



# Hazardous Location Push Button Specifications Technical Data

Bulletin Numbers 800G, 800H, and 800R

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## Summary of Changes

This publication contains new and updated information as indicated in the following table.

| Topic  | Page    |
|--|---------|
| Added Series B Stackable Sealed Switch Contact ratings   | 5       |
| Removed discontinued product listings.   | 23, 24  |
| Updated Legacy LED Lamp table.   | 28      |
| Noted that Bulletin 800G Hazardous Location Push Button cULus models products are discontinued as of November 2021.<br>Removed Bulletin 800G Hazardous Location Push Button cULus products from catalog number configuration tables. | 45 - 60 |

Our Bulletin 800H Type 7 and 9 Hazardous Location Push Buttons offer unmatched selection, excellent corrosion resistance, and choice of conduit seal-off solutions. You can order them as complete factory-assembled stations or as separate components with standard or long barrels.

### Application

When properly mounted in a Type 7 and 9 enclosure, Bulletin 800H Type 7 and 9 operators are designed to meet the requirements of the National Electrical Code for Class I, Divisions 1 & 2, Groups B, C, and D Hazardous Gas; Class II, Divisions 1 & 2, Groups E, F, and G Hazardous Dust; and, Class III Hazardous Fiber Locations. In addition, the single-gang shallow base, catalog number 800H-IHZX7, meets Class I, Group B requirements. This Type 7 and 9 equipment is listed by Underwriters Laboratories, Inc.

Per National Electrical Code:

| Zone | Description  |
|------|--|
| 1    | In Class I, Zone 1 locations, all wiring methods that are permitted for Class I, Division 1 locations and Class I, Zone 0 or Zone 1 locations, including requirements for sealing, shall be permitted.                           |
| 2    | In Class I, Zone 2 locations, all wiring methods that are permitted for Class I, Division 2, Class I, Division 1 or Division 2, and Class I, Zone 0 or Zone 1 locations, including requirements for sealing, shall be permitted. |

### Operator Construction

The Allen-Bradley® line of hazardous location devices features copper-free (less than 0.4 of 1% copper content) die-cast aluminum bushings and mounting rings, type #316 stainless steel operating shafts and an O-ring seal for added corrosion resistance. These components mount into a threaded hole (3/4 in.-14 NPSM) in a suitable enclosure.

Bulletin 800H Type 7 and 9 components are available in two basic formats: standard barrel (Bulletin 800H) and long barrel (Bulletin 800HL). Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness greater than 25.4 mm (1 in.) and no thicker than 63.5 mm (2.5 in.). Both style operators offer a unique locking bracket, which provides an anti-turn feature to help prevent the operator from coming loose. The mounting rings in front of the panel are knurled to provide a second way to tighten each unit into the panel.

Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)).

### Outdoor Use

Bulletin 800H Type 7 and 9 stations and enclosures are not configured for outdoor use as standard. A Type 3 rating is available, while maintaining Type 7 and 9 integrity of the enclosure, by the addition of a Type 3 sealing flange and an approved drain. A Type 4 rating can be achieved by using sealing nuts to seal the push button operators along with the sealing flange. See Accessories [Table 16 on page 27](#).

### Elimination of Conduit Seal Off Requirement

The use of hermetically sealed contact blocks configured with 800H Type 7 and 9 operators can eliminate the need for conduit seal fittings in most applications (subject to applicable codes and laws). The stackable sealed switch and logic reed contact blocks (See [Contact Blocks on page 23](#)) are comprised of hermetically sealed switches.

## Specifications



**ATTENTION:** Performance data that is given in this publication is provided only as a guide for you to determine suitability and does not constitute a performance warranty of any kind. Such data may represent the results of accelerated testing at elevated stress levels, and you are responsible for correlating the data to actual application requirements. ALL WARRANTIES AS TO ACTUAL PERFORMANCE, WHETHER EXPRESS OR IMPLIED, ARE EXPRESSLY DISCLAIMED.

### Table 1 - Electrical Ratings

| Attribute                    | Value   |
|------------------------------|---|
| Contact Ratings              | See the contact ratings on <a href="#">page 5</a> .                 |
| Dielectric Strength          | 2200V for 1 minute, 1300V for 1 minute (Logic Reed)                 |
| Electrical Design Lifecycles | 1,000,000 at max rated load, 200,000 at max rated load (Logic Reed) |

### Table 2 - Mechanical Ratings

| Attribute  | Value   |               |
|--|---|---------------|
| Vibration  | 10...2000 Hz 1.52 mm displacement (peak-to-peak) max/10 G max (except Logic Reed)   |               |
| Shock  | 1/2 cycle sine-wave for 11 ms $\geq$ 25 G (contact fragility) and no damage at 100 G  |               |
| Degree of Protection                                   | Type 7 and 9 Explosion Proof (Type 3 and Type 4 ratings available with accessories)   |               |
| Mechanical Design Lifecycles                           | Push Buttons  | 250,000 min   |
|  | Potentiometers  | 100,000 min   |
|  | All other devices   | 200,000 min   |
| Contact Operation                                      | Shallow and mini contact blocks: slow double make and break<br>Logic Reed and sealed switch contact blocks: single break magnetic |               |
| Wire Gauge/Terminal Screw Torque                       | #18...14 AWG/6...8 lb•in  |               |
| Typical Operating Forces                               |   |               |
| Operators without contact blocks:                      | Flush, extended, standard mushroom, jumbo mushroom  | 2.9 lb max    |
|  | Jumbo and extended aluminum mushroom head   | 3.95 lb max   |
|  | Maintained selector switch  | 4.0 in•lb max |
| Spring-return Selector Switches                        | 5 in•lb to stop, 0.2 in•lb to return  |               |
| Illuminated Push Buttons and Push-to-test Pilot Lights | 5.6 lb max  |               |
| 2-position Push-Pull                                   | 9 lb max push or pull   |               |
| 3-position Push-Pull                                   | 12 lb max push to in position or pull to center position<br>(15 lb max pull to out position)                                      |               |
| Contact Blocks   | 800T-XA   | 1 lb          |
|  | Logic Reed  | 1 lb max      |
|  | Stackable Sealed Switch   | 1 lb max      |

### Table 3 - Environmental

| Attribute             | Value                 |                              |
|-----------------------|-----------------------|------------------------------|
| Temperature Range (1) | Operating             | -20...+55 °C (-4...+13 °F)   |
|                       | Storage               | -40...+85 °C (-40...+185 °F) |
| Humidity              | 50% at 40 °C (104 °F) |                              |

(1) Operating temperatures below freezing are based on the absence of freezing moisture and liquids.

## Standard Contact Ratings

Maximum thermal continuous current  $I_{th}$  10 A AC/2.5 A DC. [Table 4](#) shows the ratings for Bulletin 800H Type 7 & 9 units with catalog number 800T-XA contacts.

**Table 4 - Standard Contact Ratings**

| Max Operational Volts $U_e$ | Utilization Category |      | Rated Operational Currents |        |       |
|-----------------------------|----------------------|------|----------------------------|--------|-------|
|                             | IEC                  | NEMA | Volts $U_e$                | Make   | Break |
| AC 600                      | AC-15                | A600 | 120...600                  | 7200VA | 720VA |
|                             |                      |      | 72...120                   | 60 A   | 720VA |
|                             |                      |      | 24...28 <sup>(1)</sup>     | 60 A   | 10 A  |
| DC 600                      | DC-13                | Q600 | 28...600                   | 69VA   |       |
|                             |                      |      | 24...28 <sup>(1)</sup>     | 2.5 A  |       |

(1) For applications below 24V and 24 mA, PentUFF™, Logic Reed, or stackable sealed switch contacts are recommended.

## Stackable Sealed Switch Contact Ratings

### Series A

- Minimum: 5V, 10 mA (digital); 24V, 1 mA (analog)
- Maximum continuous current  $I_{th}$  2.5 A.

Bulletin 800T, series A units with stackable sealed switch contact blocks have ratings, as shown in [Table 5](#).

**Table 5 - Stackable Sealed Switch Contact Ratings**

| Max Operational Volts $U_e$ | Utilization Category |      | Rated Operational Currents |        |       |
|-----------------------------|----------------------|------|----------------------------|--------|-------|
|                             | IEC                  | NEMA | Volts $U_e$                | Make   | Break |
| AC 300                      | AC-15                | C300 | 120...300                  | 1800VA | 180VA |
|                             |                      |      | 0...120                    | 15 A   | 1.5 A |
| DC 150                      | DC-13                | Q150 | 24...150                   | 69VA   |       |
|                             |                      |      | 0...24                     | 2.5 A  |       |

### Series B

- Minimum: 5V, 10 mA (digital); 24V, 1 mA (analog)
- Maximum continuous current  $I_{th}$  5 A.
- Electrical design life cycles: 1,000,000 minimum
- Vibration: 5 g, 0.5 mm peak-to-peak displacement, sine sweep 10...2000 Hz / IEC 60068-2-6
- Shock: 20 g / IEC 60068-2-27

Bulletin 800T Series B units with stackable sealed switch contact blocks have ratings, as shown in [Table 6](#).

**Table 6 - Stackable Sealed Switch Contact Ratings**

| Max Operational Volts $U_e$ | Utilization Category |      | Rated Operational Currents |       |      |       | Volt-Ampere Rating |       |
|-----------------------------|----------------------|------|----------------------------|-------|------|-------|--------------------|-------|
|                             |                      |      | 120V                       |       | 240V |       |                    |       |
|                             | IEC                  | NEMA | Make                       | Break | Make | Break | Make               | Break |
| AC 300                      | AC-15                | C300 | 30 A                       | 3 A   | 15 A | 1.5 A | 3600VA             | 360VA |
| DC 150                      | DC-13                | Q150 | 24...150V                  |       |      |       | 69VA               |       |
|                             |                      |      | 0...24V                    |       |      |       | 2.5 A              |       |

## Logic Reed Contact Ratings

Maximum: 150V AC, 0.15 A, 8VA and 30V DC, 0.06 A, 1.8VA.

Use only with resistive loads.

## PenTUFF (Low Voltage) Contact Ratings

Minimum DC: 5V, 1 mA

Maximum thermal continuous current  $I_{th}$  2.5 A AC/1.0 A DC.

[Table 7](#) shows the ratings for Bulletin 800H units with catalog number 800T-XAV contacts.

**Table 7 - PenTUFF™ (Low Voltage) Contact Ratings**

| Max Operational Volts $U_e$ | Utilization Category |      | Rated Operational Currents |        |       |
|-----------------------------|----------------------|------|----------------------------|--------|-------|
|                             | IEC                  | NEMA | Volts $U_e$                | Make   | Break |
| AC 300                      | AC-15                | C300 | 120...300                  | 1800VA | 180VA |
|                             |                      |      | 0...120                    | 15 A   | 1.5 A |
| DC 150                      | DC-13                | R150 | 24...150                   | 28VA   |       |
|                             |                      |      | 0...24                     | 1.0 A  |       |

## Standards Compliance

- UL508
- UL698
- UL1203
- UL1604
- CSA C22.2 No. 14
- CSA C22.2 No. 25
- CSA C22.2 No. 30

## Certifications

Enclosures:












- UL Listed (File No. E71673 Guide No. NNNY)
- CSA (File No. LR11924)

Devices:

- UL Listed (File No. E10314 Guide No. NOIV)
- CSA (File No. LR11924)

# Complete Assembled Stations

**IMPORTANT** Supplied with 19.05 mm (3/4 in.) dead end conduit entry (Cat. No. 800H-1HZX7)

|   | Operator                           | Contact Symbol  |                                 | Contact Action | Legend Marking   | Lever Type Actuator | Component Type Buttons |
|---|------------------------------------|---|---------------------------------|----------------|--|---------------------|------------------------|
|   |                                    |   |                                 |                |  | Cat. No. (1) (2)    | Cat. No. (2) (3)       |
| <br>Cat. No. 800H-1HA7       | One Push Button                    |    | 1 N.O.<br>1 N.C.                | Momentary      | STOP   | 800H-1HA7           | 800H-1HA7P             |
|   |                                    |   |                                 |                | START  | 800H-1HB7           | 800H-1HB7P             |
|   |                                    |   |                                 |                | JOG  | 800H-1HJ7           | 800H-1HJ7P             |
|   |                                    |   |                                 |                | No Legends   | 800H-1HX7           | 800H-1HX7P             |
| <br>Cat. No. 800H-2HA7P      | Two Push Buttons                   |    | 1 N.O.<br>1 N.C.<br>Each Button | Momentary      | START<br>STOP  | 800H-2HA7           | 800H-2HA7P             |
|   |                                    |   |                                 |                | FOR<br>REV   | 800H-2HB7           | 800H-2HB7P             |
|   |                                    |   |                                 |                | RAISE<br>LOWER   | 800H-2HD7           | 800H-2HD7P             |
|   |                                    |   |                                 |                | OPEN<br>CLOSE  | 800H-2HF7           | 800H-2HF7P             |
|   |                                    |   |                                 |                | No Legends   | 800H-2HX7           | 800H-2HX7P             |
| <br>Cat. No. 800H-2HAM7     | 2-position Selector Switch         |   | 1 N.O.<br>1 N.C.                | Maintained     | START<br>STOP  | 800H-2HAM7          | —                      |
|   |                                    |   |                                 |                | ON<br>OFF  | 800H-2HCM7          | 800H-R2HC7             |
|   |                                    |   |                                 |                | OPEN<br>CLOSE  | 800H-2HGM7          | 800H-R2HG7             |
|   |                                    |   |                                 |                | RUN<br>STOP  | 800H-2HJM7          | —                      |
|   |                                    |   |                                 |                | HAND<br>AUTO   | 800H-2HLM7          | 800H-R2HA7             |
|   |                                    |   |                                 |                | No Legends   | 800H-2HXM7          | 800H-R2HX7             |
| <br>Cat. No. 800H-R3HA7    | 3-position Selector Switch         |  | 1 N.O.<br>1 N.C.                | —              | HAND OFF AUTO  | —                   | 800H-R3HA7             |
|   |                                    |   |                                 |                | No Legends   | —                   | 800H-R3HX7             |
| <br>Cat. No. 800H-2HAD10R7 | One Pilot Light, Dual Push Buttons |  | 120V AC/DC<br>Full Volt./Red    | —              | START<br>STOP  | —                   | 800H-2HAD10R7          |
|   |                                    |  | 1 N.O.<br>1 N.C.                |                | Marking other than listed - consult your local Allen-Bradley distributor | —                   | 800H-2HXD10R7          |

(1) Operators have integral padlocking attachment.  
 (2) Supplied with standard shallow contact blocks.  
 (3) STOP is extended red, START is flush green, all others are flush black.

