

Intraground® N1 Series Non-Metallic Tumbler Switches: Explosionproof UNILETS® for use with Threaded Metal Conduit.

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 and 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

- First UL listed non-metallic tumbler switches available for Class I, Div. 1 locations.
- Non-metallic 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. Non-metallic 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.



Dead-End



Feed-Thru

- 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. After 336 hours of immersion in water at 82°C and 720 hours of exposure to ultraviolet radiation, there was no appreciable change in tensile strength.
- Excellent conduit connection strength. UL pull-out and bending resistance tests resulted in no effect on conduit connections.
- Excellent resistance to attack by fungi and mold.
- Excellent Heat Deflection Temperature. At 264 psi, in accordance with ASTM D648 testing procedure, sample specimens rated at 410°F (the temperature required to deflect the material .01").

- UL Temperature Index (continuous use temperature): 338°F electrical properties, 338°F mechanical properties with impact.
 - Superior flammability resistance. After five UL gas burner tests, where flame was applied directly to the box, there was no dripping of burning parts and enclosure retained its integrity. Sample specimens rated V-0 at .03" and 5V at .075".
- †Sealing fittings not furnished. Order from Cat. Sec. I.

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Intraground® N1 Series Non-Metallic Tumbler Switches: Explosionproof UNILETS® for use with Threaded Metal Conduit.

Features

- Enclosures have external mounting lugs for ease of mounting.
- Smooth, rounded integral bushing in each hub protects conductor insulation.
- 20-ampere and 30-ampere units available for use with 120-277 Volt A.C.
- 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®.

Compliances:

- UL Standard 894.

Product Cross Reference:

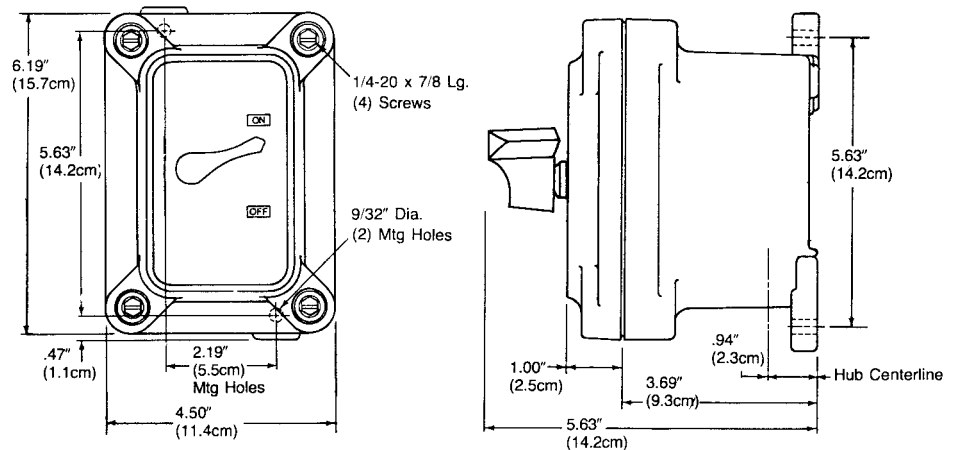
- For classified-location push button, pilot light and selector switch control stations, see Catalog Section M.



Aluminum grounding grid, imbedded into the non-metallic enclosure during molding, provides complete grounding

system. No field work. No extra grounding wires or parts required.



Dimensions of N1 Series Tumbler Switch






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

Intraground® N1 Series Non-Metallic Tumbler Switches, Bodies and Covers: Explosionproof

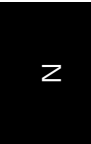
UNILETS® for Use with Threaded Metal Conduit.
Enclosures and Covers Have Neutral Color. Non-Factory Sealed.◇

U.S. Patent 4,260,863 Patented Canada 1980		Hub Size, Inches†	Switch	Dead-End	Catalog Number Feed-Thru
Single Gang Tumbler Switches 20 Ampere - 120-277 Volt A.C. *					
 Dead-End	 Feed-Thru	1/2 or 3/4	1-Pole	N1D75-F1	N1DC75-F1
		1/2 or 3/4	2-Pole	N1D75-F2	N1DC75-F2
		1/2 or 3/4	3-Way	N1D75-F3W	N1DC75-F3W
		1/2 or 3/4	4-Way	N1D75-F4W	N1DC75-F4W
30-Ampere-120-277 Volt A.C.**					
		1/2 or 3/4	1-Pole	N1D75-F13	N1DC75-F13
		1/2 or 3/4	2-Pole	N1D75-F23	N1DC75-F23
		1/2 or 3/4	3-Way	N1D75-F3W3	N1DC75-F3W3

