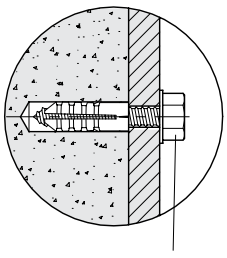
Steel Anchor Bolt (not included)



Screw Ø 3/8"

For Affixing to Masonry

Nylon Bushing (not included)



Screw Ø 3/8""

- *Any unused threaded entries must be sealed with an aluminum plug.*
- *In installations with conduit, it is recommended to use a sealing fitting, for all conduit outlets.*
- *Entry and exit of electrical conductors must be done with sealing unit or explosionproof cable glands*

Visit our website at www.nutsteel.com.br or contact us by phone + 55.11.2122.5777.
Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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Nutsteel® NE500 Series Portable Handlamps

Explosionproof

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIB Gb
Ex tb IIIB Db
IP65

Applications

- Portable handlamp developed especially for use in explosive atmospheres.
- Ideal for use in areas such as:
  - — Chemical plants
  - — Petrochemical plants
  - — Pharmaceutical manufacturing
  - — Food processing facilities
  - — Paint and varnish facilities
  - — Flammable material storage facilities

Features

- All versions come with:
  - — Sealed power cord
  - — Factory sealed inspection box
  - — Protective guard
  - — Flexible cord
  - — Cable gland
- NE500M and NE500M-M01 versions come with:
  - — Suspension hook
  - — Aluminium reflector
- NE500S version comes with:
  - — Handling support
- Lamp not supplied.
- Ex d: Flameproof method of protection suitable for Zone 1 and 2.
- tD: protection by enclosures suitable for Zone 21 and 22.

Standard Material

- Body, hook and guard: copperfree, die cast aluminum alloy
- Internal reflector: aluminum
- Socket: reinforced porcelain
- Globe: borosilicate glass
- Screws and washers: AISI 304 stainless steel
- Suspension hook: brass
- Handle: rubber

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

NBR IEC Brazilian Certifications and Compliances

- Operating Temperature: -5 °C to +40 °C (+23 °F to +104 °F)
- Temperature Class: T4
- Ingress Protection (solid and liquid): IP65
- INMETRO Certificate: TÜV 12.1176-X
- Ex Standards: ABNT NBR IEC 60079-0; 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- To avoid the cantilever of the threads, we recommend using Threadsteel® anti-oxide compound.



NE500M–M01
with Internal Reflector



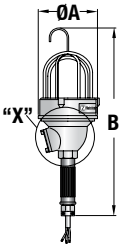
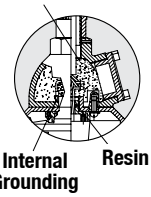
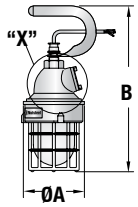
NE500M

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Nutsteel® NE500 Series Portable Handlamps

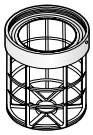
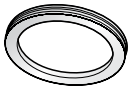
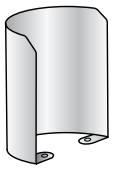
Explosionproof

NBR IEC:
Zone 1 and 2 – 21 and 22
Ex d IIB Gb
Ex tb IIIB Db
IP65

	Length of Power Cord	Lamp Type and Wattage			Dimensions mm (in)		Weight kg (lb)		Volume	
	m (ft)	Incandescent	PL	Socket	Ø A	B	Fixture	Cable	dm^3 (in^3)	Catalog Number
	10 (32.8)	100	23	E 27	150 (5.91)	510 (20.08)	3 (6.61)	1.7 (3.75)	30.5 (1861.2)	**NE500M1CE10**
NE500M/M01	20 (65.6)	100	23	E 27	150 (5.91)	510 (20.08)	3 (6.61)	3.5 (7.72)	41.1 (2508.1)	**NE500M1CE20**
	30 (98.4)	100	23	E 27	150 (5.91)	510 (20.08)	3 (6.61)	5.2 (11.46)	51.8 (3161.0)	**NE500M1CE30**
	40 (131.2)	100	23	E 27	150 (5.91)	510 (20.08)	3 (6.61)	7 (15.43)	62.4 (3807.9)	**NE500M1CE40**
	50 (164.0)	100	23	E 27	150 (5.91)	510 (20.08)	2.9 (6.39)	8.7 (19.18)	73.1 (4460.8)	**NE500M1CE50**
Detail "X"	10 (32.8)	100	23	E 27	150 (5.91)	380 (14.96)	3 (6.61)	1.7 (3.75)	30.54 (1863.7)	**NE500M1CE10M01**
Factory Sealed Box 	20 (65.6)	100	23	E 27	150 (5.91)	380 (14.96)	3 (6.61)	3.5 (7.72)	41.18 (2513.0)	**NE500M1CE20M01**
	30 (98.4)	100	23	E 27	150 (5.91)	380 (14.96)	3 (6.61)	5.2 (11.46)	51.83 (3162.9)	**NE500M1CE30M01**
	40 (131.2)	100	23	E 27	150 (5.91)	380 (14.96)	3 (6.61)	7 (15.43)	62.48 (3812.8)	**NE500M1CE40M01**
	50 (164.0)	100	23	E 27	150 (5.91)	380 (14.96)	3 (6.61)	8.7 (19.18)	16.85 (1028.3)	**NE500M1CE50M01**
	10 (32.8)	100	23	E 27	150 (5.91)	380 (14.96)	2.9 (6.39)	1.7 (3.75)	26.6 (1623.2)	**NE500S1CE10**
NE500S	20 (65.6)	100	23	E 27	150 (5.91)	380 (14.96)	2.9 (6.39)	3.5 (7.72)	37.3 (2276.2)	**NE500S1CE20**
	30 (98.4)	100	23	E 27	150 (5.91)	380 (14.96)	2.9 (6.39)	5.2 (11.46)	47.9 (2923.0)	**NE500S1CE30**
	40 (131.2)	100	23	E 27	150 (5.91)	380 (14.96)	2.9 (6.39)	7 (15.43)	58.5 (3569.9)	**NE500S1CE40**
	50 (164.0)	100	23	E 27	150 (5.91)	380 (14.96)	2.9 (6.39)	8.7 (19.18)	69.2 (4222.8)	**NE500S1CE50**