# Momentary Contact Push Buttons Units

## Non-illuminated Momentary Contact Push Button Units



Flush Head Unit  
Cat. No. 800H-AP1A



Extended Head Unit  
Cat. No. 800H-BP6B



Mushroom Head Unit  
Cat. No. 800H-DP6A

800    **H**    -    **AP**    **1**  
          a            b            c            d

| a                          |                 |
|----------------------------|-----------------|
| Barrel Type <sup>(1)</sup> |                 |
| Code                       | Description     |
| H                          | Standard barrel |
| HL                         | Long barrel     |

| b                  |                                |
|--------------------|--------------------------------|
| Operator Type      |                                |
| Code               | Description                    |
| AP                 | Flush head                     |
| BP                 | Extended head                  |
| DP                 | Mushroom head                  |
| DPJ                | Jumbo mushroom head – plastic  |
| DPL <sup>(2)</sup> | Jumbo mushroom head – metal    |
| DPX                | Mushroom head (less color cap) |

| c         |  |
|-----------|--|
| Color Cap |  |
| Code      | Description  |
| Blank     | Used only when operator type Code DPX (Table b) is ordered |
| 1         | Green  |
| 2         | Black  |
| 3         | Orange   |
| 4         | Gray   |
| 6         | Red  |
| 7         | Blue   |
| 9         | Yellow   |

(1) Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness of 25.4...63.5 mm (1...2.5 in.).

(2) Jumbo mushroom head (metal) is only available in colors of green, black, red, and yellow.

| d                   |                   |                  |                     |                           |
|---------------------|-------------------|------------------|---------------------|---------------------------|
| Contact Blocks      |                   |                  |                     |                           |
| Configuration       | Standard Contacts | PenTUFF Contacts | Logic Reed Contacts | Stackable Sealed Contacts |
|                     | Code              | Code             | Code                | Code                      |
| No contacts         | blank             | –                | –                   | –                         |
| 1 N.O.              | D1                | D1V              | D1R                 | D1Y                       |
| 1 N.C.              | D2                | D2V              | D2R                 | D2Y                       |
| 1 N.O.E.M.          | D3                | D3V              | –                   | –                         |
| 1 N.C.L.B.          | D4                | D4V              | –                   | –                         |
| 1 N.O. (mini)       | D5                | –                | –                   | –                         |
| 1 N.C. (mini)       | D6                | –                | –                   | –                         |
| 1 N.C.L.B. – 1 N.O. | A1                | –                | –                   | –                         |
| 2 N.O.              | A2                | –                | A2R                 | –                         |
| 2 N.C.              | A4                | –                | A4R                 | –                         |
| 1 N.C.L.B. – 1 N.C. | A7                | –                | –                   | –                         |
| 1 N.O. – 1 N.C.     | A                 | AV               | AR                  | AY                        |
| 2 N.O. – 2 N.C.     | B                 | BV               | BR                  | BY                        |
| 3 N.O. – 3 N.C.     | H                 | HV               | HR                  | HY                        |
| 4 N.O. – 4 N.C.     | C                 | CV               | CR                  | CY                        |

## Dual Momentary Contact Push Button Units



**800**    **H**    **-**    **DP**    **H**    **16**    **AAXX**    **64**  
           a            b            c            d            e            f

| a                          |                 |
|----------------------------|-----------------|
| Barrel Type <sup>(1)</sup> |                 |
| Code                       | Description     |
| H                          | Standard barrel |
| HL                         | Long barrel     |

| b             |                  |
|---------------|------------------|
| Operator Type |                  |
| Code          | Description      |
| DP            | Dual push button |

| c        |             |
|----------|-------------|
| Mounting |             |
| Code     | Description |
| H        | Horizontal  |
| B        | Vertical    |

| d            |                                     |
|--------------|-------------------------------------|
| Button Color |                                     |
| Code         | Description                         |
| 16           | Left green flush/right red extended |
| 22           | Left black flush/right black flush  |

(1) Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness of 25.4...63.5 mm (1...2.5 in.).

| e              |   |   |
|----------------|---|---|
| Contact Blocks |   |   |
| Code           | Contact Arrangement                               |   |
|                | Left button (horizontal)<br>Top button (vertical) | Right button (horizontal)<br>Bottom button (vertical) |
| AAXX           | 1 N.O. - 1 N.C.                                   | 1 N.O. - 1 N.C.                                       |
| AAAA           | 2 N.O. - 2 N.C.                                   | 2 N.O. - 2 N.C.                                       |

| f       |   |   |
|---------|---|---|
| Marking |   |   |
| Code    | Contact Arrangement                               |   |
|         | Left button (horizontal)<br>Top button (vertical) | Right button (horizontal)<br>Bottom button (vertical) |
| Blank   | No mark specified                                 | No mark specified                                     |
| 64      | START   | STOP  |
| 50      | ON  | OFF   |
| 51      | FORWARD   | REVERSE   |
| 57      | OPEN  | CLOSE   |
| 66      | UP  | DOWN  |



## Illuminated Momentary Contact Push Button Units



800    H    -    PPB    H    16    M    \_\_\_\_\_  
           a                    b                    c                    d                    e                    f

| a                          |                 |
|----------------------------|-----------------|
| Barrel Type <sup>(1)</sup> |                 |
| Code                       | Description     |
| H                          | Standard barrel |
| HL                         | Long barrel     |

| b                 |                             |
|-------------------|-----------------------------|
| Power Module Type |                             |
| Code              | Description                 |
| PPB               | Transformer (or dual-input) |
| QPB               | Full voltage/Universal      |

| c                    |   |
|----------------------|---|
| Illumination Options |   |
| Code                 | Description                             |
| Blank                | Incandescent                            |
| H                    | LED (light-emitting diode)              |
| Dual-input           |   |
| D                    | Diode type, incandescent <sup>(2)</sup> |
| T                    | Transformer – relay type, incandescent  |
| TH                   | Transformer –relay type, LED            |

| d                           |                          |
|-----------------------------|--------------------------|
| Voltage                     |                          |
| Code                        | Description              |
| Transformer                 |                          |
| 16                          | 120V AC, 50/60 Hz        |
| 26                          | 240V AC, 50/60 Hz        |
| 46                          | 480V AC, 50/60 Hz        |
| 56                          | 600V AC, 50/60 Hz        |
| Full Voltage – Incandescent |                          |
| 24                          | 24V AC/DC                |
| 10                          | 120V AC/DC               |
| 20                          | 240V AC/DC               |
| Universal – LED             |                          |
| 2                           | 12...130V AC/DC          |
| Dual-input                  |                          |
| 16                          | 120V AC                  |
| 24                          | 24V AC/DC <sup>(4)</sup> |

| e          |   |
|------------|---|
| Lens Color |   |
| Code       | Description   |
| Blank      | No lens, with standard contacts 1 N.O. - 1 N.C.                                   |
| X          | No lens is provided with any contacts ordered other than standard 1 N.O. - 1 N.C. |
| M          | Multi-color <sup>(3)</sup>  |

- (1) Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness of 25.4...63.5 mm (1...2.5 in.).
- (2) Diode type dual-input provides circuit isolation via opposing diodes. Not recommended for use with solid-state outputs and neon indicators.
- (3) Multi-color insert packet includes amber, blue, green, red, and white.
- (4) Dual-input diode only.

f

| Contact Blocks      |                   |                  |                     |                           |
|---------------------|-------------------|------------------|---------------------|---------------------------|
| Configuration       | Standard Contacts | PenTUFF Contacts | Logic Reed Contacts | Stackable Sealed Contacts |
|                     | Code              | Code             | Code                | Code                      |
| No contacts         | X                 | –                | –                   | –                         |
| 1 N.O.              | D1                | D1V              | D1R                 | D1Y                       |
| 1 N.C.              | D2                | D2V              | D2R                 | D2Y                       |
| 1 N.O.E.M.          | D3                | D3V              | –                   | –                         |
| 1 N.C.L.B.          | D4                | D4V              | –                   | –                         |
| 1 N.C.L.B. – 1 N.O. | A1                | –                | –                   | –                         |
| 2 N.O.              | A2                | –                | A2R                 | –                         |
| 2 N.C.              | A4                | –                | A4R                 | –                         |
| 1 N.C.L.B. – 1 N.C. | A7                | –                | –                   | –                         |
| 1 N.O. – 1 N.C.     | blank             | AV               | AR                  | AY                        |
| 2 N.O. – 2 N.C.     | G1                | G1V              | G1R                 | G1Y                       |

# Push Pull Units

## 2-position, Non-illuminated



2-position Push-Pull  
Cat. No. 800H-FPX6A5



800    H    -    FPX          1    A1  
          a                    b                    c                    d                    e

| a                          |                 |
|----------------------------|-----------------|
| Barrel Type <sup>(1)</sup> |                 |
| Code                       | Description     |
| H                          | Standard barrel |
| HL                         | Long barrel     |

| b             |                |
|---------------|----------------|
| Operator Type |                |
| Code          | Description    |
| FPX           | Push-pull unit |

| c         |                                    |
|-----------|------------------------------------|
| Head Type |                                    |
| Code      | Description                        |
| Blank     | Mushroom head                      |
| J         | Jumbo mushroom head <sup>(2)</sup> |

| d         |               |
|-----------|---------------|
| Color Cap |               |
| Code      | Description   |
| Blank     | No cap        |
| 1         | Green         |
| 2         | Black         |
| 4         | Gray (silver) |
| 6         | Red           |
| 7         | Blue          |
| 9         | Yellow (gold) |

| Operator Contact Function    |   |   |
|------------------------------|---|---|
| Contact Configuration        | Operator Position   |   |
|                              |  |  |
|                              | Out   | In  |
| N.O.                         | 0   | X   |
| N.C./N.C.L.B. <sup>(3)</sup> | X   | 0   |

**Note:** X = Closed/0 = Open

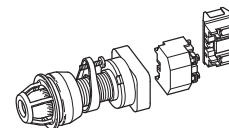
- (1) Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness of 25.4...63.5 mm (1...2.5 in.).
- (2) Not valid with color cap option code Blank (Table d)
- (3) Normally closed late break (N.C.L.B) contacts are recommended for emergency stop circuits. When the button is pushed from the OUT to the IN position, the mechanical detent action of the operator occurs before the electrical contacts change state. When the button is pulled from the IN to the OUT position, the electrical contacts change state before the mechanical detent occurs.

| e                                  |                   |                  |                     |                           |
|------------------------------------|-------------------|------------------|---------------------|---------------------------|
| Contact Blocks                     |                   |                  |                     |                           |
|                                    | Standard Contacts | PenTUFF Contacts | Logic Reed Contacts | Stackable Sealed Contacts |
| Configuration                      | Code              | Code             | Code                | Code                      |
| No contacts                        | blank             | —                | —                   | —                         |
| 1 N.O.                             | D1                | D1V              | D1R                 | D1Y                       |
| 1 N.C.                             | D2                | D2V              | D2R                 | D2Y                       |
| 1 N.O.E.M.                         | D3                | D3V              | —                   | —                         |
| 1 N.C.L.B.                         | D4                | D4V              | —                   | —                         |
| 1 S.M.C.B. <sup>(1)</sup>          | D4S               | —                | —                   | —                         |
| 1 N.O. (mini)                      | D5                | —                | —                   | —                         |
| 1 N.C. (mini)                      | D6                | —                | —                   | —                         |
| 1 N.C.L.B. – 1 N.O.                | A1                | —                | —                   | —                         |
| 1 S.M.C.B. <sup>(1)</sup> – 1 N.O. | A1S               | —                | —                   | —                         |
| 2 N.O.                             | A2                | —                | A2R                 | —                         |
| 2 N.C.                             | A4                | —                | A4R                 | —                         |
| 2 N.C.L.B.                         | A5                | —                | —                   | —                         |
| 2 S.M.C.B. <sup>(1)</sup>          | A5S               | —                | —                   | —                         |
| 1 N.C.L.B. – 1 N.C.                | A7                | —                | —                   | —                         |
| 1 N.O. – 1 N.C.                    | A                 | AV               | AR                  | AY                        |
| 2 N.O. – 2 N.C.                    | B                 | BV               | BR                  | BY                        |
| 3 N.O. – 3 N.C.                    | H                 | HV               | HR                  | HY                        |
| 4 N.O. – 4 N.C.                    | C                 | CV               | CR                  | CY                        |

(1) The Self Monitoring Contact Block (S.M.C.B.) is composed of a N.C.L.B. contact wired in series with a N.O. monitoring contact. The N.O. monitoring contact automatically closes when the S.M.C.B. is properly installed onto the E-stop operator. If the S.M.C.B. is separated from the E-stop operator, the N.O. monitoring contact will automatically open.



## 2-position, Illuminated



800    H    -    FPX    PH    16    M    A1  
           a                    b            c            d            e            f

| a                          |                 |
|----------------------------|-----------------|
| Barrel Type <sup>(1)</sup> |                 |
| Code                       | Description     |
| H                          | Standard barrel |
| HL                         | Long barrel     |

| b             |                |
|---------------|----------------|
| Operator Type |                |
| Code          | Description    |
| FPX           | Push-pull unit |

| c                    |                                    |
|----------------------|------------------------------------|
| Illumination Options |                                    |
| Code                 | Description                        |
| Transformer          |                                    |
| P                    | Incandescent                       |
| PH                   | LED                                |
| Full Voltage         |                                    |
| Q                    | Incandescent                       |
| QH                   | Universal LED                      |
| Dual-input           |                                    |
| D                    | Dual-input – diode <sup>(3)</sup>  |
| DT                   | Dual-input – transformer relay     |
| DTH                  | Dual-input transformer – relay LED |

| d                           |                          |
|-----------------------------|--------------------------|
| Voltage                     |                          |
| Code                        | Description              |
| Transformer                 |                          |
| 16                          | 120V AC, 50/60 Hz        |
| 26                          | 240V AC, 50/60 Hz        |
| 46                          | 480V AC, 50/60 Hz        |
| 56                          | 600V AC, 50/60 Hz        |
| Full Voltage – Incandescent |                          |
| 24                          | 24V AC/DC                |
| 10                          | 120V AC/DC               |
| 20                          | 240V AC/DC               |
| Universal – LED             |                          |
| 2                           | 12...130V AC/DC          |
| Dual-input                  |                          |
| 16                          | 120V AC                  |
| 24                          | 24V AC/DC <sup>(5)</sup> |

| e         |                            |
|-----------|----------------------------|
| Color Cap |                            |
| Code      | Description                |
| Blank     | No lens with no contacts   |
| X         | No lens with contacts      |
| M         | Multi-color <sup>(2)</sup> |

| Operator Contact Function        |                   |    |
|----------------------------------|-------------------|----|
| Contact Configuration            | Operator Position |    |
|                                  |                   |    |
|                                  | Out               | In |
| N.O.                             | 0                 | X  |
| N.C./N.C.L.B. <sup>(4)</sup>     | X                 | 0  |
| <b>Note:</b> X = Closed/0 = Open |                   |    |

- (1) Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness of 25.4...63.5 mm (1...2.5 in.).
- (2) Multi-color insert packet includes amber, blue, green, red, and white.
- (3) Diode type dual-input provides circuit isolation via opposing diodes. Not recommended for use with solid-state outputs and neon indicators.
- (4) Normally closed late break (N.C.L.B) contacts are recommended for emergency stop circuits. When the button is pushed from the OUT to the IN position, the mechanical detent action of the operator occurs before the electrical contacts change state. When the button is pulled from the IN to the OUT position, the electrical contacts change state before the mechanical detent occurs.
- (5) Dual-input diode only.

f

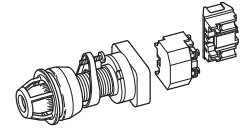
Contact Blocks

| Configuration                      | Standard Contacts | PenTUFF Contacts | Logic Reed Contacts | Stackable Sealed Contacts |
|------------------------------------|-------------------|------------------|---------------------|---------------------------|
|                                    | Code              | Code             | Code                | Code                      |
| No contacts                        | blank             | –                | –                   | –                         |
| 1 N.O.                             | D1                | D1V              | D1R                 | D1Y                       |
| 1 N.C.                             | D2                | D2V              | D2R                 | D2Y                       |
| 1 N.O.E.M.                         | D3                | D3V              | –                   | –                         |
| 1 N.C.L.B.                         | D4                | D4V              | –                   | –                         |
| 1 S.M.C.B. <sup>(1)</sup>          | D4S               | –                | –                   | –                         |
| 1 N.C.L.B. – 1 N.O.                | A1                | –                | –                   | –                         |
| 1 S.M.C.B. <sup>(1)</sup> – 1 N.O. | A1S               | –                | –                   | –                         |
| 2 N.O.                             | A2                | –                | A2R                 | –                         |
| 2 N.C.                             | A4                | –                | A4R                 | –                         |
| 2 N.C.L.B.                         | A5                | –                | –                   | –                         |
| 1 N.C.L.B. – 1 N.C.                | A7                | –                | –                   | –                         |
| 1 N.O. – 1 N.C.                    | A                 | AV               | AR                  | AY                        |
| 2 N.O. – 2 N.C.                    | G1                | G1V              | G1R                 | G1Y                       |

(1) The Self Monitoring Contact Block (S.M.C.B.) is composed of a N.C.L.B. contact wired in series with a N.O. monitoring contact. The N.O. monitoring contact automatically closes when the S.M.C.B. is properly installed onto the E-stop operator. If the S.M.C.B. is separated from the E-stop operator, the N.O. monitoring contact will automatically open.

