

Intraground® N1 Series Nonmetallic Tumbler Switches

Explosionproof

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

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. ◊
- 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® or Mylar®, 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 410 °F/210 °C.
- UL Temperature Index (continuous use temperature): 338 °F/170 °C electrical properties, 338 °F/170 °C 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® 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®*
- Nameplates: Mylar®*

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 *Fittings Section*.

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

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

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Controls



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

CONTROLS: HAZARDOUS LOCATION CONTROL STATIONS AND SWITCHES

Switch	Hub Size † (Inches)	Catalog Number †			
		20 Ampere – 120–277 Vac †		30 Ampere – 120–277 Vac *	
		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 †			
	20 Ampere – 120–277 Vac †		30 Ampere – 120–277 Vac *	
	Cover	Switch	Cover	Switch

1-Gang Covers and Switches

All covers furnished with four bolts and blank nameplate.



1-Pole	N1K-F12	EFS-FR1-Q	N1K-F12	EFS-FR13-Q
2-Pole	N1K-F12	EFS-FR2-Q	N1K-F12	EFS-FR23-Q
3-Way	N1K-F34W	EFS-FR3W-Q	N1K-F34W	EFS-FR3W3-Q
4-Way	N1K-F34W	EFS-FR4W-Q		

Cover Only

Switch Only

Hub Size † (Inches)	Catalog Number †	
	Dead-End	Feed-Thru

1-Gang Nonmetallic Mounting Bodies

For use with covers above.



1/2 or 3/4	N1D75Q	N1DC75Q
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◊ Sealing fittings must be field-installed adjacent to enclosure on all conduit runs.

† Furnished with a 3/4" to 1/2" NPT reducer.

‡ 20 Amp – 1 HP at 120 Vac and 2 HP at 240 Vac.


* 30 Amp – 2 HP at 120 Vac or 240 Vac.

Intraground® N1 Series Nonmetallic Tumbler Switch Nameplate and Dimensions

Explosionproof

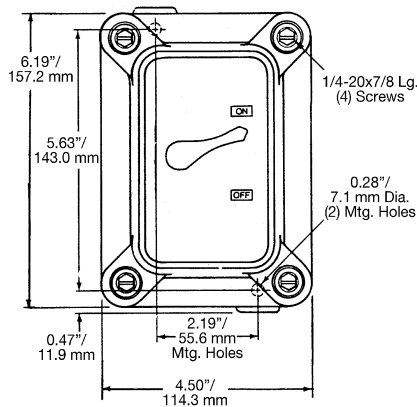
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Nameplate Mounting Bracket

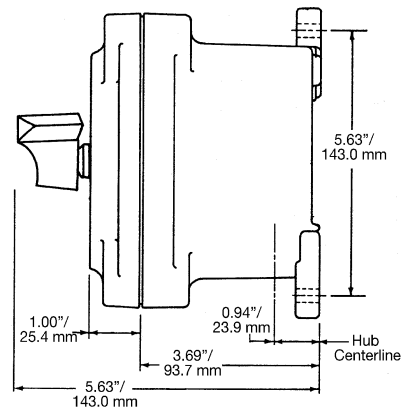
	Description	Catalog Number
	<p>Bracket for N1 Series</p> <p>To order bracket with control station, add suffix -NPBRKT to end of catalog number.</p> <p><i>Note: Mount bracket between cover screws and cover. Do not mount bracket between ground joint flame path between cover and backbox.</i></p>	<p>NPBRKT-N1N2</p>

Dimensions in Inches/Millimeters

Front Operated Tumblers Switches

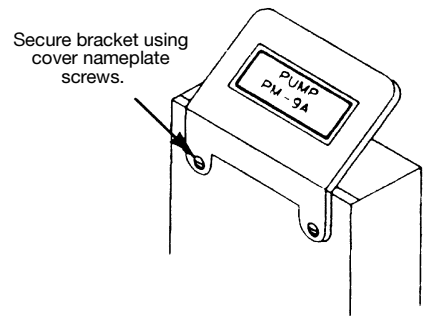
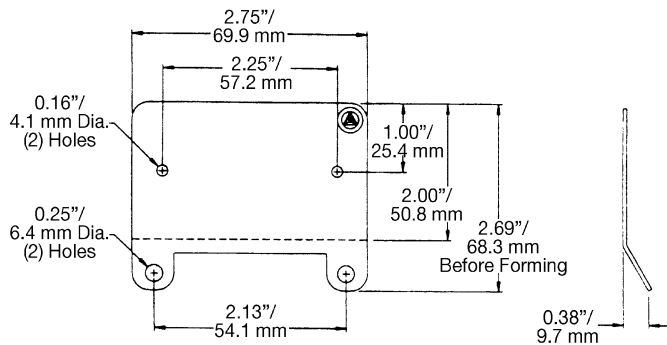


Front



Side

NPBRKT Nameplate Mounting Bracket



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