Type	Hub Size, Inches†	Catalog Number
Single Gang Non-Metallic Mounting Bodies For Use with covers below		
	Dead-End	1/2 or 3/4
	Feed-Thru	1/2 or 3/4
		N1D75Q
		N1DC75Q

Switch Type	Cover	Switch
Single Gang Covers and Switches All covers furnished with four bolts and blank nameplate. 20-Ampere-120-277 Volt A.C.*		
 Cover Only	 Switch Only	1-Pole
		2-Pole
		3-Way
		4-Way
30-Ampere-120-277 Volt A.C.**		
		1-Pole
		2-Pole
		3-Way
		1-Pole
		2-Pole
		3-Way

◇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 Volt A.C. and 2 HP at 240 Volt A.C. **30 Amp— 2 HP at 120 Volt A.C. or 240 Volt A.C.



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

Intraground® N1 Series Non-Metallic Circuit Breakers: Explosionproof

Enclosures and Covers have Neutral Color. Non-Factory Sealed.◇

Applications

- Short circuit protection and safe disconnect means.
- Thermal time delay overload protection for branch circuits for lighting, appliance and motor circuits.
- Ideal for use in corrosive atmospheres.
- Designed for use in locations made hazardous by the presence of flammable gases or vapors, such as those encountered in refineries, chemical and petro-chemical plants and other processing plants.

Features

- 15-, 20-, and 30-ampere single pole circuit breakers for 120 VAC operation.
- Dead End or Feed Thru hubs— 1/2" or 3/4".
- Furnished with lead wires for ease of connection.
- Breaker mounted on cover.
- Handle may be locked in ON or OFF position.
- External mounting lugs for ease of installation.
- Smooth, rounded integral bushing in each hub protects conductor insulation.

- 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.

Standard Materials

- *Body and cover:* 30% glass-reinforced thermoplastic polyetherimide.
- *Handle:* Nylon 6/6
- *Cover bolts:* stainless steel.
- *Nameplates:* aluminum.

Standard Finishes

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

Compliances


- UL Standard 698 and 877.

Product Cross Reference

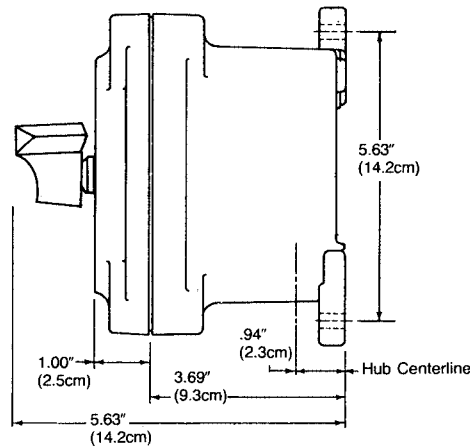
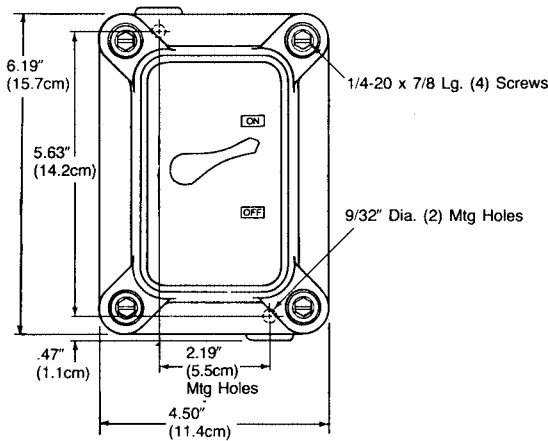
- For full descriptions of non-metallic enclosures circuit breakers listed below, see page N-15.

For classified-location push button, pilot light and selector switch control stations, see Cat. Sec. M.

Enclosures with Square D Type "QOU" Single Pole Breakers for 120/240 VAC Operation

	Amp	Hub Size Inches†	Catalog Number	
			Dead-End	Feed-thru
	15 Amp	1/2 or 3/4	N1D75-15B	N1DC75-15B
	20 Amp	1/2 or 3/4	N1D75-20B	N1DC75-20B
	30 Amp	1/2 or 3/4	N1D75-30B	N1DC75-30B

Dimensions of N1 Series Circuit Breakers



◇ Sealing fittings must be field installed adjacent to enclosure on all conduit runs. †Furnished with a 3/4" to 1/2" NPT reducer.