

Intraground™ N1 Series Nonmetallic Tumbler Switches

Explosionproof

Enclosures and Covers Have Neutral Color. Non-Factory Sealed. ①

NEC:

Class I, Division 1 and 2, Groups C, D
NEMA 3, 4X, 7CD, 12

Applications

- Listed for use in Class I, Group C and D, Division 1 and 2 atmospheres such as:
 - Diethyl ether
 - Methyl ethyl ketone
 - Acetone
 - Toluene
 - No. 3 fuel oil
 - Ammonium hydroxide (20%)
 - Benzene
 - Regular unleaded gas
 - Ethyl acetate
 - Hexane and methanol
- Not suitable for:
 - Ethylene dichloride
 - Partially halogenated hydrocarbons.
- Sealing fittings must be field installed adjacent to enclosure on all conduit runs. ①
- Explosionproof. With sealing fittings installed at each conduit entrance, the N1 Series enclosures withstood a hydrostatic test of four times the maximum internal explosion pressure that could be developed from a gas or vapor explosion in actual use.

Features

- Nonmetallic construction with metal imbedded grounding grid. No need to install special wires and parts for grounding. Feed-thru or dead-end grounded 1/2" or 3/4" conduit openings for threaded conduit.
- Special grounding wire furnished with each box provides safe grounding when cover is removed.
- Ideal for use in corrosive environments. Nonmetallic enclosures with corrosion resistant parts coated with epoxy, Teflon® ② or Mylar® ②, these switches offer unsurpassed resistance to a wide variety of corrosive chemicals.
- Unique labyrinth-path construction assures flame-tight joint between body and cover.
- Silicone gasket, specially designed for the labyrinth-path joint, prevents entrance of moisture without interfering with the venting of cooled hazardous gases and vapors.
- Typical mechanical properties of 24,500 psi tensile strength, 3% elongation at break, 33,000 psi flexural strength, and 1,200,000 psi flexural modulus.
- Electrical properties of sample specimens: dielectric strength (in air) of 769 at 1/16".
- High strength thermoplastic polyetherimide, together with thick walls (5/16") and sound structural design (rounded corners) provides superior resistance to impact and crushing.
- Excellent resistance to ultraviolet light and water.
- Excellent conduit connection strength.
- Excellent resistance to attack by fungi and mold.
- Excellent heat deflection temperature: sample specimens rated at +210 °C (+410 °F).
- UL Temperature Index (continuous use temperature): +170 °C (+338 °F) electrical properties, +170 °C (+338 °F) mechanical properties with impact.
- Superior flammability resistance.



- Enclosures have external mounting lugs for ease of mounting.
- Smooth, rounded integral bushing in each hub protects conductor insulation.
- 20 Amp and 30 Amp units available for use with 120-277 Vac.
- Corrosion resistant, strong stainless steel Teflon® ② coated hex head cap screws attach cover and body for approved flame-tight construction.
- Operating handle has close-tolerance threaded stainless steel shaft to meet explosionproof requirements. Provides positive corrosion resistant operation.
- Handle may be locked in ON or OFF position.

Standard Materials

- Body and cover: 30% glass-reinforced thermoplastic polyetherimide — neutral color
- Handle: nylon 6/6
- Cover bolts: stainless steel
- Nameplates: aluminum

Standard Finishes

- Cover bolts: Teflon® ②
- Nameplates: Mylar® ②

NEC Certifications and Compliances

- UL Standards: UL 894, UL 1203
- UL Listed: E10523

Related Products

- For classified-location push button, pilot light and selector switch control stations, see *Non-Hazardous Control Stations Section*.
- For sealing fittings, See *Hazardous Location Fittings Section*.

① Sealing fittings not furnished. Sealing fittings must be field-installed adjacent to enclosure on all conduit runs. See *Hazardous Location Fittings Section*.

② Teflon and Mylar are registered trademarks of E. I. du Pont de Nemours and Company.

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Aluminum grounding grid, imbedded into the nonmetallic enclosure during molding, provides complete grounding system. No field work. No extra grounding wires or parts required.