### 3-position, Illuminated

800    H    -    FPX       PH    16    M    A1  
          a           b           c           d           e           f           g



| a                          |                 |
|----------------------------|-----------------|
| Barrel Type <sup>(1)</sup> |                 |
| Code                       | Description     |
| H                          | Standard barrel |
| HL                         | Long barrel     |

| b             |                |
|---------------|----------------|
| Operator Type |                |
| Code          | Description    |
| FPX           | Push-pull unit |

| c                 |                   |            |            |
|-------------------|-------------------|------------|------------|
| Operator Function |                   |            |            |
| Code              | Operator Position |            |            |
|                   |                   |            |            |
|                   | Out               | Center     | In         |
| M                 | Momentary         | Maintained | Maintained |
| N                 | Momentary         | Maintained | Momentary  |

(1) Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness of 25.4...63.5 mm (1...2.5 in.).

| d                    |                                    |
|----------------------|------------------------------------|
| Illumination Options |                                    |
| Code                 | Description                        |
| Transformer          |                                    |
| P                    | Incandescent                       |
| PH                   | LED                                |
| Full Voltage         |                                    |
| Q                    | Incandescent                       |
| QH                   | Universal LED                      |
| Dual-input           |                                    |
| D                    | Dual-input – diode <sup>(2)</sup>  |
| DT                   | Dual-input – transformer relay     |
| DTH                  | Dual-input transformer – relay LED |

| e                           |                          |
|-----------------------------|--------------------------|
| Voltage                     |                          |
| Code                        | Description              |
| Transformer                 |                          |
| 16                          | 120V AC, 50/60 Hz        |
| 26                          | 240V AC, 50/60 Hz        |
| Full Voltage                |                          |
| 46                          | 480V AC, 50/60 Hz        |
| 56                          | 600V AC, 50/60 Hz        |
| Full Voltage – Incandescent |                          |
| 24                          | 24V AC/DC                |
| 10                          | 120V AC/DC               |
| 20                          | 240V AC/DC               |
| Universal – LED             |                          |
| 2                           | 12...130V AC/DC          |
| Dual-input                  |                          |
| 16                          | 120V AC                  |
| 24                          | 24V AC/DC <sup>(4)</sup> |

| f         |                            |
|-----------|----------------------------|
| Color Cap |                            |
| Code      | Description                |
| Blank     | No lens with no contacts   |
| X         | No lens with contacts      |
| M         | Multi-color <sup>(1)</sup> |

| g                                |                   |        |        |                                    |
|----------------------------------|-------------------|--------|--------|------------------------------------|
| Contact Blocks                   |                   |        |        |                                    |
| Code                             | Operator Position |        |        | Description                        |
|                                  |                   |        |        |                                    |
|                                  | Out               | Center | In     |                                    |
| Standard                         |                   |        |        |                                    |
| Blank                            | –                 |        | –      | No contacts                        |
| A                                | 0<br>X            | 0<br>0 | X<br>0 | 1 N.O. - 1 N.C.                    |
| A1                               | 0<br>X            | 0<br>X | X<br>0 | 1 N.O. - 1 N.C.L.B. <sup>(3)</sup> |
| A7                               | X<br>X            | 0<br>X | 0<br>0 | 1 N.C. - 1 N.C.L.B. <sup>(3)</sup> |
| <b>Note:</b> X = Closed/O = Open |                   |        |        |                                    |

- (1) Multi-color insert packet includes amber, blue, green, red, and white.
- (2) Diode type dual-input provides circuit isolation via opposing diodes. Not recommended for use with solid-state outputs and neon indicators.
- (3) Normally closed late break (N.C.L.B) contacts are recommended for emergency stop circuits. When the button is pushed from the OUT to the IN position, the mechanical detent action of the operator occurs before the electrical contacts change state. When the button is pulled from the IN to the OUT position, the electrical contacts change state before the mechanical detent occurs.
- (4) Dual-input diode only.

**g (continued)**

**Contact Blocks**

| Configuration       | Standard Contacts | PenTUFF Contacts | Logic Reed Contacts | Stackable Sealed Contacts |
|---------------------|-------------------|------------------|---------------------|---------------------------|
|                     | Code              | Code             | Code                | Code                      |
| No contacts         | blank             | –                | –                   | –                         |
| 1 N.C.L.B. – 1 N.O. | A1                | –                | –                   | –                         |
| 1 N.C.L.B. – 1 N.C. | A7                | –                | –                   | –                         |
| 1 N.O. – 1 N.C.     | A                 | AV               | AR                  | AY                        |
| 2 N.O. – 2 N.C.     | G1                | G1V              | G1R                 | G1Y                       |

# Selector Switch Units

## 2-position, Non-illuminated



Standard Knob Operator  
Cat. No. 800H-HP2KB6AXXX



Knob Lever Operator  
Cat. No. 800H-HP17KB6AXXX



Metal Wing Lever Operator  
Cat. No. 800H-HP11KB6AXXX

|            |          |   |           |                |                |             |                          |
|------------|----------|---|-----------|----------------|----------------|-------------|--------------------------|
| <b>800</b> | <b>H</b> | - | <b>HP</b> | <b>2</b>       | <b>KB6</b>     | <b>AXXX</b> | <b>(Knob/Wing Lever)</b> |
|            | a        |   | b         | c              | d              | e           | f                        |
| <b>800</b> | <b>H</b> | - | <b>HP</b> | <b>31</b>      | <b>KB6</b>     | <b>AXXX</b> | <b>(Cylinder Lock)</b>   |
|            | a        |   | b         | c <sub>1</sub> | d <sub>1</sub> | e           | f                        |

| a                          |                 |
|----------------------------|-----------------|
| Barrel Type <sup>(1)</sup> |                 |
| Code                       | Description     |
| H                          | Standard barrel |
| HL                         | Long barrel     |

| b                   |             |
|---------------------|-------------|
| Number of Positions |             |
| Code                | Description |
| HP                  | 2-position  |

| c                       |  |
|-------------------------|--|
| Knob Insert Colors      |  |
| Code                    | Description                              |
| Blank                   | White                                    |
| X                       | Packet of colored inserts <sup>(2)</sup> |
| Metal Wing Lever Colors |  |
| A                       | Red                                      |
| Blank                   | Gray                                     |

| c <sub>1</sub>           |                                    |
|--------------------------|------------------------------------|
| Key Removal Position     |                                    |
| Code                     | Description                        |
| Maintained               |                                    |
| 31                       | Key removal – left                 |
| 32                       | Key removal – right                |
| 33                       | Key removal – both                 |
| Spring Return from Left  |                                    |
| 42                       | Key removal – right <sup>(3)</sup> |
| Spring Return from Right |                                    |
| 48                       | Key removal – left                 |

| d                          |  |
|----------------------------|--|
| Operator Type and Function |  |
| Code                       | Description                            |
| Standard Knob              |  |
| 2                          | Maintained                             |
| 4                          | Spring return from left <sup>(3)</sup> |
| 5                          | Spring return from right               |
| Knob Lever                 |  |
| 17                         | Maintained                             |
| 18                         | Spring return from left <sup>(3)</sup> |
| 19                         | Spring return from right               |
| Metal Wing Lever           |  |
| 11                         | Maintained                             |
| 15                         | Spring return from left <sup>(3)</sup> |
| 16                         | Spring return from right               |

| d <sub>1</sub> |                  |      |                  |
|----------------|------------------|------|------------------|
| Optional Keys  |                  |      |                  |
| Code           | D Series Key No. | Code | D Series Key No. |
| Blank          | D018 (std. key)  | 15   | T112             |
| 03             | D020             | 16   | T115             |
| 04             | D025             | 17   | T324             |
| 05             | D335             | 18   | T382             |
| 06             | D429             | 19   | T404             |
| 07             | D461             | 20   | T171             |
| 08             | D111             | 21   | T484             |
| 09             | D587             | 22   | T547             |
| 10             | D682             | 23   | T569             |
| 11             | D713             | 24   | T692             |
| 12             | D900             | 25   | T752             |
| 13             | D992             | 26   | T178             |
| 14             | D118             |      |                  |

| e           |                                 |
|-------------|---------------------------------|
| Cam Options |                                 |
| Code        | Description                     |
| KB6         | Cam for maintained operators    |
| KL8         | Cam for spring return operators |

| f                          |   |   |
|----------------------------|---|---|
| Contact Config. 2-position |   |   |
|                            |   |   |
| 1 N.O.                     | 0 | X |
| 1 N.C.                     | X | 0 |

X = Closed/0 = Open

- (1) Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness of 25.4...63.5 mm (1...2.5 in.).
- (2) One insert of each color (blue, green, orange, red, and yellow).
- (3) Target tables are reversed.

### f (continued)

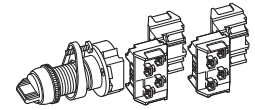
#### Contact Blocks

| Configuration   | Standard Contacts | PenTUFF Contacts | Logic Reed Contacts | Stackable Sealed Contacts |
|-----------------|-------------------|------------------|---------------------|---------------------------|
|                 | Code              | Code             | Code                | Code                      |
| No contacts     | blank             | —                | —                   | —                         |
| 1 N.O.          | DXXX              | HXXX             | VXXX                | 5XXX                      |
| 1 N.C.          | EXXX              | UXXX             | WXXX                | 6XXX                      |
| 2 N.O.          | MXXX              | —                | YXXX                | —                         |
| 2 N.C.          | NXXX              | —                | ZXXX                | —                         |
| 1 N.O. – 1 N.C. | AXXX              | FXXX             | TXXX                | 7XXX                      |
| 2 N.O. – 2 N.C. | AAXX              | FFXX             | TTXX                | 77XX                      |



### 4-position, Non-illuminated

|     |   |   |    |                |                |     |      |                   |
|-----|---|---|----|----------------|----------------|-----|------|-------------------|
| 800 | H | - | NP |                | 2              | KF4 | AAXX | (Knob/Wing Lever) |
|     | a |   | b  | c              | d              | e   | f    |                   |
| 800 | H | - | NP | 31             |                | KF4 | AXXX | (Cylinder Lock)   |
|     | a |   | b  | c <sub>1</sub> | d <sub>1</sub> | e   | f    |                   |



| a                          |                 |
|----------------------------|-----------------|
| Barrel Type <sup>(1)</sup> |                 |
| Code                       | Description     |
| H                          | Standard barrel |
| HL                         | Long barrel     |

(1) Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness of 25.4...63.5 mm (1...2.5 in.).

| b                   |             |
|---------------------|-------------|
| Number of Positions |             |
| Code                | Description |
| NP                  | 4-position  |

| c                       |  |
|-------------------------|--|
| Knob Insert Colors      |  |
| Code                    | Description                              |
| Blank                   | White                                    |
| X                       | Packet of colored inserts <sup>(1)</sup> |
| Metal Wing Lever Colors |  |
| A                       | Red                                      |
| Blank                   | Gray                                     |

(1) One insert of each color (blue, green, orange, red, and yellow).

| c <sub>1</sub>                             |                                   |
|--|-----------------------------------|
| Key Removal Position and Operator Function |                                   |
| Code                                       | Description                       |
| Maintained                                 |                                   |
| 31   | Key removal position 1            |
| 32   | Key removal position 2            |
| 33   | Key removal position 3            |
| 34   | Key removal position 4            |
| 61   | Key removal all positions         |
| Spring Return from Position 1 to 2         |                                   |
| 132  | Key removal position 2            |
| 133  | Key removal position 3            |
| 134  | Key removal position 4            |
| 154  | Key removal positions 2, 3, and 4 |
| Spring Return from Position 4 to 3         |                                   |
| 231  | Key removal position 1            |
| 232  | Key removal position 2            |
| 233  | Key removal position 3            |
| 251  | Key removal positions 1, 2, and 3 |

| d                          |                               |
|----------------------------|-------------------------------|
| Operator Type and Function |                               |
| Code                       | Description                   |
| Standard Knob              |                               |
| 2                          | Maintained                    |
| 3                          | Spring return position 1 to 2 |
| 9                          | Spring return position 4 to 3 |
| Knob Lever                 |                               |
| 17                         | Maintained                    |
| 29                         | Spring return position 1 to 2 |
| 30                         | Spring return position 4 to 3 |
| Metal Wing Lever           |                               |
| 11                         | Maintained                    |
| 13                         | Spring return position 1 to 2 |
| 14                         | Spring return position 4 to 3 |

| d <sub>1</sub>                        |                     |
|---------------------------------------|---------------------|
| Optional D-Series Keys <sup>(1)</sup> |                     |
| Code                                  | Description         |
| Blank                                 | D018 (standard key) |

(1) Devices are supplied with two keys. Replacement part number for standard D018 key is X-181170.