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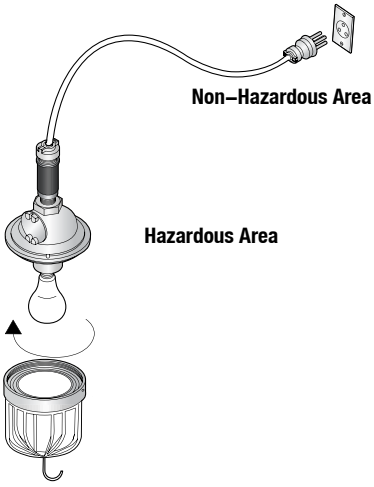
Accessories and Replacement Parts

	Description	Luminaire Type	Catalog Number
	Protective Guard	NE500M NE500M-M01	**NFGRD601E**
	Protective Guard	NE500S	**NFGRD501E**
	Fixing Ring	NE500M NE500M-M01 NE500S	**NFANE601E**
	Borosilicate Glass Globe	NE500M NE500M-M01 NE500S	**NXGLB601E**
	Support Handle	NE500S	**NESUP500**
	Reflector	NE500M-M01	**NXREF500**

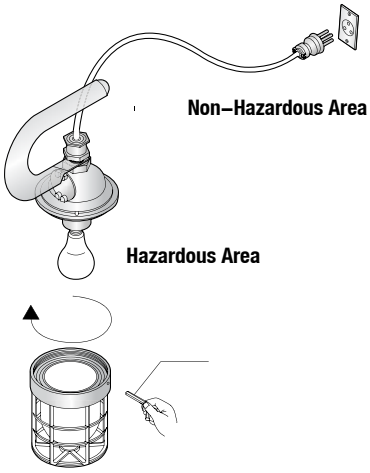
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Installation and Maintenance ②

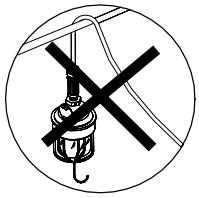
NE500M–M01/NE500M



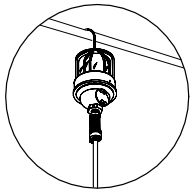
NE500S



IMPORTANT



DO NOT hang the light by the power cord.



Use the suspension hook in a safe place.

① *Caution: Do not use lamp other than specified, at the risk of explosion.*
② *To avoid risk of explosion, connect the plug outside the hazardous area, or use suitable socket and plug: Ex d, Ex e or Ex ed.*

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A.T.X.® SBDO Series Signaling and Lighting Bulkheads

Flameproof. Compact Fluorescent, Incandescent

ATEX/IEC:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK08

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB Gb
Ex tb IIIB Db
IP66

Applications

- For lighting and signaling.

Features

- For 7, 11, 15 Watt compact fluorescent or up to 100 Watt (maximum) incandescent (lamps not supplied).
- E27 lampholder.
- Operating in any position.
- Fixing by 2 integrated brackets.
- Connection to lampholder via two terminals 1 x 2.5 mm^2 (0.002 x 0.004 in^2).
- Internal earth two terminals 2.5 mm^2 (0.004 in^2), external earth 1 x 4 mm^2 (0.002 x 0.006 in^2).
- Two M20 entries through feed.
- Supplied with 1 blanking plug M20.



Compact Fluorescent
Painted Glass Version

Standard Materials

- Body and bezel: gray painted aluminum
- Sealed toughened lamp glass
- Guard: zinc plated steel

ATEX/IEC Certifications and Compliances

- Certification Type: HBOd
  - — Zone 1 - 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex d IIB
    - – T Rating: Incandescent: T4,Compact Fluorescent: T6
  - — Zone 21 - 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
    - – ATEX/IEC Protection: Ex tD A21
  - – Surface Temperature: Incandescent: T119 °C (T246 °F), Compact Fluorescent: T76 °C (T169 °F)
- Ambient Temperature: -20 °C to +40 °C (-4 °F to +104 °F)
- CE Declaration of Conformity: 50234
- ATEX Certificate: LCIE 02 ATEX 6162
- IECEx Certificate: LCIE Ex 0.3013
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66
- Impact Resistance (shock): IK08
- Internal Volume: ≤ 2 dm^3 (122 in^3) – 2 liters
- Ex Standards: EN/IEC 60079-0; 60079-1; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1
- EMC Standards: EN/IEC 55015; 61547
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: HBOd
- Gas: Zone 1 and 2
  - — IEC Marking: Ex d IIB Gb
- Dust: Zone 21 and 22:
  - — IEC Marking: Ex tb IIIB Db
- Ambient Temperature: -20 °C to +40 °C (-4 °F to +104 °F)
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0597
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK08
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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A.T.X.® SBDO Series Signaling and Lighting Bulkheads

Flameproof. Compact Fluorescent, Incandescent

ATEX/IEC:
Zone 1 and 2 – 21 and 22
II 2 GD
IP66 - IK08

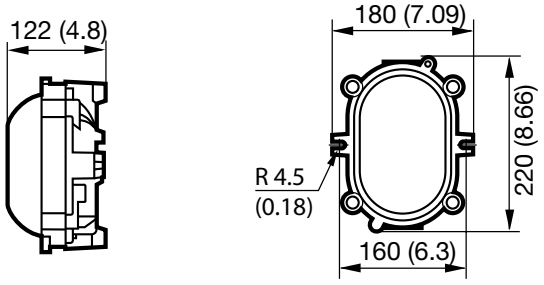
NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB Gb
Ex tb IIIB Db
IP66

Color (Painted Glass)	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
7 W to 15 W Compact Fluorescent or up to 60 W Incandescent				
Red	3 (6.61)	9 (549.21)	**SBDOSR**	**NSBDOSR**
Green	3 (6.61)	9 (549.21)	**SBDOSG**	**NSBDOSG**

Accessories and Replacement Parts

Description	Catalog Number IECEx	Catalog Number NBR IEC
Zinc Plated Steel Protective Guard	**HBDOPGZ**	**NHBDOPGZ**
Terminal block for through wiring 2 x 2.5 mm^2 (0.003 x 0.004 in^2)with high temperature sleeve	**094784**	**N094784**

Dimensions in Millimeters (Inches)



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A.T.X.® SBDS Series Beacon Lighting Units

Flameproof

ATEX/IEC:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66 - IK08

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

Applications

- For use in hazardous locations in a wide range of plants.
- In areas where audible signals cannot be heard.

