

# Intraground™ N1 Series Control Stations

## Nonmetallic

10 Amp, 600 Vac Max. for Heavy Duty Use.

NEC — N1 Series (Non-Factory Sealed): Ⓞ  
Class I, Division 1 and 2, Groups C, D  
NEMA 3R, 4X, 7CD, 12

### Applications

- Listed for use in Class I, Division 1 and 2, Group C and D atmospheres such as:
  - Diethyl ether
  - Methyl ethyl ketone
  - Acetone
  - Toluene
  - No. 3 fuel oil
  - Ammonium hydroxide (20%)
  - Benzene
  - Regular unleaded gas
  - Ethyl acetate
  - Hexane
  - 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.
- 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 local hazardous location.

### 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 control stations offer unsurpassed resistance to 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.
- Superior flammability resistance.



Push Button



Pilot Light



Selector Switch



Combination Push Button and Pilot Light



Combination Selector Switch and Pilot Light

### Related Products

- Sealing fitting must be installed at each conduit entrance of the N1 enclosure to be explosionproof. See *Hazardous Location Fittings Section*.

Ⓞ For Class I, Division 1 applications, sealing fittings must be field installed adjacent to enclosure on all conduit runs.

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

# Intraground™ N1 and N2 Series Control Stations

## Nonmetallic

10 Ampere, 600 Vac Max. for Heavy Duty Use.

**NEC — N1 Series (Non-Factory Sealed):** ☉  
Class I, Division 1 and 2, Groups C, D  
NEMA 3R, 4X, 7CD, 12

**NEC — N2 Series (Factory Sealed):**  
Class I, Division 2, Groups B, C, D  
Class II, Division 1 and 2, Groups E, F, G  
Class III  
NEMA 3R, 4X, 9EFG, 12

### Features

- Heavy duty push button, 10 Amp 600 Vac rated.
- Dozens of possible combinations of push buttons, pilot lights and selector switches.
- Smooth, rounded integral bushing in each conduit opening protects conduct or insulation.
- Accurately tapped, tapered conduit openings for tight, rigid joints and ground continuity.
- Push Buttons, Selector Switches, and Pilot Lights
  - Stainless steel push button shaft operates within stainless steel bushing, assuring long, maintenance-free operation.
  - Push button and selector switch contacts are silver cadmium oxide which are "sealed" in lower phenolic chamber isolated from corrosive elements. Assures positive contact and long, trouble-free operation.
  - Enclosed stainless steel helper spring prevents accidental operation of push button in severe vibration installations.
  - Corrosion resistant stainless steel Teflon® ① coated hex head cap screws hold covers to body.
  - Push buttons are supplied with lockout type guards as standard. Hole in guard will accept locks with up to 1/4" hasp. Permits locking of push button to prevent unauthorized operation.
  - Clearly marked terminals with brass screws assure quick, easy wiring.
  - Pilot light supplied with jewel/guard assembly and 120 Vac, 6 Watt type 6S6 lamp, 120 Vac/Vdc, 50/60 Hz, 6 Watt.

### Standard Materials

- Body and cover: 30% glass-reinforced thermoplastic polyetherimide
- SPBB push button: aluminum upper barrel and phenolic lower barrel with nylon plastic button. Glass reinforced polypropylene guard. Silicone weather boot. Aluminum nameplate
- SPLS pilot light: aluminum guard and body assembly; steel clamping ring; and tempered glass jewel
- SSBA selector switch: aluminum housing, nylon knobs and cams, and sealed phenolic contact block
- NBN rectangular button with weather boot: Nylon plastic button with neoprene weather boot. Aluminum nameplate
- NMRB mushroom button with weather boot: anodized aluminum buttons with neoprene weather boot
- Selector switch locking devices and push button securing rods: stainless steel
- Cover bolts: stainless steel
- Nameplates: copperfree (4/10 of 1% max.) aluminum
- Receptacles: copperfree (4/10 of 1% max.) aluminum