| e           |                  |
|-------------|------------------|
| Cam Options |                  |
| Code        | Description      |
| KF4         | F cam (standard) |
| KG4         | G cam            |
| KK4         | K cam            |
| KM4         | M cam            |
| KP4         | P cam            |
| KH4         | Overlapping cam  |

| f                       |   |
|-------------------------|---|
| Standard Contact Blocks |   |
| Code (1)                | Description   |
| Blank                   | No contacts   |
| AAXX                    | Two contact targets for a given cam as shown in the W (white side) column of <a href="#">Table 9</a> and two contact targets for the same cam as shown in the B (black side) column of <a href="#">Table 9</a> . (One Cat. No. 800T-XA contact block per side. Two contact blocks total)      |
| AAAA                    | Four contact targets for a given cam as shown in the W (white side) column of <a href="#">Table 9</a> and four contact targets for the same cam as shown in the B (black side) column of <a href="#">Table 9</a> . (Two Cat. No. 800T-XA contact blocks per side. Four contact blocks total.) |

(1) PentUFF: replace "A" with "F", Logic Reed: replace "A" with "T", Stackable Sealed Switch: replace "A" with "7"

Table 9 - Selector Switch Cam Targets

| Contact Block Suffix Code                  | Contact Block Side | Circuits | Cam Codes <sup>(1)</sup> |   |   |   |     |   |   |   |                    |   |   |   |                    |   |   |   |     |   |   |   |                    |   |   |   |   |   |   |
|--|--------------------|----------|--------------------------|---|---|---|-----|---|---|---|--------------------|---|---|---|--------------------|---|---|---|-----|---|---|---|--------------------|---|---|---|---|---|---|
|  |                    |          | KF4                      |   |   |   | KG4 |   |   |   | KK4 <sup>(2)</sup> |   |   |   | KM4 <sup>(2)</sup> |   |   |   | KP4 |   |   |   | KN4 <sup>(3)</sup> |   |   |   |   |   |   |
|  |                    |          | ↙                        | ↘ | ↗ | ↖ | ↙   | ↘ | ↗ | ↖ | ↙                  | ↘ | ↗ | ↖ | ↙                  | ↘ | ↗ | ↖ | ↙   | ↘ | ↗ | ↖ | ↙                  | ↘ | ↗ | ↖ |   |   |   |
| ↑ AAXX<br>FFXX<br>↓<br>↑ AAAA<br>FFFF<br>↓ | White              | A        | X                        | 0 | 0 | 0 | X   | X | 0 | 0 | 0                  | 0 | 0 | X | X                  | X | 0 | 0 | 0   | 0 | 0 | 0 | 0                  | X | 0 | X | 0 | 0 |   |
|  |                    | B        | 0                        | X | 0 | 0 | 0   | 0 | 0 | X | 0                  | X | X | 0 | 0                  | 0 | X | X | 0   | 0 | X | 0 | 0                  | 0 | 0 | 0 | 0 | 0 | X |
|  | Black              | A        | 0                        | 0 | 0 | X | X   | 0 | 0 | 0 | 0                  | X | 0 | 0 | X                  | 0 | 0 | X | 0   | 0 | X | 0 | 0                  | 0 | X | X | 0 | 0 | X |
|  |                    | B        | 0                        | 0 | X | 0 | 0   | 0 | 0 | 0 | X                  | 0 | X | X | 0                  | 0 | X | 0 | 0   | X | 0 | 0 | X                  | 0 | 0 | X | 0 | 0 | 0 |
|  | White              | A        | X                        | 0 | 0 | 0 | X   | X | 0 | 0 | 0                  | 0 | 0 | X | X                  | X | 0 | 0 | 0   | 0 | 0 | 0 | 0                  | X | 0 | X | 0 | 0 |   |
|  |                    | B        | 0                        | X | 0 | 0 | 0   | 0 | 0 | X | 0                  | X | X | 0 | 0                  | 0 | X | X | 0   | 0 | X | 0 | 0                  | 0 | 0 | 0 | 0 | 0 | X |
|  | Black              | A        | 0                        | 0 | 0 | X | X   | 0 | 0 | 0 | 0                  | X | 0 | 0 | X                  | 0 | 0 | X | 0   | 0 | X | 0 | 0                  | 0 | X | X | 0 | 0 | X |
|  |                    | B        | 0                        | 0 | X | 0 | 0   | 0 | 0 | 0 | X                  | 0 | X | X | 0                  | 0 | X | 0 | 0   | X | 0 | 0 | X                  | 0 | 0 | X | 0 | 0 | 0 |

(1) X = Closed, 0 = Open For additional targets and overlapping cams, see Publication [800T-2.8](#).





## Potentiometer Units

- Single-turn operation with 312° rotation.
- Rated for 300V AC/DC, 2 W max.



Potentiometer Units  
Cat. No. 800H-UP24

800     H     -     UP     13  
          a                    b                    c

| a                          |                 |
|----------------------------|-----------------|
| Barrel Type <sup>(1)</sup> |                 |
| Code                       | Description     |
| H                          | Standard barrel |
| HL                         | Long barrel     |

| b                         |             |
|---------------------------|-------------|
| Resistance <sup>(2)</sup> |             |
| Code                      | Description |
| 13                        | 1 Ω         |
| 19                        | 2.5 Ω       |
| 24                        | 5 Ω         |
| 29                        | 10 Ω        |

- (1) Standard barrel devices are suitable for mounting in panel thickness up to 25.4 mm (1 in.), including the 800H Station Covers (See [Covers and Bases on page 20](#)). Long barrel devices are suitable for mounting in panel thickness of 25.4...63.5 mm (1...2.5 in.).
- (2) For operator only (no resistive element), order catalog number 800H-NP37 which is for use with Type J potentiometers having a shaft length of 7/8 in. (22.2 mm) and a shaft diameter of 1/4 in. (6.3 mm).

## Ordering Information for Bulletin 800H Stations

Bulletin 800H Type 7 and 9 stations are available as factory assembled or as components for field assembly.

### Factory-assembled Stations

Bulletin 800H Type 7 and 9 control stations are designed to meet the requirements of the National Electrical Code. These stations are listed by Underwriters Laboratories, Inc. for Class I, Divisions 1 & 2, Groups C & D Hazardous Gases or Vapors, Class II, Divisions 1 & 2, Groups E, F & G Hazardous Dust and Class III Hazardous Fiber Locations. In addition, the single gang shallow base, Cat. No. 800H-IHZX7, meets Class I, Group B requirements as defined in the National Electrical Code.

Factory-assembled stations can be ordered in following ways:

- Standard, factory-assembled stations listed on [page 6](#).
- Custom, factory-assembled stations can be ordered by following the instructions that are listed on this page.

### Components for Field Assembled Stations

Eight-gang maximum. These 2- and 3-gang modules can be assembled into the multi-gang stations by installing a coupler kit between the enclosures. These separate bases, covers, or bases with covers are Underwriters Laboratories, Inc. listed when properly assembled. These enclosures meet the requirements of Class I, Division 1 & 2, Groups C & D, Class II, Divisions 1 & 2, Groups E, F & G, and Class III hazardous locations as defined in the National Electrical Code. Bulletin 800H Type 7 and 9 components are designed for these modular enclosures and are UL Listed for this purpose.

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**IMPORTANT** Components may be assembled as multi-gang units up to an eight-gang maximum. <sup>(1)</sup>

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- (1) Flange width is designed to comply with Underwriters Laboratories standards to enclosures with an internal free volume of up to 300 cubic inches (a maximum 8-gang assembly).

### Instructions for Ordering Custom-built Stations

The following information is required when ordering custom-built push button stations:

- Catalog number of enclosure.
- Catalog number of control units.
- Legend plate catalog number and/or marking for each unit.
- Specify vertical/horizontal marking.
- Specify your desired operator mounting sequence. We recommend that you include a sketch.

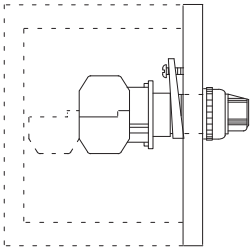
Submit your request to: [RADBQuote@ra.rockwell.com](mailto:RADBQuote@ra.rockwell.com).

## Station Design Guidelines

**IMPORTANT** See applicable codes and standards.

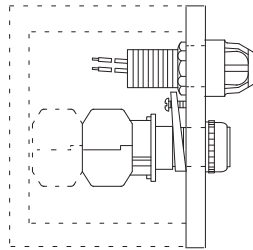
1. Push-to-test pilot lights, illuminated push buttons, push-to-pull units, 4-position selector switches, and all operators with two contact blocks that are fastened along side one another or with a power module and contact block along side one another must be installed in a single-hole cover. Illuminated operators that use the Universal LED module must be installed in a single-hole cover as well.
2. Dual push button units can only be installed in a single-hole cover or the specially designed two-hole cover (catalog number 800H-NP33), which can accommodate the dual push button and the special pigtail pilot light (catalog number 800H-LPK\*).
3. When two components are installed in one cover, contact blocks are restricted to one side of the operator. Contact blocks of each operator must face each other.
4. One level of contact blocks is the maximum in a shallow base. Contact blocks, except sealed switch type, can be mounted two deep in other bases.
5. If sealed switch contact blocks are used, a deep enclosure is required.
6. Push buttons/pilot lights:
  - a. START push buttons must be green or black flush, installed to the left or above STOP push buttons.
  - b. EMERGENCY STOP push buttons must be a red mushroom.
  - c. STOP push buttons must be red extended, installed to the right or below START push button.
  - d. STOP push buttons must be installed in the last position (bottom or right) of each unit when required.
  - e. Pilot lights must be installed in the first position (top or left side) of each unit when required.

### Design Guideline #1



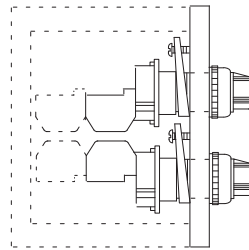
Push-to-test pilot lights, illuminated push buttons, push-pull units, 4-position selector switches, all operators with two contact blocks that are fastened along side one another or with a power module and contact block along side one another must be installed in a single-hole cover. Illuminated operators that use the Universal LED module must be installed in a single-hole cover as well.

### Design Guideline #2



Dual push button units can only be installed in a single-hole cover or the specially designed two-hole cover (catalog number 800H-NP33), which can accommodate the dual push button and the special pigtail pilot light (catalog number 800H-LPK\*).

### Design Guideline #3



When two components are installed in one cover, contact blocks are restricted to one side of the operator. Contact blocks of each operator must face each other.

### Design Guideline #4

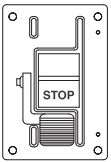
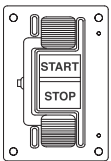
One level of contact blocks is the maximum in a shallow base. Contact blocks, except sealed switch type, can be mounted two deep in other bases.

## Covers and Bases

The following covers and bases are available for your Bulletin 800H station.

### Covers, Lever Type Actuator

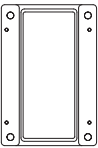
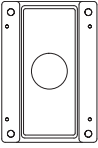
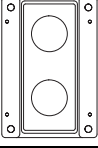
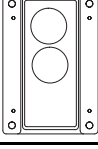
**IMPORTANT** Lever type covers are furnished without contact blocks.

| Legend  | Description                                       | Cat. No. <sup>(1)</sup> |
|---|---|-------------------------|
|  | Half lever  | 800H-NP14               |
|  | Double lever, momentary                           | 800H-NP15               |
|   | Double lever, maintained                          | 800H-NP16               |
|   | Double lever, momentary/maintained <sup>(2)</sup> | 800H-NP34               |

(1) To order a lever type cover without a legend plate, add the letter "X" to the end of the catalog number. For example: 800H-NP14X.

(2) A normally open circuit configuration is recommended for use behind this momentary lever and a late break normally closed circuit configuration is required for use behind the maintained lever to achieve proper functioning of the device.

### Covers, Component Type Button

|  | Description                     | Cat. No.  |
|--|---------------------------------|-----------|
|   | Blank                           | 800H-NP32 |
|   | One-hole <sup>(1)</sup>         | 800H-NP30 |
|   | Two-hole <sup>(2)</sup>         | 800H-NP31 |
|  | Two-hole special <sup>(3)</sup> | 800H-NP33 |

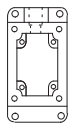
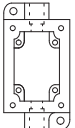
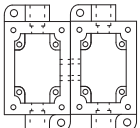
(1) One-hole covers use a jumbo legend plate only.

(2) Two-hole covers use a standard legend plate only.

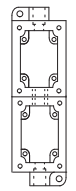
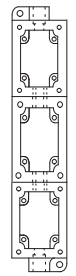
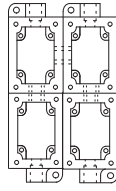
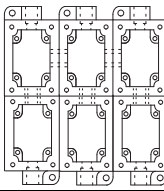
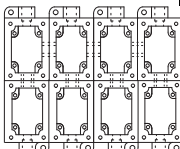
(3) This special two-hole cover can accommodate the pigtail pilot light (Bulletin 800H-LPK10 series), the dual push button or any non-illuminated unit. Legend plates (Cat. No. 800H-Y140J green and red split-field) and (Cat. No. 800H-Y141J gray full field), are the only legend plates suitable for use with this cover.

## Assembled Bases (for Field Assembly and Custom Stations)

- Enclosure Covers – See enclosure cover tables for a complete listing of covers for these bases.
- Special Conduit Entries – For conduit entries not listed, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

|   | Description                      | Conduit Entry        | Cat. No.     |
|---|----------------------------------|----------------------|--------------|
|  | 1-gang shallow <sup>(1)</sup>    | 3/4 in. dead end     | 800H-1HZX7   |
|  | 1-gang deep <sup>(2)</sup>       | 3/4 in. dead end     | 800H-1HVX7   |
|   |                                  | 3/4 in. feed through | 800H-1HVX7M1 |
|   |                                  | 1 in. dead end       | 800H-1HVX7M2 |
|   |                                  | 1 in. feed through   | 800H-1HVX7M3 |
|  | 2-gang horizontal <sup>(2)</sup> | 1 in. dead end       | 800H-2HHX7   |

- (1) Shallow base cannot accommodate sealed switched contact blocks or stacked contact blocks. Shallow base rated for Group B.
- (2) Deep base can accommodate sealed switch contact blocks or up to 2 deep standard contact blocks.

|  | Description                    | Conduit Entry      | Cat. No.   |
|--|--------------------------------|--------------------|------------|
|     | 2-gang vertical <sup>(1)</sup> |                    | 800H-2HYX7 |
|     | 3-gang vertical <sup>(1)</sup> | 1 in. feed through | 800H-3HYX7 |
|     | 4-gang <sup>(1)</sup>          |                    | 800H-4HVX7 |
|   | 6-gang <sup>(1)</sup>          | 1 in. feed through | 800H-6HVX7 |
|  | 8-gang <sup>(1)</sup>          |                    | 800H-8HVX7 |

- (1) Deep base can accommodate sealed switch contact blocks or up to 2 deep standard contact blocks.