Features

- Fixtures operate in any position.
- Suspension via integral bolt.
- Threaded flame path.
- Internal earth terminal 2 x 4 mm² (0.003 x 0.006 in²).
- External earth terminal 1 x 4 mm² (0.002 x 0.006 in²).
- Two M20 threaded entries with one blanking plug.
- Globe available in four colors: red, amber, green and clear (to be ordered separately).
- Static Beacon:
  - — E27 lamp holder.
  - — Permissible lamps not supplied:
    - – 100 W incandescent max.
    - – 18/20/25 W compact fluorescent
  - — Connection to lamp holder via two terminals 1 x 2.5 mm² (0.002 x 0.003 in²) or 2 x 4 mm² (0.003 x 0.006 in²) terminal block supplied.
- Rotating Beacon:
  - — E14 lamp holder.
  - — 40 W incandescent lamp supplied.
  - — Rotating speed: approximately 170 rotations per minute.
  - — Beaten mirror to reinforce bright effect.
  - — Connection via two terminals 2 x 4 mm² (0.003 x 0.006 in²).

Standard Materials

- Body and bezel: gray painted marine aluminum
- Glass: colorless sealed shock resistant
- Reflector for static beacon: internal aluminum
- Globe: colored polymethacrylate
- Protective guard: zinc plated steel
- Mounting bracket: zinc plated steel

ATEX/IEC Certifications and Compliances

- Certification Type: AB14
  - — Gas: Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex d IIB
    - – T Rating: See *T Rating (Gas) and Surface Temperature (Dust) Table*
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: See *T Rating (Gas) and Surface Temperature (Dust) Table*



Static Beacon with Red Globe



Rotating Beacon

- Ambient Temperature:
  - — Static: -40 °C to +50 °C (-40 °F to +122 °F)
  - — Rotating: -20 °C to +50 °C (-4 °F to +122 °F)
- CE Declaration of Conformity: 50231
- ATEX Certificate: LCIE 02 ATEX 6053
- IEC Certificate: LCIE Ex 02.004
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66
- Impact Resistance (shock): IK08
- Internal Volume: ≤ 122 in³/2 dm³ (2 liters)
- Ex Standards: EN/IEC 60079-0; 60079-1; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1
- EMC Standards: EN/55015; 61547
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)

NBR IEC Brazilian Certifications and Compliances

- Certification Type: AB14
  - — Gas: Zone 1 and 2
    - – IEC Marking: Ex d IIC Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
- Ambient Temperature: -40 °C to +50 °C (-40 °F to +122 °F)
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0480
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK08
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

ATEX/IEC — T Rating (Gas) and Surface Temperature (Dust) Table

	Ambient Temperature — T Rating for Gas				Ambient Temperature — Surface Temperature for Dust	
	Ta = +40 °C (+104 °F)		Ta = +50 °C (+122 °F)		Ta = +50 °C (+122 °F)	
Lamp Type and Wattage	T Rating	Cable Entry Temperature	T Rating	Cable Entry Temperature	Surface Temperature	Cable Entry Temperature
18 W Compact Fluorescent	T6	–	T5	–	+85 °C (+185 °F)	–
20 W Compact Fluorescent	T6	–	T5	–	+85 °C (+185 °F)	–
25 W Compact Fluorescent	T6	–	T5	–	+85 °C (+185 °F)	–
100 W Incandescent	T4	+115 °C (+239 °F)	T3	+125 °C (+257 °F)	+145 °C (+293 °F)	+125 °C (+257 °F)
40 W Rotating	T5	–	T4		+110 °C (+230 °F)	–

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A.T.X.® SBDS Series Beacon Lighting Units

Flameproof

ATEX/IEC:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66 - IK08

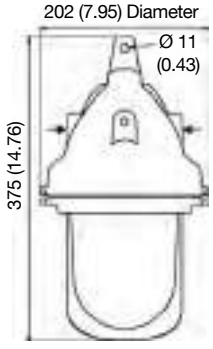
NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIC Gb
Ex tb IIIC Db
IP66

	Lamp Type and Wattage	Supply	Frequency (Hz)	Rating (Amps)	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
	**Clear Static Beacon**							
	100 W maximum	—	—	—	7.5 (16.53)	30 (1830.7)	**SBDSSC**	**NSBDSSC**
	Clear Rotating Beacon							
	40 W Incandescent	48 V ±10%	50/60 Hz	1 A	8.5 (18.74)	30 (1830.7)	**SBDSRC4004A**	**NSBDSRC4004A**
	40 W Incandescent	48 Vdc ±10%	—	1 A	8.5 (18.74)	30 (1830.7)	**SBDSRC4004D**	**NSBDSRC4004D**
	40 W Incandescent	110 V ±10%	50/60 Hz	0.5 A	8.5 (18.74)	30 (1830.7)	**SBDSRC4011A**	**NSBDSRC4011A**
	40 W Incandescent	230/240 V ±10%	50/60 Hz	0.23 A	8.5 (18.74)	30 (1830.7)	**SBDSRC4024A**	**NSBDSRC4024A**