Appleton®

CONTROLS: NEC/CEC EXPLOSIONPROOF CONTROL STATIONS AND SWITCHES

Switch	Hub Size (Inches)	Catalog Number ②				
		20 Ampere – 120–277 Vac ③		30 Ampere – 120–277 Vac ④		
		Dead-End	Feed-Thru	Dead-End	Feed-Thru	
1-Gang Tumbler Switches						
	1-Pole	1/2 or 3/4	N1D75-F1	N1DC75-F1	N1D75-F13	N1DC75-F13
	2-Pole	1/2 or 3/4	N1D75-F2	N1DC75-F2	N1D75-F23	N1DC75-F23
	3-Way	1/2 or 3/4	N1D75-F3W	N1DC75-F3W	N1D75-F3W3	N1DC75-F3W3
	4-Way	1/2 or 3/4	N1D75-F4W	N1DC75-F4W	-	-

Switch	Catalog Number ②				
	20 Ampere – 120–277 Vac ③		30 Ampere – 120–277 Vac ④		
	Cover	Switch	Cover	Switch	
1-Gang Covers and Switches					
<i>All covers furnished with four bolts and blank nameplate.</i>					
 	1-Pole	N1K-F12	EFSFR1Q	N1K-F12	EFSFR13Q
	2-Pole	N1K-F12	EFSFR2Q	N1K-F12	EFSFR23Q
	3-Way	N1K-F34W	EFSFR3WQ	N1K-F34W	EFSFR3W3Q
	4-Way	N1K-F34W	EFSFR4WQ		

Hub Size (Inches)	Catalog Number ②	
	Dead-End	Feed-Thru
1-Gang Nonmetallic Mounting Bodies		
<i>For use with covers above.</i>		
	1/2 or 3/4	N1D75Q N1DC75Q

① Sealing fittings must be field-installed adjacent to enclosure on all conduit runs.
 ② Furnished with a 3/4" to 1/2" NPT reducer.
 ③ 20 Amp – 1 HP at 120 Vac and 2 HP at 240 Vac.
 ④ 30 Amp – 2 HP at 120 Vac or 240 Vac.

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Nameplate Mounting Bracket

Description

Catalog Number



Bracket for N1 Series

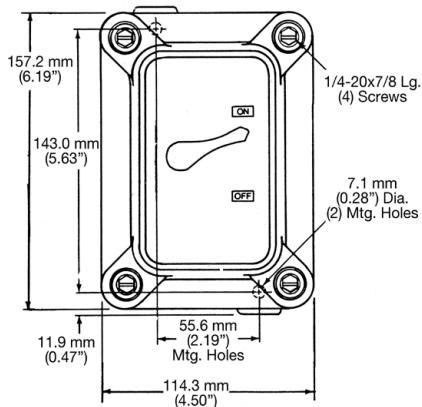
NPBRKT-N1N2

To order bracket with control station, add suffix **-NPBRKT** to end of catalog number.

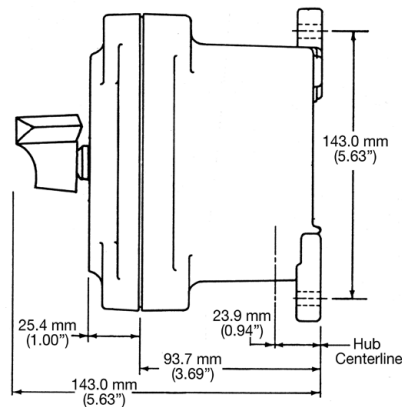
Note: Mount bracket between cover screws and cover. Do not mount bracket between ground joint flame path between cover and backbox.

Dimensions in Millimeters (Inches)

Front Operated Tumbler Switches

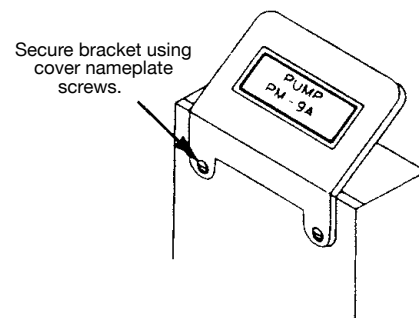
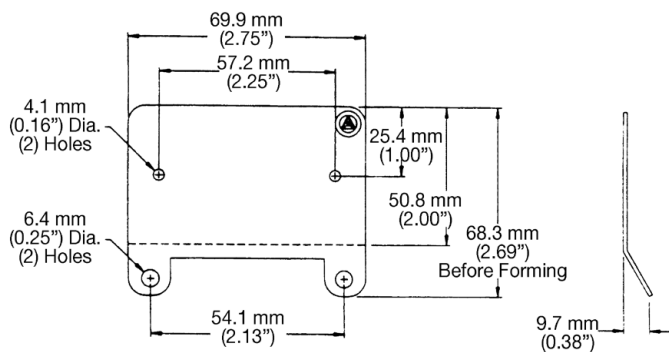


Front



Side

NPBRKT Nameplate Mounting Bracket



Secure bracket using cover nameplate screws.

① Sealing fittings not furnished. Sealing fittings must be field-installed adjacent to enclosure on all conduit runs. See Hazardous Location Fittings Section.