## Bases for Multi-gang Stations

|  | Conduit Size         | Cat. No.   |
|--|----------------------|------------|
|  | 3/4 in. feed through | 800H-NP40C |
|  | 1 in. feed through   | 800H-NP40D |
|  | 3/4 in. feed through | 800H-NP41C |
|  | 1 in. feed through   | 800H-NP41D |
|  | 3/4 in. dead end     | 800H-NP42A |
|  | 1 in. dead end       | 800H-NP42B |
|  | 3/4 in. dead end     | 800H-NP43A |
|  | 1 in. dead end       | 800H-NP43B |
|  | 3/4 in. dead end     | 800H-NP44A |
|  | 1 in. dead end       | 800H-NP44B |
|  | 3/4 in. dead end     | 800H-NP46A |
|  | 1 in. dead end       | 800H-NP46B |
|  | None                 | 800H-NP45  |

**EXAMPLE:**

7-gang base with 1-in. through-feed conduit consists of the following:

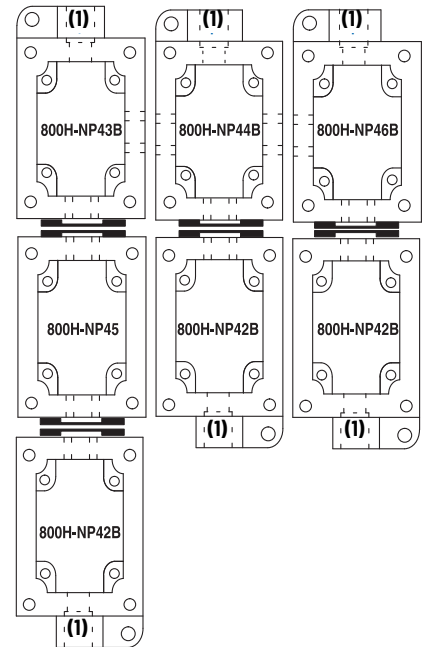
| Cat No.    | Quantity |
|------------|----------|
| 800H-NP42B | 3        |
| 800H-NP43B | 1        |
| 800H-NP44B | 1        |
| 800H-NP45  | 1        |
| 800H-NP46B | 1        |
| 800H-NP7   | 6        |

Plus up to four 1-in. plugs (catalog number 800H-NP11) to close unused conduit openings.



**WARNING:** Do not assemble more than eight enclosure gangs together, to avoid exceeding the internal volume for which the flame path of these enclosures is designed.

(1) 1-in. conduit through-feed (all gangs).


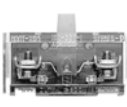



## Modifications and Accessories

### Contact Blocks



Packaged in kit form for field installation. All necessary mounting hardware is provided with each contact block kit. Contact ratings are listed on [page 5](#).

**IMPORTANT** It is not recommended to mount more than four contact blocks on any one unit (maximum two blocks deep).

| Contact Type        | <br>Shallow Block | <br>Mini Block | <br>PenTUFF (Low Voltage) Block |
|---------------------|--|--|--|
|                     | Cat. No. (1) (2)   | Cat. No. (2)   | Cat. No. (1) (2)   |
| 1 N.O.              | 800T-XD1   | 800T-XD5   | 800T-XD1V  |
| 1 N.C.              | 800T-XD2   | 800T-XD6   | 800T-XD2V  |
| 1 N.O.E.M.          | 800T-XD3   | —  | 800T-XD3V  |
| 1 N.C.L.B.          | 800T-XD4   | —  | 800T-XD4V  |
| 1 N.O. - N.C.       | 800T-XA  | —  | 800T-XAV   |
| 2 N.O.              | 800T-XA2   | —  | —  |
| 2 N.C.              | 800T-XA4   | —  | —  |
| 1 N.C.L.B. - 1 N.O. | 800T-XA1   | —  | —  |
| 1 N.C.L.B. - 1 N.C. | 800T-XA7   | —  | —  |

(1) Specify Bulletin 800TC for finger-safe contact blocks. Example: Cat. No. 800TC-XA.

(2) Contact blocks with normally closed contacts meet direct drive positive opening standard requirements.

| Contact Type    | <br>Logic Reed Block | <br>Stackable Sealed Switch Block |
|-----------------|---|---|
|                 | Cat. No.  | Cat. No.  |
| 1 N.O.          | 800T-XD1R   | 800T-XD1Y   |
| 1 N.C.          | 800T-XD2R   | 800T-XD2Y   |
| 1 N.O. - 1 N.C. | 800T-XAR  | 800T-XAY  |
| 2 N.O.          | 800T-XA2R   | —   |
| 2 N.C.          | 800T-XA4R   | —   |





## Replacement Color Caps

Table 10 - Illuminated

| Color                          |  |  |  |  |
|--------------------------------|---|---|---|---|
|                                | <b>Pilot Light</b>  | <b>Push-to-test Pilot Light</b>   | <b>Illuminated Push Button</b>  | <b>Illuminated Push-Pull</b>  |
|                                | <b>Cat. No.</b>   | <b>Cat. No.</b>   | <b>Cat. No.</b>   | <b>Cat. No.</b>   |
| Multi-color kit <sup>(1)</sup> | 800H-N104M  | 800H-N105M  | 800H-N106M  | 800H-NP50M  |



(1) Multi-color insert packet includes amber, blue, green, red, and white.

Table 11 - Non-illuminated

| Color  |  |  |  |  |
|--------|---|---|---|---|
|        | <b>Momentary Mushroom – Standard (Plastic)</b>                                    | <b>Momentary Mushroom – Jumbo (Metal)</b>   | <b>Push-pull Standard (Metal)</b>   | <b>Push-pull Jumbo (Metal)</b>  |
|        | <b>Cat. No.</b>   | <b>Cat. No. <sup>(1)</sup></b>  | <b>Cat. No.</b>   | <b>Cat. No.</b>   |
| Red    | 800T-N246R  | 800T-N248R  | 800H-NP51A  | 800H-NP52A  |
| Green  | 800T-N246G  | 800T-N248G  | 800H-NP51B  | 800H-NP52B  |
| Blue   | 800T-N246BL   | –   | 800H-NP51C  | 800H-NP52C  |
| Yellow | 800T-N246Y  | 800T-N248Y  | 800H-NP51E  | 800H-NP52E  |
| Black  | 800T-N246B  | 800T-N248B  | 800H-NP51H  | 800H-NP52H  |
| Gray   | 800T-N246GR   | –   | 800H-NP51G  | –   |

(1) To order plastic jumbo mushroom caps, replace 248 with 247. Plastic not available in natural color. Example: Cat. No. 800T-N248R becomes Cat. No. 800T-N247R.

## Replacement Knobs and Dual Push Button Assembly

| Color                         |  |  |  |  |
|-------------------------------|---|---|---|---|
|                               | <b>Standard Knob</b>  | <b>Knob Lever</b>   | <b>Wing Lever</b>   | <b>Dual Push Button</b>   |
|                               | <b>Cat. No.</b>   | <b>Cat. No.</b>   | <b>Cat. No. <sup>(1)</sup></b>  | <b>Cat. No.</b>   |
| White                         | 800H-N130F  | 800H-N131F  | –   | –   |
| Kit (Complete) <sup>(2)</sup> | 800H-N130   | 800H-N131   | –   | –   |
| Gray                          | –   | –   | 800H-N138   | –   |
| Red                           | –   | –   | 800H-N138A  | –   |
| Green Red                     | –   | –   | –   | 800H-NP39   |

(1) Standard finish is gray.

(2) Kit includes knob and packet of color inserts (blue, green, orange, red, white, and yellow).



## Boots—Non-illuminated Momentary Contact Push Buttons Units

**IMPORTANT** For Bulletin 800H/HL Type 7 and 9 operators, order one adapter and one boot per operator.

Boots supplied with control stations and components are made of a chlorosulfonated polyethylene material with stainless steel insert ring. To order boots with silicone, urethane, or ethylene propylene material, see the following table. Material application information is shown.



**IMPORTANT** Can be added to flush or extended head push button units to help protect against foreign materials reaching the opening between the push button and the locking ring.

Table 12 - Boots

| Insert Material                | Boot Color | Material                                     |                         |                         |                                   |
|--------------------------------|------------|--|-------------------------|-------------------------|-----------------------------------|
|                                |            | Chlorosulfonated Polyethylene <sup>(1)</sup> | Silicone <sup>(1)</sup> | Urethane <sup>(1)</sup> | Ethylene Propylene <sup>(1)</sup> |
|                                |            | Cat. No.                                     | Cat. No.                | Cat. No.                | Cat. No.                          |
| Stainless steel <sup>(2)</sup> | Red        | 800H-N5A                                     | 800H-N101R              | 800H-N100R              | 800H-N103R                        |
|                                | Green      | 800H-N5B                                     | 800H-N101G              | 800H-N100G              | 800H-N103G                        |
|                                | Black      | 800H-N5H                                     | 800H-N101B              | 800H-N100B              | 800H-N103B                        |
|                                | Yellow     | 800H-N5E                                     | 800H-N101Y              | 800H-N100Y              | —                                 |
|                                | Blue       | 800H-N5C                                     | 800H-N101BL             | 800H-N100BL             | —                                 |

(1) Dots printed on the inside of the boot identify the boot material.

(2) Series B boots incorporate a stainless steel insert as standard.





Table 13 - Adapters

| Push Button Type | Cat. No.  |
|------------------|-----------|
| Flush head       | 800H-NPAF |
| Extended head    | 800H-NPAE |

## Protective Boot Application Information



| Material   | Description   |
|--|---|
| Chlorosulfonated Polyethylene (synthetic rubber) | Resistant to attack by oxidizing chemicals such as concentrated sulfuric acid and hypochlorite solutions. Also resistant to attack by oils and performs well in a wide range of other chemicals and solvents. Good flex and high impact resistance. The standard boot material that is supplied with 800H NEMA Type 4/4X push buttons unless otherwise specified. |
| Silicone   | Excellent high temperature resistance. Suited for use where organic acids or vegetable oils are present. Also excellent resistance to the effects of outdoor use, such as oxygen, ozone, and weather.   |
| Urethane   | Excellent resistance to mechanical failure. Most durable boot material. Suited for use where lubricating oils and automotive fuels are present. Also well suited for outdoor use.   |
| Ethylene-propylene                               | Suited for high temperature applications. Resistant to attack by many acids and alkalies, detergents, phosphate esters, ketones, alcohols, and glycols. Outstanding service in areas with hot water and steam wash downs.   |

## Push Button Guards and Mushroom Push Button Guards

|   | Description                                  | Cat. No.  |
|---|--|-----------|
|  | Push buttons, pilot lights, and push-to-test | 800H-NP19 |
|  | Extra long guard (1 in.) for push button     | 800H-NP13 |
|  | Mushroom                                     | 800H-NP9  |
|  | Jumbo mushroom                               | 800H-NP12 |

## Protective Rings for Push-pull Operators

Stainless steel protective ring for Bulletin 800H 2-position non-illuminated push-pull operators. Often used to avoid unintentional tripping of E-stop operators. Available for standard (40 mm) or jumbo (60 mm) push buttons.

|   | Description              | Cat. No.   |
|---|--------------------------|------------|
|  | For standard-size button | 800H-NP40  |
|  | For jumbo size button    | 800H-NP40J |

## General Accessories

Table 14 - Plugs







|   | Description   | Cat. No.               |           |
|---|---|------------------------|-----------|
|   | Coupler<br>Used for both horizontal and vertical assembly.  | 800H-NP7               |           |
|  | Closing Plug<br>Whenever an enclosure with more than the required number of openings is used, this plug can be used to close the unused openings. Includes synthetic O-ring washer. | Type<br>For cover hole | 800H-NP1  |
|   |   | For base coupler Hole  | 800H-NP3  |
|  | Conduit Entry Plug<br>This plug can be used to plug unused conduit openings in Type 7 and 9 bases.  | Size<br>3/4 in.        | 800H-NP10 |
|   |   | 1 in.                  | 800H-NP11 |




Table 15 - Locking Attachments

|   | Description   | Cat. No. <sup>(1)</sup> |
|---|---|-------------------------|
|  | Push Button Padlocking Attachments<br>This device permits locking in the depressed position on extended head push button units only.  | 800H-NP2                |
|  | Dual Push Button Extended Head Padlocking Attachments<br>This device permits locking for dual push button – extended head units only.   | 800H-NP17               |
|  | Padlocking Cover <sup>(2)</sup><br>Padlocking cover is used for Type 7 and 9 selector switches, non-illuminated push buttons (except mushrooms), and non-illuminated 2-position push-pull units, but not for potentiometer units. | 800H-NP4                |

(1) Padlock not included.

(2) Push-pull units only lock in the depressed position. Padlocking cover includes blank legend plate for customer marking. A premarked legend plate entitled OPEN COVER TO OPERATE (front view) and PULL-TO-START-PUSH-TO-STOP (rear view) is available. To order legend plate only, specify Cat. No. 800H-W174L.




Table 16 - Miscellaneous

|   | Description   | Style                             | Cat. No.   |
|---|---|-----------------------------------|------------|
| <br>Cat. No. 800H-NP20   | Type 3 Flange Seal<br>This seal provides a Type 3 rating while maintaining Type 7 and 9 integrity. An approved drain (see listing) is required for condensation when using this option (refer to National Electrical Code). For a Type 4 rating, use sealing nuts and flange seal to seal the push button operators. Sealing kit includes flange seal and sealing nut. They are used with the Allen-Bradley enclosures listed on Complete Assembled Stations (Supplied with 3/4 in. Dead End Conduit Entry – Cat. No. 800H-1HZX7) for outdoor applications. | Flange Seal                       | 800H-NP20  |
|   |   | Drain for 3/4 in. Conduit Opening | 800H-NP21  |
| <br>Cat. No. 800H-NP21  |   | Drain for 1 in. Conduit Opening   | 800H-NP22  |
|   |   | Type 4 Sealing Nut                | 800H-N479  |
|   |   | Type 4 Sealing Kit                | 800H-N479F |
|   | Description   | Color                             | Cat. No.   |
| <br>Cat. No. 800H-NP23 | Color Insert Kit<br>These color insert kits are used with illuminated push buttons, pilot lights, push-pull, and push-to-test push buttons (order quantity of 1 to receive kit of 5 inserts).   | Red                               | 800H-NP23R |
|   |   | Green                             | 800H-NP23G |
|   |   | Amber                             | 800H-NP23A |
|   |   | Blue                              | 800H-NP23B |
|   |   | White                             | 800H-NP23W |
|   |   | Multi-color <sup>(1)</sup>        | 800H-NP23  |

(1) Multi-color insert packet includes amber, blue, green, red, and white.