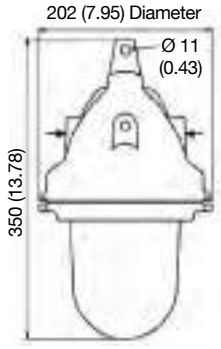
Accessories and Replacement Parts

	Type	Catalog Number IECEX	Catalog Number NBR IEC
	Polymethacrylate Globe		
	Red	**SBDGR**	**NSBDGR**
	Green	**SBDGG**	**NSBDGG**
	Amber	**SBDGA**	**NSBDGA**
	Clear	**SBDGC**	**NSBDGC**
	**Zinc Plated Steel Protective Guard**		
	Not to be used if a colored globe is used.	**LDPG1Z**	**NLDPG1Z**
	**Zinc Plated Steel Hinged Bracket**		
	For installation on flat surface	**LDPHBZ**	**NLDPHBZ**

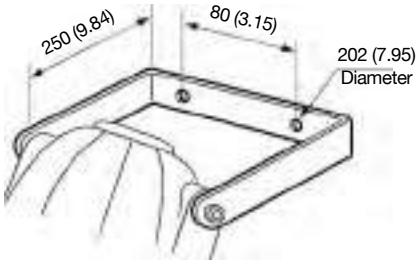
Dimensions in Millimeters (Inches)



Lighting Unit



Lighting Unit with Globe



LDPHBZ Mounting Bracket

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Visit our website at www.appletonelec.com or contact us by phone 1.800.621.1506.
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A.T.X.® SBDB Series Beacon and Strobe Lighting Units

Flameproof

ATEX/IEC:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/67 – IK8

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIC/Ex de IIC Gb
Ex t IIIC Db
IP66

Applications

- For use in hazardous locations in a wide range of plants.
- In areas where audible signals cannot be heard.
- To warn of unsafe conditions and other communication needs.

Features

- Fixtures operate in any position.
- Mounting strap for surface mounting supplied.
- High temperature internal wiring.
- Threaded flame path.
- Stainless steel fastenings.
- Closed by screwing on bezel.
- Connection through an increased safety Exe compartment with terminal block
  - — Two 0.003 x 0.009 in^2/2 x 6 mm^2 and two earth terminal 1 x 4 mm^2 (0.002 x 0.006 in^2).
- External earth terminal 1 x 4 mm^2 (0.002 x 0.006 in^2).
- Two side M20 threaded entries supplied with:
  - — 1 x M20 plastic cable-gland for unarmored cable — 6.5 to 14.5 mm (0.26 x 0.57 in) sealing diameter.
  - — 1 x M20 blanking plug.
- Static Beacon:
  - — E27 lamp holder.
  - — Permissible lamps not supplied:
    - – 100 W incandescent max.
    - – 18 W compact fluorescent.
  - — Globe available in four colors:
    - – Red, amber, green and clear (to be ordered separately).
- Rotating Beacon:
  - — E14 lamp holder.
  - — 40 W incandescent lamp supplied.
  - — Rotating speed: approximately 170 rotations per minute.
  - — Beaten mirror to reinforce bright effect.
  - — Globe available in four colors:
    - – Red, amber, green and clear (to be ordered separately).
- 5 Joules Strobe Beacon:
  - — Xenon lamp supplied.
  - — Instantaneous illuminance: 50,000 candles.
  - — Strobe 60 flashes per minute.
  - — Operating factor 100%.
  - — Life duration: 70% efficiency after 8 million flashes.
  - — Internal red colored lens supplied as standard.
  - — Other lenses available in five colors:
    - – Amber, blue, green, yellow and clear (factory installed).

Standard Material of Fixtures

- Body and bezel: gray painted marine aluminum
- Lens: colorless sealed shock resistant glass
- Internal reflector for static beacon: aluminum
- Mounting strap: gray painted aluminum

Standard Material of Accessories

- Globe: colored Polymethacrylate
- Protective guard: zinc plated steel

Options

- Other lens colors for strobe beacon



Strobe Lighting



Beacon Lighting

ATEX/IEC Certifications and Compliances

- Certification Type: LTd (model (LT1d)
  - — Gas: Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II 2 G
    - – ATEX/IEC Protection: Ex de IIC
    - – T Rating: See *Temperature Rating — Gas* table on following page
  - — Dust: Zone 21-22
    - – Conforming to ATEX 94/9/CE: CE 0081 Ⓔx II2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: See *Temperature Rating — Dust* table on following page
- Ambient Temperature:
  - — Strobe: -40 °C to +55 °C (-40 °F to +131 °F)
  - — Rotating Beacon: -20 °C to +50 °C (-4 °F to +122 °F)
- CE Declaration of Conformity: 50246
- ATEX Certificate: LCIE 02 ATEX 6165
- IEC Certificate: IECEx LCI Ex 04.0019
- Ingress Protection (solid and liquid): IP66/67
- Impact Resistance (shock): IK08

NBR IEC Brazilian Certifications and Compliances

- Certification Type: LT1d/LT2d
  - — Gas: Zone 1 and 2
    - – IEC Marking: Ex d IIC/Ex de IIC Gb
  - — Dust: Zone 21 and 22
    - – IEC Marking: Ex t IIIC Db
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0417
- Ingress Protection (solid and liquid): IP66
- Impact Resistance (shock): IK08
- Ex Standards: ABNT NBR IEC 60079-0, 60079-7, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

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A.T.X.® SBDB Series Beacon and Strobe Lighting Units

Flameproof

ATEX/IEC:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66/67 – IK8

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIC/Ex de IIC Gb
Ex t IIIC Db
IP66

Order using catalog numbering guide below or select catalog number from the following pages.