### Standard Finishes

- Cover bolts: Teflon® ①
- Nameplates: Mylar® ①
- Pilot light guard and clamping ring: epoxy

### Options

- Three position selector switches with modified operation. For description and switch diagram, refer to switch operators.
  - Momentary contact right position, spring return to center, maintained contact left position. Add suffix **–SRC**.
  - Momentary contact left position, spring return to center, maintained contact right position. Add suffix **–SLC**.
- Alternate contacts add suffix **–ALT**.
- Selector switch Lockout: locks 2- or 3-position handle in any position. Suffix **–LD**.
- Push button front operated mushroom head (momentary contact):
  - Red **–NMRBRE**
  - Green **–NMRBGR**
  - Black, add suffix **–NMRBBL**.
- Pilot light jewel/guard assembly. Order by suffixes if color desired is other than red, as follows:
  - Amber **–JGBA**
  - Blue **–JGBB**
  - Clear **–JGBC**
  - Green **–JGBG**
  - Opal **–JGBO**
- For colored LED jewel/guard assembly, order by suffixes:
  - Red **–LEDR**
  - Green **–LEDG**
  - Amber **–LEDA**
- Pilot light transformers for single pilot light per gang. Order by suffix:

| Primary Voltage | Lamp Voltage | Suffix |
|-----------------|--------------|--------|
| 220             | 120          | TR-2   |
| 277             | 120          | TR-3   |
| 440             | 120          | TR-4   |
| 550             | 120          | TR-5   |

- Securing rod for push button lockout guard. Add suffix **–SR**.
- **NPBRKT** nameplate mounting bracket to make circuit description/identification easy.
  - Pre-drilled holes in bottom of bracket allow direct mounting to control stations with existing cover bolts.
  - Pre-drilled holes in middle of bracket allow mounting of customer's circuit identification nameplate; epoxy glue may also be used for mounting (phenolic nameplate not included).
  - Bracket eliminates costly field installation of drilling and tapping to accommodate circuit identification nameplate.
  - Brackets fit side-by-side on 2-, 3- and 4-gang boxes and 3-devices.

### NEC Certifications and Compliances

- UL Standards: UL 508, UL 698, UL 1203
- UL Listed: E10449, E81751

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# Intraground™ N1 and N2 Series Control Stations

## Nonmetallic

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

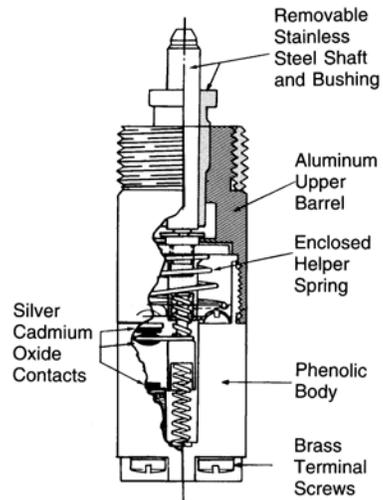
**NEC — N2 Series (Factory Sealed):**  
Class I, Division 2, Groups B, C, D  
Class II, Division 1 and 2, Groups E, F, G  
Class III  
NEMA 3R, 4X, 9EFG, 12