## Replacement Lamps

**Table 17 - Pilot Lights, Illuminated Push Buttons, Illuminated Push-pull, Illuminated Push-pull/Twist to Release, and Illuminated Selector Switches**

| Lamp  | Type                     | Current, Typical                                  | Lamp Voltage      | ANSI No.        | Catalog Voltage Code      | Cat. No.                 |
|---|--------------------------|---|-------------------|-----------------|---------------------------|--------------------------|
| Incandescent<br> | Full Voltage Transformer | 150 mA/250 mA                                     | 6.3V AC           | 755/1866        | 6, 16, 26, 36, 46, 56, 76 | 800T-N65 <sup>(1)</sup>  |
|   | Full Voltage             | 80 mA   | 14V AC/DC         | 756             | 12                        | 800T-N141 <sup>(1)</sup> |
|   |                          | 70 mA   | 24V AC/DC         | 757             | 24                        | 800T-N157 <sup>(1)</sup> |
|   |                          | 50 mA   | 48V AC/DC         | 1835            | 48                        | 800T-N365 <sup>(1)</sup> |
|   | Full Voltage Resistor    | 22 mA   | 120V AC/DC        | 949             | 10, 11                    | 800T-N169 <sup>(1)</sup> |
|   | Dual-input Diode         | 57 mA   | 24V AC/DC         | 24 MB           | 24                        | 800T-N180 <sup>(1)</sup> |
| 21 mA   |                          | 120V AC   | 90 MB             | 16              | 800T-N261 <sup>(1)</sup>  |                          |
| Neon<br>         | —                        | 2 mA  | 120V AC/DC        | B2A             | 10, 20                    | 609-N9                   |
| Lamp  | Type                     | Current, Typical                                  | Lamp Voltage      | Leakage Current | Code                      | Cat. No. <sup>(2)</sup>  |
| LED<br>          | Universal                | 13 mA @ 24V DC<br>8.5 mA @ 120V AC <sup>(3)</sup> | 3V <sup>(4)</sup> | 3 mA            | 2                         | 800T-N376x               |
|   | Transformer              | 60  | 6V                | 14 mA           | 16, 26, 46, 56            | 800T-N377x               |

- (1) Item is sold in multiples of five. Order quantity of five to receive package of five pieces.
- (2) To complete the cat. no. replace the x with the first letter of the desired color: Green, Red, or White.
- (3) Typical current consumption values indicated are relative to the input of the power module.
- (4) Lamp is intended for use with power module Cat. No. 800TC-N374 which has an input voltage rating of 12 ...130V AC/DC.

**Table 18 - Legacy LED Lamps**

| Lamp  | Type                    | Current, Typical | Lamp Voltage     | Leakage Current | Catalog Voltage Code | Cat. No. <sup>(1) (2)</sup> |
|---|-------------------------|------------------|------------------|-----------------|----------------------|-----------------------------|
| LED <sup>(3)</sup><br> | Full Voltage            | 16 mA            | 24...48V AC/DC   | 3 mA            | 24, 32, 48           | 800T-N419x                  |
|   |                         | 12 mA            | 120...130V AC/DC | 3 mA            | 10, 13               | 800T-N421x                  |
|   | Flashing <sup>(4)</sup> | 18 mA            | 24V AC/DC        | —               | —                    | 800T-N319Fx                 |

- (1) In full-voltage applications, these lamps are intended to be used with power module Cat. No. 800T-N330.
- (2) To complete the cat. no. replace the x with the first letter of the desired color: Green, Red, or White.
- (3) All LEDs have an internal shunt resistor for use with solid-state outputs. LEDs do not illuminate below the listed leakage current.
- (4) Flashing rate is 2 Hz.

## Legend Plates

Table 19 - Blank Legend Plates

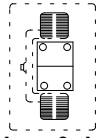
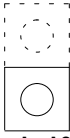
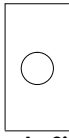
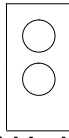
| Legend Plate Color                  |  Lever Style    |  Standard Size |  Jumbo Size |  Special Jumbo Size                  |
|-------------------------------------|--|---|--|---|
|                                     | Use 1 lever style legend with each lever type cover (Cat. Nos. 800H-NP14, -NP15, -NP16 or -NP34) | Use 2 standard size legends with each standard 2 hole cover (Cat. No. 800H-NP31)                | Use 1 jumbo size legend with each standard 1 hole cover (Cat. No. 800H-NP30)                   | Use 1 special jumbo legend with each special 2 hole cover (Cat. No. 800H-NP33) Ex: Dual Push Button/Pigtail Pilot Light |
|                                     | Cat. No.   | Cat. No.  | Cat. No.   | Cat. No.  |
| Gray                                | —  | 800H-Y59  | 800H-Y59J  | 800H-Y141J  |
| Red                                 | —  | 800H-Y121   | 800H-Y121J   | —   |
| Green                               | —  | 800H-Y136   | 800H-Y136J   | —   |
| Yellow                              | —  | 800H-Y700   | 800H-Y700J   | —   |
| Top Gray – Bottom Gray              | 800H-Y222  | —   | —  | —   |
| Top Gray – Bottom Red               | 800H-Y223  | —   | —  | —   |
| Left Green – Right Red              | —  | —   | —  | 800H-Y140J  |
| Gray with Potentiometer Graduations | —  | 800H-Y109   | 800H-Y109J   | —   |

Table 20 - Custom Legend Plates

| Legend Plate Color                  | Lever Style  | Standard Size  | Jumbo Size   | Special Jumbo Size  |
|-------------------------------------|--|--|--|---|
|                                     | Use 1 lever style legend with each lever type cover (Cat. Nos. 800H-NP14, -NP15, -NP16 or -NP34) | Use 2 standard size legends with each standard 2 hole cover (Cat. No. 800H-NP31) | Use 1 jumbo size legend with each standard 1 hole cover (Cat. No. 800H-NP30) | Use 1 special jumbo legend with each special 2 hole cover (Cat. No. 800H-NP33) Ex: Dual Push Button/Pigtail Pilot Light |
|                                     | Cat. No.   | Cat. No.   | Cat. No.   | Cat. No.  |
| Gray                                | —  | 800H-Y59E <sup>(1)</sup>   | 800H-Y59JE <sup>(1)</sup>  | 800H-Y141JE <sup>(1)</sup>  |
| Red                                 | —  | 800H-Y121E <sup>(1)</sup>  | 800H-Y121JE <sup>(1)</sup>   | —   |
| Green                               | —  | 800H-Y136E <sup>(1)</sup>  | 800H-Y136JE <sup>(1)</sup>   | —   |
| Yellow                              | —  | 800H-Y700E   | 800H-Y700JE  | —   |
| Top Gray – Bottom Gray              | 800H-Y222E <sup>(1)</sup>  | —  | —  | —   |
| Top Gray – Bottom Red               | 800H-Y223E <sup>(1)</sup>  | —  | —  | —   |
| Left Green – Right Red              | —  | —  | —  | 800H-Y140JE <sup>(1)</sup>  |
| Gray with Potentiometer Graduations | —  | 800H-Y109E <sup>(1)</sup>  | 800H-Y109JE <sup>(1)</sup>   | —   |

(1) Horizontally mounted engraved legend plates (with standard or custom marking) are available. Add the letter H after the Y in the cat. no. Example: Cat. No. 800H-Y222E becomes 800H-YH222E.

Table 21 - Lever Style Legend Plates with Standard Markings

| Legend Marking | Cat. No.  | Legend Marking   | Cat. No.  |
|----------------|-----------|------------------|-----------|
| Upper/Lower    |           | Upper/Lower      |           |
| HAND/AUTO      | 800H-Y228 | OPEN/CLOSE       | 800H-Y205 |
| JOG/RUN        | 800H-Y227 | RUN/STOP (Red)   | 800H-Y226 |
| JOG/STOP (Red) | 800H-Y206 | START/STOP (Red) | 800H-Y200 |
| ON/OFF         | 800H-Y225 |                  |           |

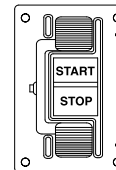
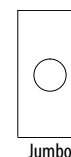


Table 22 - Legend Plates with Standard Markings

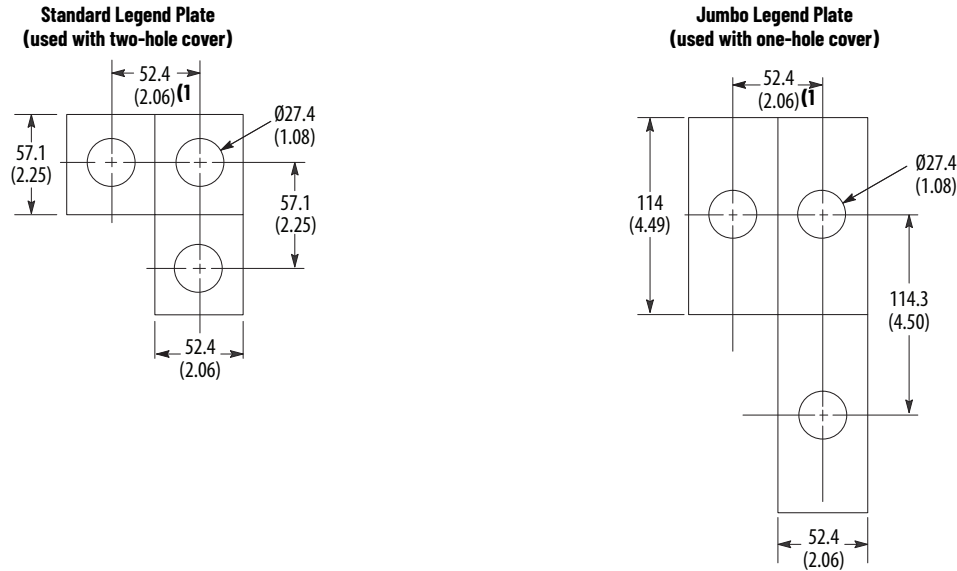
| Legend Marking    | Standard Size | Jumbo Size | Legend Marking             | Standard Size | Jumbo Size |
|-------------------|---------------|------------|----------------------------|---------------|------------|
|                   | Cat. No.      | Cat. No.   |                            | Cat. No.      | Cat. No.   |
| AUTO-OFF-HAND     | 800H-Y1       | 800H-Y1J   | ON                         | 800H-Y30      | 800H-Y30J  |
| AUTO-MAN-HAND     | 800H-Y125     | 800H-Y125J | OPEN                       | 800H-Y31      | 800H-Y31J  |
| CLOSE             | 800H-Y2       | 800H-Y2J   | OPEN-CLOSE                 | 800H-Y32      | 800H-Y32J  |
| CYCLE START       | 800H-Y62      | 800H-Y62J  | OPEN-OFF-CLOSE             | 800H-Y33      | 800H-Y33J  |
| DOWN              | 800H-Y3       | 800H-Y3J   | OUT                        | 800H-Y34      | —          |
| EMERG. STOP (Red) | 800H-Y4       | 800H-Y4J   | PUSH TO STOP-PULL TO START | 800H-Y118     | 800H-Y118J |
| FAST              | 800H-Y5       | 800H-Y5J   | POWER ON                   | 800H-Y139     | 800H-Y139J |
| FEED START        | 800H-Y66      | 800H-Y66J  | RAISE                      | 800H-Y35      | 800H-Y35J  |
| FEED STOP         | 800H-Y67      | 800H-Y67J  | RAISE-LOWER                | 800H-Y36      | 800H-Y36J  |
| FOR.-REV.         | 800H-Y6       | 800H-Y6J   | RAISE-OFF-LOWER            | 800H-Y37      | 800H-Y37J  |
| FOR.-OFF-REV.     | 800H-Y7       | 800H-Y7J   | RESET                      | 800H-Y38      | 800H-Y38J  |
| FORWARD           | 800H-Y8       | 800H-Y8J   | REVERSE                    | 800H-Y39      | 800H-Y39J  |
| FOURTH SPEED      | 800H-Y124     | 800H-Y124J | RUN                        | 800H-Y40      | 800H-Y40J  |
| FULL SPEED        | 800H-Y9       | 800H-Y9J   | RUN-INCH                   | 800H-Y134     | 800H-Y134J |
| HAND-AUTO         | 800H-Y10      | 800H-Y10J  | RUN-JOG                    | 800H-Y41      | 800H-Y41J  |
| HAND-OFF-AUTO     | 800H-Y11      | 800H-Y11J  | SAFE-RUN                   | 800H-Y42      | 800H-Y42J  |
| HIGH              | 800H-Y12      | 800H-Y12J  | SECOND SPEED               | 800H-Y43      | 800H-Y43J  |
| HIGH-LOW          | 800H-Y13      | 800H-Y13J  | SLOW                       | 800H-Y44      | 800H-Y44J  |
| HIGH-OFF-LOW      | 800H-Y14      | 800H-Y14J  | SLOW-FAST                  | 800H-Y45      | 800H-Y45J  |
| IN                | 800H-Y15      | 800H-Y15J  | SLOW-OFF-FAST              | 800H-Y46      | 800H-Y46J  |
| INCH              | 800H-Y16      | 800H-Y16J  | SPEED <sup>(1)</sup>       | 800H-Y108     | 800H-Y108J |
| JOG               | 800H-Y17      | 800H-Y17J  | START (Green)              | 800H-Y47      | 800H-Y47J  |
| JOG FORWARD       | 800H-Y18      | 800H-Y18J  | START-JOG                  | 800H-Y48      | 800H-Y48J  |
| JOG REVERSE       | 800H-Y19      | 800H-Y19J  | START-STOP                 | 800H-Y49      | 800H-Y49J  |
| JOG-RUN           | 800H-Y20      | 800H-Y20J  | STOP (Red)                 | 800H-Y50      | 800H-Y50J  |
| JOG-SAFE-RUN      | 800H-Y22      | 800H-Y22J  | STOP-START                 | 800H-Y51      | 800H-Y51J  |
| JOG-STOP-RUN      | 800H-Y21      | 800H-Y21J  | SUMMER-OFF-WINTER          | 800H-Y53      | 800H-Y53J  |
| LEFT-RIGHT        | 800H-Y23      | 800H-Y23J  | SUMMER-WINTER              | 800H-Y52      | 800H-Y52J  |
| LOW               | 800H-Y24      | 800H-Y24J  | TEST                       | 800H-Y54      | 800H-Y54J  |
| LOW SPEED         | 800H-Y25      | —          | THIRD SPEED                | 800H-Y55      | —          |
| LOWER             | 800H-Y26      | 800H-Y26J  | UP                         | 800H-Y56      | 800H-Y56J  |
| OFF               | 800H-Y27      | 800H-Y27J  | UP-DOWN                    | 800H-Y57      | 800H-Y57J  |
| OFF-COOLANT-ON    | 800H-Y28      | 800H-Y28J  | UP-OFF-DOWN                | 800H-Y58      | 800H-Y58J  |
| OFF-ON            | 800H-Y29      | 800H-Y29J  |                            |               |            |



(1) Graduated potentiometer type.

## Approximate Dimensions and Shipping Weights

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

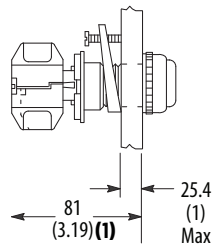


### IMPORTANT Mounting hole requirements for components – 3/4 in. - 14 NPSM. <sup>(2)</sup>

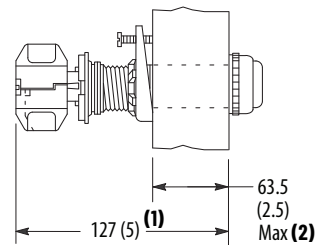
- (1) Sketch illustrates the minimum distance between center lines when mounting Bulletin 800H units with legend plates either side by side or one above the other in third-party enclosures. Minimum spacing without legend plate: When units are mounted so that the contact block terminals face each other, the 57.2 mm (2.25 in.) dimension must be used to get proper electrical clearance. When control units are mounted so that the contact block terminals do not face each other, the 46.8 mm (1.84 in.) dimension can be used.
- (2) External thread major diameter: 1.034 in. max, 1.024 in. min.  
Internal thread minor diameter: 0.958 in. min, 0.970 in. max.