Catalog Numbering Guide — SBDB Series Beacon and Strobe Lighting Units

SBDB | **R** | **C** | **40** | **04A**

Series:
SBDB - SBDB Series
Zone 1 and 2 – 21 and 22
ATEX/IEC Certified

N SBDB - SBDB Series
Zone 1 and 2
NBR IEC Certified

Type:
S - Static
F - Flashing
R - Rotating

Color:
C - Clear
R - Red
A - Amber
G - Green
B - Blue
Y - Yellow

Wattage/Joules:
40 - 40 W
10 - 100 W
05 - 5 Joules

Voltage:
02D - 24 Vdc
02A - 24 Vac, 50/60 Hz
04D - 48 Vdc
04A - 48 Vac, 50/60 Hz
11A - 110 Vac, 50/60 Hz
11D - 110 Vdc
24A - 230/240 Vac, 50/60 Hz

Temperature Rating — Gas

Lamp Type and Wattage	Ambient Temperature					
	Lighting Downwards			Lighting Upwards		
Ta =	+40 °C (+104 °F)	+50 °C (+122 °F)	+55 °C (+131 °F)	+40 °C (+104 °F)	+50 °C (+122 °F)	+55 °C (+131 °F)
18 W Fluorescent Compact	T6	T6	T6	T6	T5	T5
100 W Incandescent	T4	T3	T3	T3	T3	T3
40 W Rotating	T5	T4	T4	T5	T4	T4
Strobe 5 Joules	T6	T6	T6	T6	T6	T6

Temperature Rating — Dust

Lamp Type and Wattage	Positions	
	Lighting Downwards	Lighting Upwards
Ta =	+55 °C (+131 °F)	+55 °C (+131 °F)
18 W Fluorescent Compact	T80 °C (T176 °F)	T95 °C (T203 °F)
100 W Incandescent	T195 °C (T383 °F)	T195 °C (T383 °F)
40 W Rotating	T130 °C (T266 °F)	T130 °C (T266 °F)
Strobe 5 Joules	T80 °C (T176 °F)	T80 °C (T176 °F)

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A.T.X.® SBDB Series Beacon and Strobe Lighting Units

Flameproof

ATEX/IEC:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/67 – IK8

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIC/Ex de IIC Gb
Ex t IIIC Db
IP66

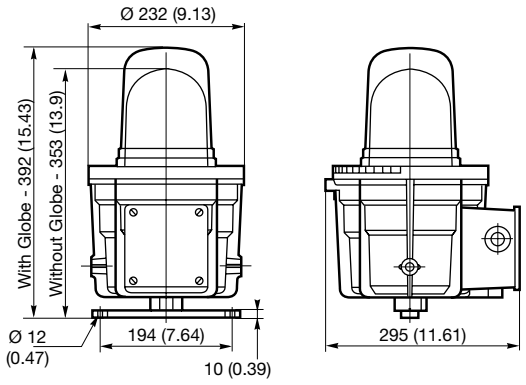
Type	Supply			Rating (Amps)	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
Clear Static Beacon								
100 W Maximum	—	—	—	—	7.5 (16.3)	30 (1830.7)	**SBDBSC**	**NSBDBSC**
Clear Rotating Beacon								
40 W	48 Vac	+-10%	50/60 Hz	1A	8.5 (18.74)	30 (1830.7)	**SBDBRC4004A**	**NSBDBRC4004A**
40 W	48 Vdc	+-10%	—	1A	8.5 (18.74)	30 (1830.7)	**SBDBRC4004D**	**NSBDBRC4004D**
40 W	110 Vac	+-10%	50/60 Hz	0.5A	8.5 (18.74)	30 (1830.7)	**SBDBRC4011A**	**NSBDBRC4011A**
40 W	230/240 Vac	+-10%	50/60 Hz	0.23A	8.5 (18.74)	30 (1830.7)	**SBDBRC4024A**	**NSBDBRC4024A**
Red Strobe Beacon								
5 joules	24 Vac	20-30 V	50/60 Hz	220 mA	8.5 (18.74)	30 (1830.7)	**SBDBFR0502A**	**NSBDBFR0502A**
5 joules	24 Vdc	18-35 V	—	230 mA	8.5 (18.74)	30 (1830.7)	**SBDBFR0502D**	**NSBDBFR0502D**
5 joules	48 Vac	40-54 V	50/60 Hz	180 mA	8.5 (18.74)	30 (1830.7)	**SBDBFR0504A**	**NSBDBFR0504A**
5 joules	48 Vdc	40-60 V	—	150 mA	8.5 (18.74)	30 (1830.7)	**SBDBFR0504D**	**NSBDBFR0504D**
5 joules	110 Vac	90-135 V	50/60 Hz	110 mA	8.5 (18.74)	30 (1830.7)	**SBDBFR0511A**	**NSBDBFR0511A**
5 joules	110 Vdc	88-132 V	—	90 mA	8.5 (18.74)	30 (1830.7)	**SBDBFR0511D**	**NSBDBFR0511D**
5 joules	230/240 Vac	185-255 V	50/60 Hz	55 mA	8.5 (18.74)	30 (1830.7)	**SBDBFR0523A**	**NSBDBFR0523A**

Accessories and Replacement Parts

	Description	Catalog Number IECEx	Catalog Number NBR IEC
Polymethacrylate Globe			
	Red	**SBDGR**	**NSBDGR**
	Green	**SBDGG**	**NSBDGG**
	Amber	**SBDGA**	**NSBDGA**
	Clear	**SBDGC**	**NSBDGC**
Zinc Plated Steel Protective Guard			
	Using without colored globe	**LDPG1Z**	**NLDPG1Z**
Zinc Plated Steel Hinged Bracket			
	Bracket for installation on flat surface	**LDMHBZ**	**NLDMHBZ**
Zinc Plated Steel M10 Eyebolt			
	Eyebolt for suspension	**LDRBM10Z**	**NLDRBM10Z**

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Dimensions in Millimeters (Inches)



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A.T.X.® SBDC Series Strobe Lighting and Static Triple Indicator

Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
⟨Ex⟩ II 2 GD
IP66/67 - IK08

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB+H_2/Ex d IIC Gb
Ex tb IIIC Db
IP66/68

Applications

- For use in hazardous locations in a wide range of plants.
- In areas where audible signals cannot be heard.
- To warn of unsafe conditions and other communication needs.