### Illustrated Features



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

### SPBB Design Features



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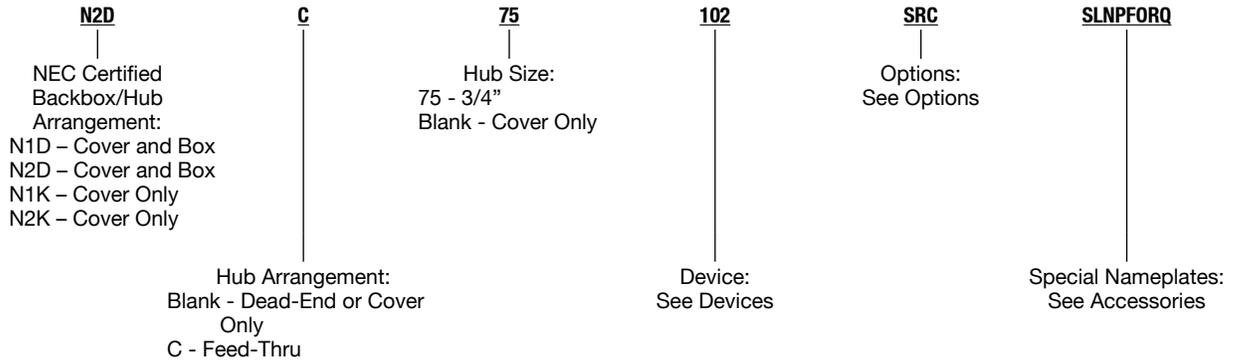
## Nonmetallic

10 Ampere, 600 Vac Max. for Heavy Duty Use.

**NEC — N1 Series (Non-Factory Sealed):** ☉  
Class I, Division 1 and 2, Groups C, D  
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**NEC — N2 Series (Factory Sealed):**  
Class I, Division 2, Groups B, C, D  
Class II, Division 1 and 2, Groups E, F, G  
Class III  
NEMA 3R, 4X, 9EFG, 12

### Catalog Numbering Guide



### Full Catalog # N2DC75-102-SRC-SLNPFORQ

Feed-Thru N2D Box with 3/4" Hubs:  
With A 2-Circuit, 3 Position  
Spring Return from the Right  
Selector Switch and "Forward-Off-Reverse" Nameplate

### Options

| Options Description   | Suffix |
|---|--------|
| Momentary Push Button Securing Rod                          | SR     |
| Selector Switch Lockout                                     | LD     |
| Spring Return From Right Selector Switch (3 Positions Only) | SRC    |
| Spring Return From Left Selector Switch (3 Positions Only)  | SLC    |
| Alternate Contacts Selector Switch                          | ALT    |
| Change One Red Lens to Green Lens                           | JGBG   |
| Change One Red Lens to Opal Lens                            | JGBO   |
| Change One Red Lens to Amber Lens                           | JGBA   |
| Change One Red Lens to Blue Lens                            | JGBB   |
| Change One Red Lens to Clear Lens                           | JGBC   |
| Add 220/120 Vac Transformer (J1 Device Only)                | TR2    |
| Add 277/120 Vac Transformer (J1 Device Only)                | TR3    |
| Add 440/120 Vac Transformer (J1 Device Only)                | TR4    |
| Add 550/120 Vac Transformer (J1 Device Only)                | TR5    |
| Change One Red Pilot to Red LED                             | LEDR   |
| Change One Red Lens to Green LED                            | LEDG   |
| Change One Red Lens to Amber LED                            | LEDA   |
| Add Red Mushroom Head to Momentary Push Button              | NMRBRE |
| Add Black Mushroom Head to Momentary Push Button            | NMRBBL |
| Add Green Mushroom Head to Momentary Push Button            | NMRBGR |
| Locking Guard for Maintained Push Button                    | SMPBLG |

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# Intraground™ N1 and N2 Series Control Stations Devices

## Nonmetallic

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NEC – N2 Series (Factory Sealed):  
 Class I, Division 2, Groups B, C, D  
 Class II, Division 1 and 2, Groups E, F, G  
 Class III  
 NEMA 3R, 4X, 9EFG, 12