### Panel Thickness Requirements

**Standard Barrel**  
(devices fit panels up to 25.4 mm [1 in.])



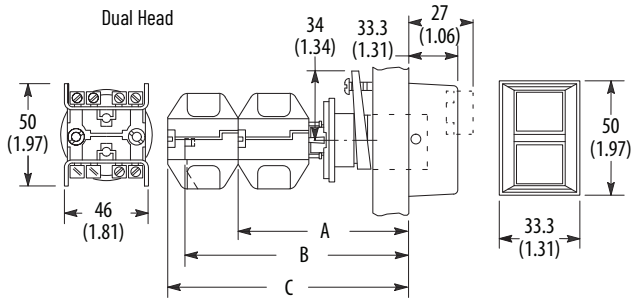
**Long Barrel**  
(devices fit panels up to 63.5 mm [2.5 in.])



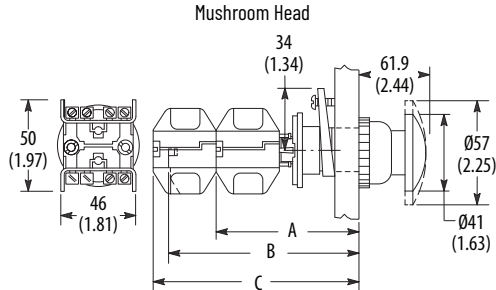
- (1) This dimension for push buttons only.  
(2) When mounting in a panel thicker than 54 mm (2.13 in.) a locking bracket is not required.

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

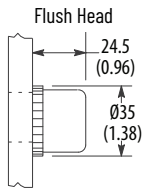
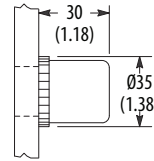
## Push Buttons



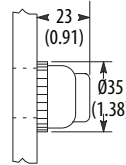
| Dim.            | A            | B            | C            | Ship. Wt. [kg (oz)] |
|-----------------|--------------|--------------|--------------|---------------------|
| Standard Barrel | 84.1 (3.31)  | 106.4 (4.19) | 112.7 (4.44) | 0.29 (10.38)        |
| Long Barrel     | 116.7 (4.59) | 138.9 (5.47) | 145.2 (5.72) | 0.37 (13)           |



Push Button with Extra Long Guard



Extended Head



| Type                               | Standard Barrel |            |            |                     | Long Barrel |              |              |                     |
|------------------------------------|-----------------|------------|------------|---------------------|-------------|--------------|--------------|---------------------|
|                                    | A (1)           | B          | C          | Ship. Wt. [kg (oz)] | A (2)       | B            | C            | Ship. Wt. [kg (oz)] |
| Mushroom, Flush, and Extended Head | 81 (3.19)       | 105 (4.13) | 111 (4.37) | 0.28 (9.88)         | 127 (5)     | 149.2 (5.87) | 155.6 (6.13) | 0.38 (13.40)        |
| Extra Long Guard                   | 81 (3.19)       | 105 (4.13) | 111 (4.37) | 0.31 (10.93)        | 127 (5)     | 149.2 (5.87) | 155.6 (6.13) | 0.40 (14.11)        |

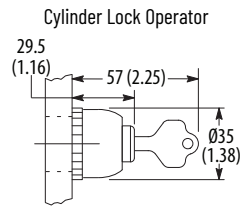
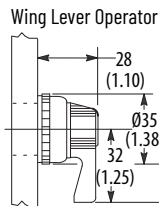
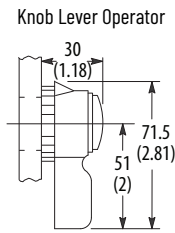
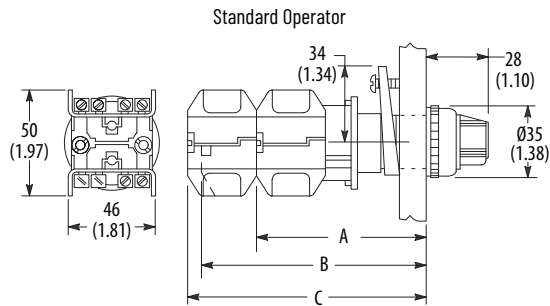
(1) When using sealed switch contact block, this dimension is 103 mm (4.06 in.).

(2) When using sealed switch contact block, this dimension is 149.2 mm (5.87 in.).



Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

## Selector Switches

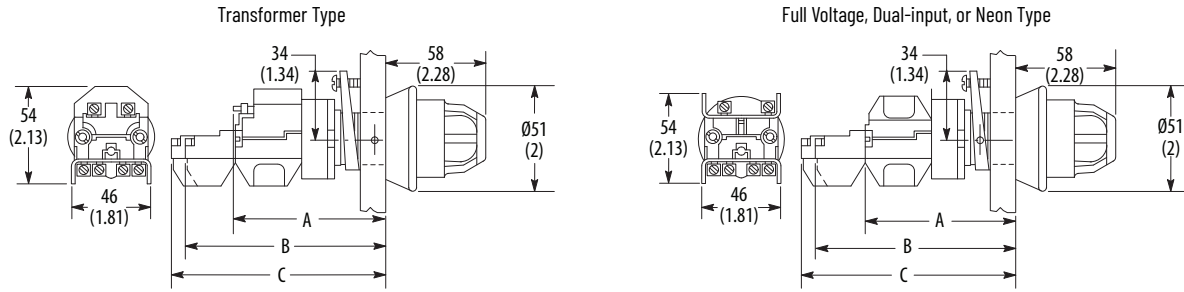


| Type                    | Standard Barrel |            |            |                     | Long Barrel |              |              |                     |
|-------------------------|-----------------|------------|------------|---------------------|-------------|--------------|--------------|---------------------|
|                         | A (1)           | B          | C          | Ship. Wt. [kg (oz)] | A (2)       | B            | C            | Ship. Wt. [kg (oz)] |
| Standard and Knob Lever | 81 (3.19)       | 105 (4.13) | 111 (4.37) | 0.27 (9.52)         | 127 (5)     | 149.2 (5.87) | 155.6 (6.13) | 0.41 (14.46)        |
| Wing Lever              | 81 (3.19)       | 105 (4.13) | 111 (4.37) | 0.30 (10.58)        | 127 (5)     | 149.2 (5.87) | 155.6 (6.13) | 0.43 (15)           |
| Cylinder Lock           | 81 (3.19)       | 105 (4.13) | 111 (4.37) | 0.32 (11.29)        | 127 (5)     | 149.2 (5.87) | 155.6 (6.13) | 0.45 (16)           |

(1) When using sealed switch contact block, this dimension is 103 mm (4.06 in.).  
 (2) When using sealed switch contact block, this dimension is 149.2 mm (5.87 in.).

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

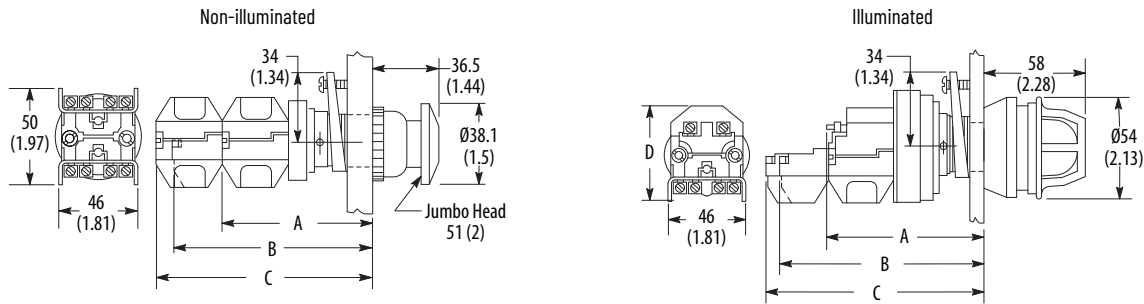
## Illuminated Push Buttons or Push-to-test Pilot Lights



| Description                            | Style           | A <sup>(1)</sup> | B            | C          | Shipping Weight [kg (oz)] |
|--|-----------------|------------------|--------------|------------|---------------------------|
| Transformer Type                       | Standard Barrel | 80.2 (3.16)      | 99 (3.90)    | 105 (4.13) | 0.40 (14)                 |
|  | Long Barrel     | 128.6 (5.06)     | 147.6 (5.81) | 154 (6.06) | 0.45 (16.19)              |
| Full Voltage, Dual-input, or Neon Type | Standard Barrel | 77 (3.03)        | 99 (3.90)    | 105 (4.13) | 0.33 (11.63)              |
|  | Long Barrel     | 125.4 (4.94)     | 147.6 (5.81) | 154 (6.06) | 0.38 (13.44)              |

(1) When using sealed switch contact block, add 22.2 mm (0.88 in.) to the listed dimension.

## Push-pull Units

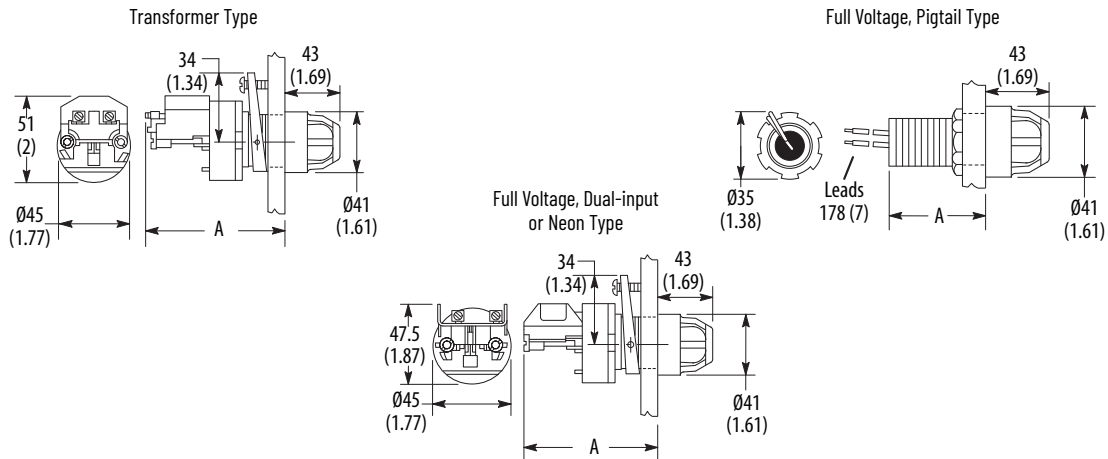


| Description                     | Style           | A <sup>(1)</sup> | B            | C            | D         | Shipping Weight [kg (oz)] |
|---------------------------------|-----------------|------------------|--------------|--------------|-----------|---------------------------|
| Illuminated Transformer Type    | Standard Barrel | 90.5 (3.56)      | 115.9 (4.56) | 117.5 (4.63) | 54 (2.13) | 0.44 (15.5)               |
|                                 | Long Barrel     | 118.3 (4.66)     | 137 (5.39)   | 143.7 (5.66) | 54 (2.13) | 0.49 (17.44)              |
| Illuminated Full Voltage Type   | Standard Barrel | 87.3 (3.44)      | 115.9 (4.56) | 117.5 (4.63) | 50 (1.97) | 0.36 (12.81)              |
|                                 | Long Barrel     | 115.1 (4.53)     | 137 (5.39)   | 143.7 (5.66) | 50 (1.97) | 0.41 (14.75)              |
| Non-illuminated Push-pull Units | Standard Barrel | 88.9 (3.50)      | 111.1 (4.37) | 117.5 (4.63) | —         | 0.32 (11.13)              |
|                                 | Long Barrel     | 115.1 (4.53)     | 137 (5.39)   | 143.7 (5.66) | —         | 0.34 (12.31)              |

(1) When using sealed switch contact block, add 22.2 mm (0.88 in.) to the listed dimension.

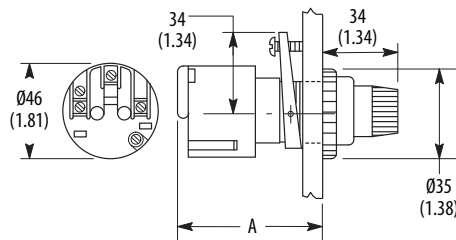
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

## Pilot Lights



| Description  | Style           | A            | Shipping Weight [kg (oz)] |
|--|-----------------|--------------|---------------------------|
| Transformer type and dual-input transformer-type pilot lights          | Standard Barrel | 80 (3.16)    | 0.24 (8.56)               |
|  | Long Barrel     | 115.9 (4.56) | 0.85 (30.25)              |
| Full voltage, neon, or dual-input diode and resistor-type pilot lights | Standard Barrel | 77 (3.03)    | 0.17 (5.81)               |
|  | Long Barrel     | 112.7 (4.44) | 0.77 (27.5)               |
| Full-voltage pigtail-type pilot lights                                 | Standard Barrel | 55.5 (2.19)  | 0.16 (5.63)               |
|  | Long Barrel     | 94 (3.70)    | 0.24 (8.31)               |

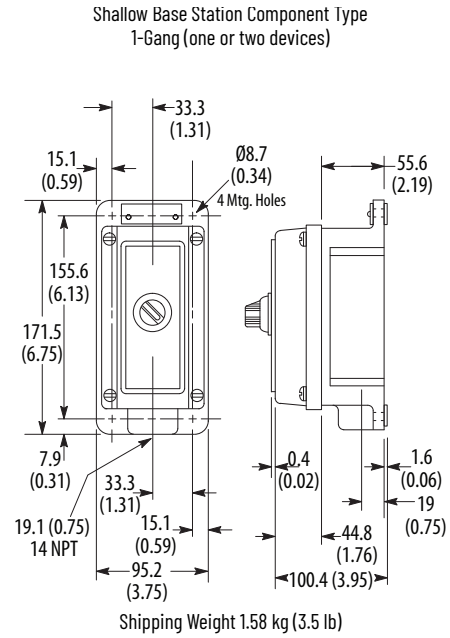
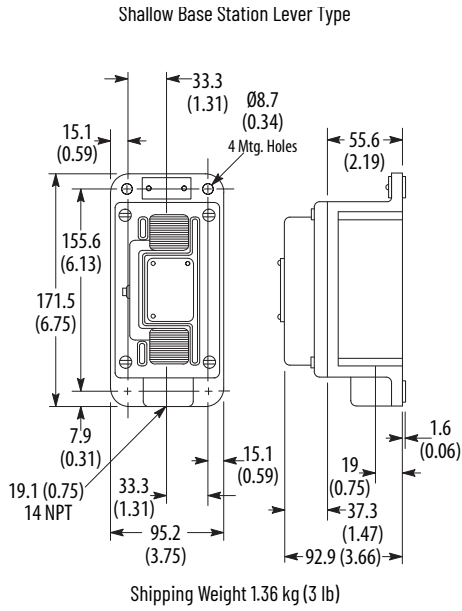
## Potentiometer Units