Features

- Threaded access cover with O-ring seal.
- Supplied with two external fixing lugs.
- Fixtures operate in any position.
- External earth terminal 1 x 4 mm² (0.002 x 0.006 in²).
- Two side M20 threaded entries supplied with 1 x M20 blanking plug.
- 15 Joules Strobe Beacon:
  - — Xenon lamp supplied.
  - — Instantaneous illuminance: 150,000 candelas.
  - — Strobe 45 flashes per minute.
  - — Operating factor: 10 min. stop after one hour operation.
  - — Life duration: 70% efficiency after 8 million flashes.
  - — Internal red colored lens supplied as standard.
  - — Other lenses available in five colors:
    - – Amber, blue, green, yellow and clear (factory installed).
  - — Connection to plug-in terminal block via 2 x 3 x 2.5 mm² (0.003 x 0.005 x 0.004 in²) terminal.
- Static Triple Indicator Unit:
  - — Ba15d lamp holders.
  - — Permissible lamps not supplied:
    - – 7 W incandescent or multi LED lamps.
  - — Operating factor 100%.
  - — Supplied with three colored interchangeable modules:
    - – Red, yellow and green.
  - — Each module is controlled separately.
  - — Possibility of coupling two modules for simultaneous operation.
  - — Connection to plug-in terminal block via 2 x 5 x 2.5 mm² (0.003 x 0.008 x 0.004 in²) terminal.

Standard Materials

- End caps and cover: anti-corrosive gray painted Zamak
- O-ring seal: Nitrile
- Sealed toughened glass.
- Fixing lug: zinc plated steel
- Protective guard: zinc plated steel

Options

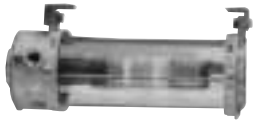
- Other colored module for static triple indicator unit.
- Other lens colors available for strobe lighting

ATEX/IEC Certifications and Compliances

- Certification Type: FLd
  - — Gas: Zones 1 and 2
    - – Conforming to ATEX 94/9/CE: CE 0081 ⟨Ex⟩ II 2 G
    - – ATEX/IEC Protection: Ex d IIC
    - – T Rating: See *T Rating (Gas) and Surface Temperature (Dust) Table*
  - — Dust: Zone 21 and 22
    - – Conforming to ATEX 94/9/CE: CE 0081 ⟨Ex⟩ II 2 D
    - – ATEX/IEC Protection: Ex tD A21
    - – Surface Temperature: See *T Rating (Gas) and Surface Temperature (Dust) Table*
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- CE Declaration of Conformity: 50203
- ATEX Certificate: LCIE 97 ATEX 6012
- IECEx Certificate: IECEx LCI 04.0018
- Other Certifications: GOST
- Index of Protection (solid and liquid): IP66/68 (10 meters)
- Impact Resistance (shock): IK08
- Internal Volume: ≤ 2 dm³ (122 in³) — 2 liters
- Ex Standards: EN/IEC 60079-0; 60079-1; 61241-0; 61241-1
- Product Standards: EN/IEC 60598-1
- EMC Standards: EN/IEC 55015; 61547
- Other Standards: EN/IEC 60529 (IP); 62262 (IK)



Strobe Lighting



Multiple Static Indicator

NBR IEC Brazilian Certifications and Compliances

- Certification Type: FLd
  - — Gas: Zone 1 and 2:
    - – IEC Marking: Ex d IIB+H_2/Ex d IIC Gb
  - — Dust, Zone 21 and 22
    - – IEC Marking: Ex tb IIIC Db
- Ambient temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- INMETRO Ordinance 179
- INMETRO Certificate: BVC 11.0492
- Ingress Protection: IP66/68 (10 meters)
- Impact Resistance (shock): IK08
- Ex Standards: ABNT NBR IEC 60079-0, 60079-1, 60079-31
- Other Standards: ABNT NBR IEC 60529 (IP)

Related Products

- For labels see *Labels for Emergency Lighting Units, ATX Self-Adhesive Signaling Labels for Emergency Lighting Units*.

T Rating (Gas) and Surface Temperature (Dust) Table

	Gas		Dust
Ambient Temperature	**Ta = +40 °C (+104 °F)**	**Ta = +55 °C (+131 °F)**	**Ta = +55 °C (+131 °F)**
Strobe 15 Joules	T6	T5	T95 °C (T203 °F)
Static Indicator	T6	T6	T80 °C (T176 °F)

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A.T.X.® SBDC Series Strobe Lighting and Static Triple Indicator

Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/67 - IK08

NBR IEC:
Zone 1 and 2 - 21 and 22
Ex d IIB+H_2/Ex d IIC Gb
Ex tb IIIC Db
IP66/68

Catalog Numbering Guide

SBDC — Series:
SBDC - SBDC Series
Zone 1 and 2 – 21 and 22
ATEX/IEC Certified

N SBDC - SBDC Series
Zone 1 and 2
NBR IEC Certified

F — Type:
S - Static
F - Flashing

R — Color:
C - Clear
R - Red
A - Amber
G - Green
B - Blue
Y - Yellow
M - Red/Yellow/Green

15 — Wattage/Joules:
15 - 15 Joules
LD - LED Lamp
07 - 7 W

02D — Voltage:
02D - 24 Vdc
02A - 24 Vac, 50/60 Hz
04D - 48 Vdc
04A - 48 Vac, 50/60 Hz
11A - 110 Vac, 50/60 Hz
23A - 230/240 Vac, 50/60 Hz

Red Strobe Beacon

	Type	Supply			Rating (Amps)	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx ①②	Catalog Number NBR IEC ③④
	15 joules	24 Vdc	18-30 V	—	700 mA	6.8 (14.99)	31 (1891.7)	**SBDCFR1502D**	**NSBDCFR1502D**
	15 joules	48 Vdc	40-60 V	—	350 mA	6.8 (14.99)	31 (1891.7)	**SBDCFR1504D**	**NSBDCFR1504D**
	15 joules	110 Vac	95-127 V	50/60 Hz	350 mA	6.8 (14.99)	31 (1891.7)	**SBDCFR1511A**	**NSBDCFR1511A**
	15 joules	230 Vac	185-255 V	50/60 Hz	190 mA	6.8 (14.99)	31 (1891.7)	**SBDCFR1523A**	**NSBDCFR1523A**