### Devices

| Device Description   | Suffix |
|--|--------|
| One Pilot Light (Red Standard)   | J1     |
| Two Pilot Lights   | J2     |
| One Pilot Light and One Momentary Push Button                                  | J1U1   |
| One Pilot Light and Two Momentary Push Buttons                                 | J1U2   |
| One Pilot Light and One Maintained Push Button                                 | J1UM1  |
| One Pilot Light and One Dust-Cap Push Button                                   | J1DU1  |
| One Pilot Light and One 12 Selector Switch (2 Position, 2 Circuit)             | J112   |
| One Pilot Light and One 35 Selector Switch (2 Position, 4 Circuit )            | J135   |
| One Pilot Light and One 102 Selector Switch (3 Position, 2 Circuit)            | J1102  |
| One Pilot Light and One 345 Selector Switch (3 Position, 4 Circuit)            | J1345  |
| One Monetary Push Button   | U1     |
| Two Monetary Push Buttons  | U2     |
| Two Side-By-Side Momentary Push Buttons  | U2DBL  |
| Three Monetary Push Buttons  | U3     |
| One Momentary Push Button and One Maintained Push Button                       | U1UM1  |
| One Momentary Push Button and One Dust-Cap Push Button                         | U1DU1  |
| One Momentary Push Button and One 12 Selector Switch (2 Position, 2 Circuit)   | U112   |
| One Momentary Push Button and One 35 Selector Switch (2 Position, 4 Circuit )  | U135   |
| One Momentary Push Button and One 102 Selector Switch (3 Position, 2 Circuit)  | U1102  |
| One Momentary Push Button and One 345 Selector Switch (3 Position, 4 Circuit)  | U1345  |
| One Maintained Push Button (Mushroom Head - Red)                               | UM1    |
| Two Maintained Push Button   | UM2    |
| One Maintained and One Dust-Cap Push Button                                    | UM1DU1 |
| One Maintained Push Button and One 12 Selector Switch (2 Position, 2 Circuit)  | UM112  |
| One Maintained Push Button and One 35 Selector Switch (2 Position, 4 Circuit ) | UM135  |
| One Maintained Push Button and One 102 Selector Switch (3 Position, 2 Circuit) | UM1102 |
| One Maintained Push Button and One 345 Selector Switch (3 Position, 4 Circuit) | UM1345 |
| One Dust Cap Push Button   | DU1    |
| Two Dust Cap Push Buttons  | DU2    |
| One Dust Cap and One 12 Selector Switch (2 Position, 2 Circuit)                | DU112  |
| One Dust Cap and One 35 Selector Switch (2 Position, 4 Circuit )               | DU135  |
| One Dust Cap and One 102 Selector Switch (3 Position, 2 Circuit)               | DU1102 |
| One Dust Cap and One 345 Selector Switch (3 Position, 4 Circuit)               | DU1345 |
| One 12 Selector Switch (2 Position, 2 Circuit)                                 | 12     |
| One 35 Selector Switch (2 Position, 4 Circuit )                                | 35     |
| One 102 Selector Switch (3 Position, 2 Circuit)                                | 102    |
| One 345 Selector Switch (3 Position, 4 Circuit)                                | 345    |

☉ For Class I, Division 1 applications, sealing fittings must be field installed adjacent to enclosure on all conduit runs.

# Intraground™ N1 and N2 Series Control Stations

## Push Button and Push Button/Pilot Light. Nonmetallic

10 Ampere, 600 Vac Max. for Heavy Duty Use. N1 Series – Neutral Color; N2 Series – Blue Color.

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Class II, Division 1 and 2, Groups E, F, G  
Class III  
NEMA 3R, 4X, 9EFG, 12