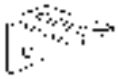
Triple Static Indicator

	Type	Lamp Holder	Wattage	Weight kg (lb)	Volume dm³ (in³)	Catalog Number IECEx ②	Catalog Number NBR IEC ④
	Red, yellow and green 230 Vac, 50/60 Hz	Ba15d	7 W	6.8 (14.99)	31 (1891.7)	**SBDCSM0723A**	**NSBDCSM0723A**

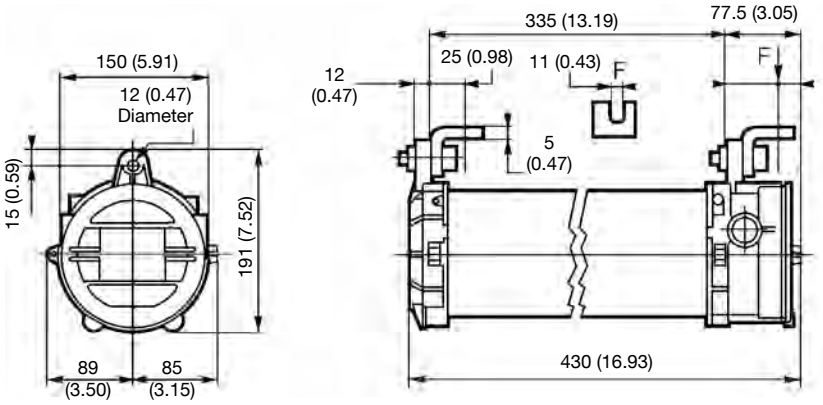
*① For lens color other than Red on the IECEx certified product change the replace the letter **R** in the 5th position to the appropriate option: **C** for Clear, **A** for Amber, **G** for Green, **B** for Blue or **Y** for Yellow. Example for clear lens: SBDCF**C**1502D.*
*② For LED lamp on the IECEx certified product change the replace the letters **15** or **07** with the letters **LD** in the 7th and 8th positions. Example: SBDCFR**LD**02D.*
*③ For lens color other than Red on the NBR IEC certified product change the replace the letter **R** in the 6th position to the appropriate option: **C** for Clear, **A** for Amber, **G** for Green, **B** for Blue or **Y** for Yellow. Example for clear lens: NSBDCF**C**1502D.*
*④ For LED lamp on the NBR IEC certified product change the replace the letters **15** or **07** with the letters **LD** in the 8th and 9th positions. Example: NSBDCFR**LD**02D.*

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Accessories and Replacement Parts

Type	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number IECEx	Catalog Number NBR IEC
Mounting Brackets – Quick One Hand Fixings: Set of Two				
 Zinc plated steel	0.40 (0.88)	0.7 (42.7)	**FDFBZ**	**NFDFBZ**
Stainless steel			**FDFBS**	**NFDFBS**
Surface Mounting Brackets: Set of Two				
 Zinc plated steel	0.55 (1.21)	0.5 (30.5)	**FDSBZ**	**NFDSBZ**
Stainless steel			**FDSBS**	**NFDSBS**
Half Clamps – Set of Two – Zinc Plated Steel				
 42 mm (1.25") to 49 mm (1.5")	0.80 (1.76)	0.5 (30.5)	**FDHC49Z**	**NFDHC49Z**
60 mm (2")			**FDHC60Z**	**NFDHC60Z**
Protective Guard				
 Zinc plated steel	0.55 (1.21)	8.0 (488.2)	**FDPG1Z**	**NFDPG1Z**

Dimensions in Millimeters (Inches)



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A.T.X.® Self–Adhesive Signaling Labels for Emergency Lighting Units

For use on Appleton/ATX emergency lighting luminaires: FDBAES, FDES and FNES Series

Features

- Select styles available in French, English, Spanish, Portuguese and version which conform to Directive CEE 77-576.

Standard Materials

- Plastic coated
- White lettering.
- Green background.

	Length mm (in)	Width mm (in)	Units per Pack	Catalog Number IECEX	Catalog Number NBR IEC
French					
	237 (9.33)	53 (2.09)	10	**094904**	**N94904**
	237 (9.33)	53 (2.09)	10	**094905**	—
	237 (9.33)	109 (4.29)	10	**094906**	—
	172 + 57 (6.77 + 2.24)	57 (2.24)	10	**094907**	—
	237 (9.33)	109 (4.29)	5	**094908**	—
	237 (9.33)	109 (4.29)	5	**094909**	**N94909**
	237 (9.33)	109 (4.29)	5	**094910**	**N94910**
English					
	230 (9.06)	45 (1.77)	5	**094915**	**N94915**
	230 (9.06)	90 (3.54)	5	**094916**	**N94916**
	230 (9.06)	45 (1.77)	5	**094917**	**N94917**
Spanish					
	237 (9.33)	109 (4.29)	5	**094919**	**N94919**
	175 + 57 (6.89 + 2.24)	57 (2.24)	5	**094918**	**N94918**
Portuguese					
	237 (9.33)	109 (4.29)	5	**094913**	**N94913**
	175 + 57 (6.89 + 2.24)	57 (2.24)	5	**094914**	**N94914**
Conforming to Directive CEE 77-576					
	237 (9.33)	109 (4.29)	5	**094911**	**N94911**
	237 (9.33)	109 (4.29)	5	**094912**	**N94912**

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Nutsteel® NTSUS2 Series Articulated Mount

Industrial

Applications

- Designed for the suspension of lighting fixtures.

Features

- Provides a deviation of up to 30°.
- Counterpiece includes internal spring, screws and washers.
- BSP and NPT threads standard.

Standard Material

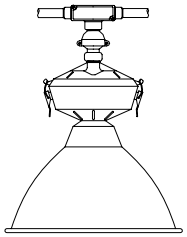
- Body and counterpiece: copperfree cast aluminum alloy
- Internal spring, screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

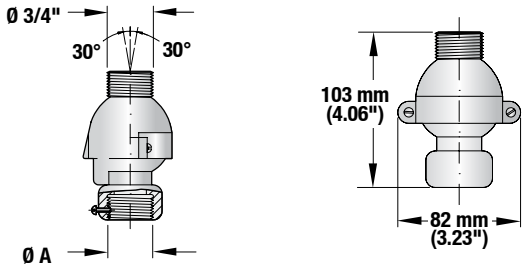


Illustrated Installation



Ø A	Weight kg (lb)	Catalog Number BSP	Catalog Number NPT
1/2”	0.21 (0.46)	**NTSUS201B**	**NTSUS201N**
3/4”	0.22 (0.47)	**NTSUS202B**	**NTSUS202N**

Dimensions in Millimeters (Inches)



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Nutsteel® NTSUS1 Series Anti–Vibration Mount

Industrial

Applications

- Designed for the suspension of lighting fixtures.

Features

- Protects fixture from wind and vibration damage.
- Counterpiece includes internal spring, screws and washers.
- BSP and NPT threads standard.

Standard Material

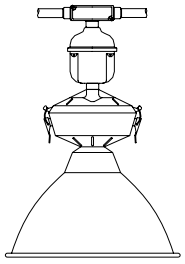
- Body and counterpiece: copperfree cast aluminum alloy
- Internal spring, screws and washers: AISI 304 stainless steel

Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

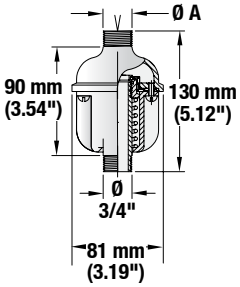


Illustrated Installation



Ø A	Weight kg (lb)	Catalog Number BSP	Catalog Number NPT
1/2”	0.43 (0.95)	**NTSUS101B**	**NTSUS101N**
3/4”	0.44 (0.97)	**NTSUS102B**	**NTSUS102N**

Dimensions in Millimeters (Inches)



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Nutsteel® NT500 Series Portable Luminaires

Weatherproof. Watertight. Incandescent, Compact Fluorescent

NBR IEC:
IP65



Applications

- Designed for use in environments that contain moisture, nonflammable gases and vapors, such as:
  — Washing bays
  — Machine rooms
  — Electroplating facilities, etc

Features

- Comes assembled with power cord.
- Lamp not supplied.

Standard Material

- Body: cast aluminum alloy
- Handle: rubber
- Globe: thermal shock and impact resistant glass
- Socket: porcelain
- Gasket: heat-resistant
- Screws and suspension: AISI 304 stainless .steel

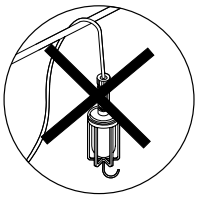
Standard Finishes

- Gray anticorrosive REVESTEEL® coating; provides excellent resistance to chemical corrosion, mechanical and UV exposure

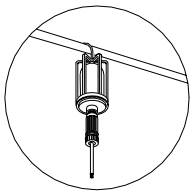
Certifications and Compliances

- Ingress Protection (solid and liquid): IP65
- Other standards: ABNT NBR IEC 60529 (IP)

Important

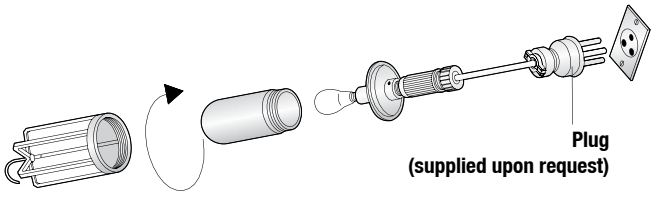


DO NOT hang the light by the power cord.



Use the suspension hook in a safe place.

Installation and Maintenance

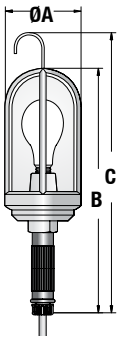


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Nutsteel® NT500 Series Portable Luminaires

Weatherproof. Watertight. Incandescent, Compact Fluorescent

NBR IEC:
IP65



Power cord length m (yd)	Lamp Type and Wattage			Dimensions mm (in)			Weight kg (lb)		Volume dm³ (in³)	Catalog Number
	Incandescent	Compact Fluorescent	Socket	Ø A	B	C	Luminaire	Cord	Luminaire+Cord	
10 (10.94)	100	11	E27	110 (4.33)	385 (15.16)	470 (18.50)	1.19 (2.62)	1.7 (3.75)	21.90 (0.0013)	**NT500M1CE10**
20 (21.8)	100	11	E27	110 (4.33)	385 (15.16)	470 (18.50)	1.19 (2.62)	3.5 (7.72)	32.60 (0.0019)	**NT500M1CE20**
30 (32.81)	100	11	E27	110 (4.33)	385 (15.16)	470 (18.50)	1.19 (2.62)	5.2 (11.46)	43.20 (0.0026)	**NT500M1CE30**
40 (43.74)	100	11	E27	110 (4.33)	385 (15.16)	470 (18.50)	1.19 (2.62)	7.0 (15.43)	53.90 (0.0033)	**NT500M1CE40**
50 (54.68)	100	11	E27	110 (4.33)	385 (15.16)	470 (18.50)	1.19 (2.62)	8.7 (19.18)	64.50 (0.0039)	**NT500M1CE50**
0	100	11	E27	110 (4.33)	385 (15.16)	470 (18.50)	1.19 (2.62)	—	8.30 (0.0005)	**NT500M1SC00**

Replacement Parts

	Description	Catalog Number
	Protective Guard	**NFGRD601T**
	Glass Globe	**NXGLB601T**
	Rubber Handle	**NTMAN500**

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