|  |   | Hub Size<br>(Inches) ① | Description                            | Diagram   | Nameplate<br>Marking | Catalog Number     |                    |
|--|---|------------------------|--|---|----------------------|--------------------|--------------------|
|  |   |                        |  |   |                      | N1 Series ☉        | N2 Series          |
| <b>1-Gang Push Buttons – Momentary Contact</b>   |   |                        |  |   |                      |                    |                    |
|  |   | <b>Dead-End</b>        |  |   |                      |                    |                    |
|             |    | 1/2 or 3/4             | 1 Circuit Universal                    |    | Start/Stop           | <b>N1D75-U1</b>    | <b>N2D75-U1</b>    |
|  |   | 1/2 or 3/4             | 2 Circuits Universal                   |    | Start/Stop           | <b>N1D75-U2</b>    | <b>N2D75-U2</b>    |
|  |   | <b>Feed-Thru</b>       |  |   |                      |                    |                    |
|             |    | 1/2 or 3/4             | 1 Circuit Universal                    |    | Start/Stop           | <b>N1DC75-U1</b>   | <b>N2DC75-U1</b>   |
|  |   | 1/2 or 3/4             | 2 Circuits Universal                   |    | Start/Stop           | <b>N1DC75-U2</b>   | <b>N2DC75-U2</b>   |
| <b>1-Gang Push Buttons – Maintained Contact Red Mushroom Head – Emergency Stop Nameplate</b> |   |                        |  |   |                      |                    |                    |
|  |   | <b>Dead-End</b>        |  |   |                      |                    |                    |
|             |   | 1/2 or 3/4             | 1 Circuit Universal                    |    | Emergency Stop       | <b>N1D75-UM1</b>   | <b>N2D75-UM1</b>   |
|  |   | 1/2 or 3/4             | 1 Circuit Universal                    |    | Emergency Stop       | <b>N1DC75-UM1</b>  | <b>N2DC75-UM1</b>  |
| <b>3-Device Push Buttons – Momentary Contact</b>   |   |                        |  |   |                      |                    |                    |
|  |   | <b>Dead-End</b>        |  |   |                      |                    |                    |
|            |   | 1/2 or 3/4             | 3 Circuits Universal                   |  | Start/Stop           | <b>N1D75-U3</b>    | <b>N2D75-U3</b>    |
|  |   | 1/2 or 3/4             | 3 Circuit Universal                    |  | Start/Stop           | <b>N1DC75-U3</b>   | <b>N2DC75-U3</b>   |
| <b>1-Gang Push Button/Pilot Light – Momentary Contact</b>                                    |   |                        |  |   |                      |                    |                    |
|  |   | <b>Dead-End</b>        |  |   |                      |                    |                    |
|           |  | 1/2 or 3/4             | 1 Circuit Universal and 1 Pilot Light  |  | Specify              | <b>N1D75-J1U1</b>  | <b>N2D75-J1U1</b>  |
|  |   | 1/2 or 3/4             | 2 Circuits Universal and 1 Pilot Light |  | Specify              | <b>N1D75-J1U2</b>  | <b>N2D75-J1U2</b>  |
|  |   | <b>Feed-Thru</b>       |  |   |                      |                    |                    |
|           |  | 1/2 or 3/4             | 1 Circuit Universal and 1 Pilot Light  |  | Specify              | <b>N1DC75-J1U1</b> | <b>N2DC75-J1U1</b> |
|  |   | 1/2 or 3/4             | 2 Circuits Universal and 1 Pilot Light |  | Specify              | <b>N1DC75-J1U2</b> | <b>N2DC75-J1U2</b> |
| <b>1-Gang Pilot Lights</b>   |   |                        |  |   |                      |                    |                    |
|  |   | <b>Dead-End</b>        |  |   |                      |                    |                    |
|           |  | 1/2 or 3/4             | 1 Pilot Light                          |  | Specify              | <b>N1D75-J1</b>    | <b>N2D75-J1</b>    |
|  |   | 1/2 or 3/4             | 2 Pilot Lights                         |  | Specify              | <b>N1D75-J2</b>    | <b>N2D75-J2</b>    |
|  |   | <b>Feed-Thru</b>       |  |   |                      |                    |                    |
|           |  | 1/2 or 3/4             | 1 Pilot Light                          |  | Specify              | <b>N1DC75-J1</b>   | <b>N2DC75-J1</b>   |
|  |   | 1/2 or 3/4             | 2 Pilot Lights                         |  | Specify              | <b>N1DC75-J2</b>   | <b>N2DC75-J2</b>   |

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

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