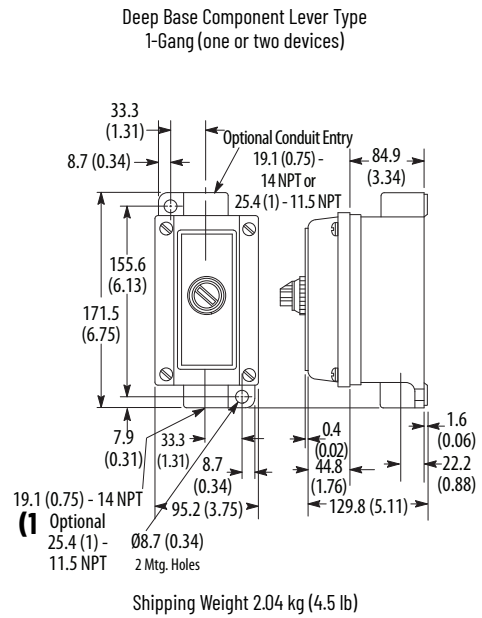
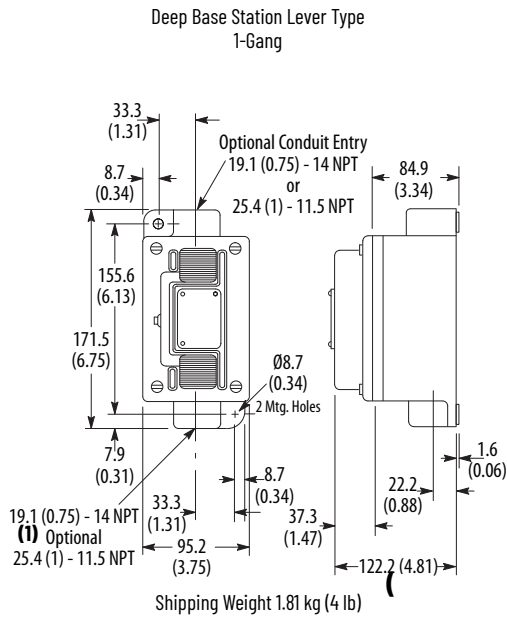
| Style           | A           | Shipping Weight [kg (oz)] |
|-----------------|-------------|---------------------------|
| Standard Barrel | 79.5 (3.13) | 0.16 (5.38)               |
| Long Barrel     | 114.3 (4.5) | 0.23 (8)                  |

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

## Shallow Base Stations



## Deep Base Stations



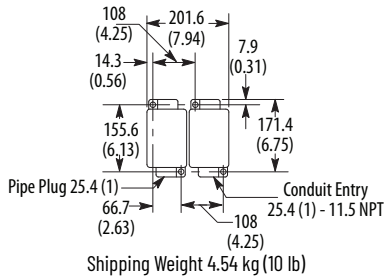
- (1) When using a flange seal, an approved drain fitting must be provided (refer to National Electrical Code).
- (2) When used, add the following to the max depth: flange seal adds 4.8 mm (0.19 in.); sealing well with integral flange seal adds 12.7 mm (0.5 in.).

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

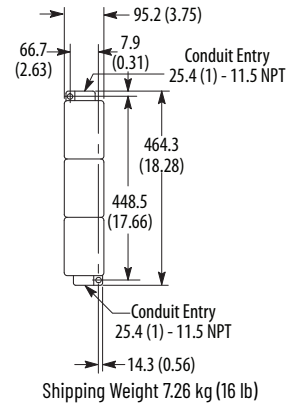
## Factory-assembled Stations

For depth dimensions, see [Deep Base Stations on page 36](#).

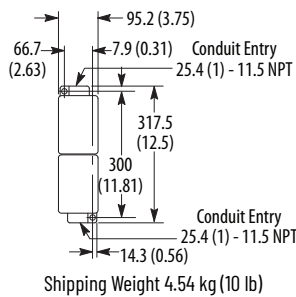
Control Station, 2-Gang (up to four devices)



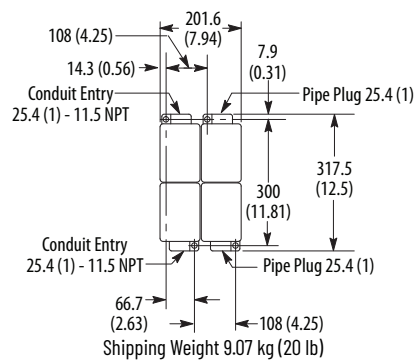
Control Station, 3-Gang (up to six devices)



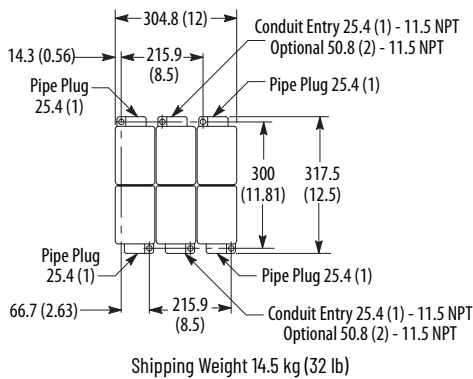
Control Station, 2-Gang (up to four devices)



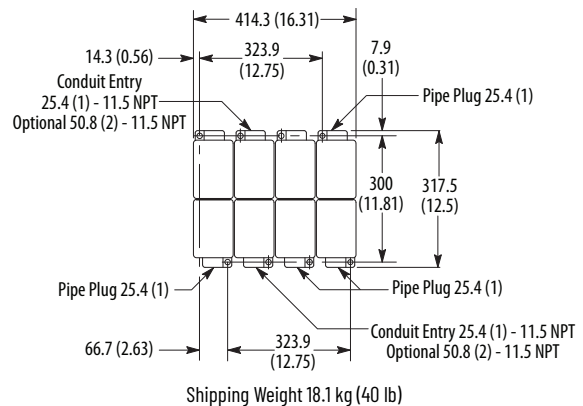
Control Station, 4-Gang (up to eight devices)



Control Station, 6-Gang (up to 12 devices)



Control Station, 8-Gang (up to 16 devices)



**Notes:**

Our Bulletin 800R Stations consist of Bulletin 800H (Type 4/4X/13) or Bulletin 800T (Type 4/13) operators with the 800TC-XAF Explosion-protected contact block. These units are available as factory assembled stations or as components for field assembly.

### Specifications



**ATTENTION:** Performance data that is given in this publication is provided only as a guide for you to determine suitability and does not constitute a performance warranty of any kind. Such data may represent the results of accelerated testing at elevated stress levels, and you are responsible for correlating the data to actual application requirements. ALL WARRANTIES AS TO ACTUAL PERFORMANCE, WHETHER EXPRESS OR IMPLIED, ARE EXPRESSLY DISCLAIMED.

**Table 23 - Electrical Ratings**

| Attribute                    | Value   |
|------------------------------|---|
| Contact Ratings              | See the contact ratings on <a href="#">page 40</a>                  |
| Dielectric Strength          | 2200V for 1 minute, 1300V for 1 minute (Logic Reed)                 |
| Electrical Design Lifecycles | 1,000,000 at max rated load, 200,000 at max rated load (Logic Reed) |

**Table 24 - Mechanical Ratings**

| Attribute  | Value   |                             |
|--|---|-----------------------------|
| Vibration  | 10...2000 Hz 1.52 mm displacement (peak-to-peak) max/10 G max (except Logic Reed)                                 |                             |
| Shock  | 1/2 cycle sine-wave for 11 ms $\geq 25$ G (contact fragility) and no damage at 100 G                              |                             |
| Degree of Protection                                   | Type 4/4X/13, 4/13; Watertight/Corrosion-resistant IEC 529 IP66/65  |                             |
| Mechanical Design Lifecycles                           |   |                             |
| Push Buttons   | (Momentary, Non-illuminated)  | 1,000,000 min.              |
|  | (Momentary, Illuminated)  | 250,000 min.                |
|  | (Push-pull/Twist-to-release)  | 250,000 min.                |
| Selector Switches                                      | (Non-illuminated)   | 1,000,000 min.              |
|  | (Illuminated)   | 200,000 min.                |
| All other devices                                      | 200,000 min.  |                             |
| Contact Block Operation                                | Explosion-protected   | Slow, double make and break |
|  | Logic Reed and sealed switch  | Single break magnetic       |
| Typical Operating Forces                               |   |                             |
| Operators without contact blocks:                      | Flush, extended, standard mushroom, jumbo plastic mushroom: 2 lb max<br>Maintained selector switch: 3.6 in•lb max |                             |
| Spring-return Selector Switches                        | 3.6 in•lb to stop<br>0.2 in•lb to return  |                             |
| Illuminated Push Buttons and Push-to-test Pilot Lights | 5 lb max  |                             |
| 3-position Push-pull                                   | 8 lb max push to in position or pull to center position<br>(15 lb max pull to out position)                       |                             |
| Push-pull and Push-pull/Twist                          | 9 lb max push or pull<br>30 in•oz max twist, 6 in•oz min return   |                             |
| Contact Blocks   | Logic Reed  | 1 lb max                    |
|  | Explosion-protected   | 1.6 lb                      |
|  | Stackable Sealed Switch   | 1 lb max                    |

**Table 25 - Environmental Ratings**

| Attribute                        | Value                 |                              |
|----------------------------------|-----------------------|------------------------------|
| Temperature Range <sup>(1)</sup> | Operating             | -40...+55 °C (-40...+131 °F) |
|                                  | Storage               | -40...+85 °C (-40...+185 °F) |
| Humidity                         | 50% at 40 °C (104 °F) |                              |

(1) Operating temperatures below freezing are based on the absence of freezing moisture and liquids. Consult your local Rockwell Automation sales office or Allen-Bradley distributor for use in lower temperature applications.

## Control Stations

Bulletin 800R control stations are designed for Division 2 hazardous locations. They consist of Bulletin 800H (Type 4/4X/13) or Bulletin 800T (Type 4/13) operators with Class I, Division 2 certified contact blocks. Bulletin 800R units are available as factory assembled stations or as components for field assembly.

## Hazardous Locations

Explosion-protected, stackable sealed switch, and logic reed contact blocks are listed by Underwriter’s Laboratories as suitable for Class I, Division 2 Groups A, B, C, and D hazardous locations. Complete 800R stations as shown on <https://www.rockwellautomation.com/en-us/products/hardware/allen-bradley/push-buttons-and-signaling-devices/haz-loc-push-buttons/800r-hazloc-push-buttons.html#selection>, are listed by Underwriter Laboratories as suitable for use in Class I and Class II Division 2 applications.

The individual components that are shown in the Bulletin 800T and 800H sections are also suitable for Class I, Division 2 locations providing they are suitably mounted by the customer in an enclosure as required for the application and by applicable codes and laws.

**IMPORTANT** Allen-Bradley Logic Reed contact blocks are also listed by Underwriters Laboratories for the Division 2 hazardous locations that are listed above.



**WARNING:** The complete stations and individual components that are listed on <https://www.rockwellautomation.com/en-us/products/hardware/allen-bradley/push-buttons-and-signaling-devices/haz-loc-push-buttons/800r-hazloc-push-buttons.html#selection> are not suitable for use in Class I Division 1 hazardous locations. For Class I and II Division 1 hazardous locations, order Bulletin 800H Type 7 and 9 stations and units.

## Explosion-protected Contacts

- Maximum thermal continuous current  $I_{th} = 10$  A
- Minimum low-energy switching load: 17V DC, 5 mA
- Electrical design lifecycles: 1,000,000 (24V DC, 25 mA)
- Vibration: 5 g, 0.7 mm peak-to-peak displacement, sine sweep 10...2000 Hz / IEC 60068-2-6
- Shock: 15 g (800H-TFRX\_ trigger action E-stops), 50 g (all other devices) / IEC 60068-2-27

Bulletin 800T units with 800TC-XAF contacts have the following ratings:

| Max Operational Volts $U_e$ | Utilization Category |      | Rated Operating Currents |        |       |
|-----------------------------|----------------------|------|--------------------------|--------|-------|
|                             | IEC                  | NEMA | Volts $U_e$              | Make   | Break |
| AC 600                      | AC-15                | A600 | 120...600                | 7200VA | 720VA |
|                             |                      |      | 72...120                 | 60 A   | 720VA |
|                             |                      |      | 24...72                  | 60 A   | 10 A  |
| DC 600                      | DC-13                | P300 | 24...300                 | 138VA  |       |
|                             |                      |      | 0...24                   | 5.0 A  |       |
|                             |                      | Q600 | 28...600                 | 69VA   |       |
|                             |                      |      | 24...28                  | 2.5 A  |       |

## Stackable Sealed Switch Contacts

- Minimum: 5V, 10 mA (digital); 24V, 1 mA (analog)
- Maximum continuous current  $I_{th}$  5.0 A.
- Electrical design lifecycles: 1,000,000 min.
- Vibration: 5 g, 0.5 mm peak-to-peak displacement, sine sweep 10...2000 Hz / IEC 60068-2-6
- Shock: 20 g / IEC 60068-2-27

| Max Operational Volts $U_e$ | Utilization Category |      | Rated Operating Current (A) |       |      |       | Volt-Amp Rating |       |
|-----------------------------|----------------------|------|-----------------------------|-------|------|-------|-----------------|-------|
|                             |                      |      | 120V                        |       | 240V |       |                 |       |
|                             | IEC                  | NEMA | Make                        | Break | Make | Break | Make            | Break |
| AC 300                      | AC-15                | B300 | 30                          | 3     | 15   | 1.5   | 3600            | 360   |
|                             |                      |      |                             |       |      |       | 69              |       |
| DC 150                      | DC-13                | Q150 | 24...150V                   |       |      |       | 69              |       |
|                             |                      |      | 0...24V                     |       |      |       | 2.5 A           |       |

## Logic Reed Contact Ratings

Maximum DC: 30V, 0.06 A Maximum AC: 150V, 0.15 A

Should only be used with resistive loads.

## Standards Compliance

- ISA 12.12.01
- CSA C22.2, No. 213

## Certifications

- UL Listed (File No. E10314, Guide No. NOIV)
- CSA Certified (File No. LR11924)



## Complete Assembled Stations

**IMPORTANT** For Class I, Division 2 push button operators, see 30 mm Push Button Specifications Technical Data, publication [800-TD009](#) or contact your local Rockwell Automation sales office or Allen-Bradley distributor.



Surface Mount  
Cat. No. 800R-1TA



Stainless Steel  
Bootless Operator Station  
Cat. No. 800R-1HA4T



Stainless Steel  
Bootless Operator Station  
Cat. No. 800R-1HA4TL



Rosite  
Bootless Operator Station  
Cat. No. 800R-1HA4R



Rosite  
Bootless Operator Station  
Cat. No. 800R-1HA4RL

Table 26 - Class I, Division 2

| Operator                          | Contact Symbol |                             | Contact Action | Button Type                  | Button Color            | Legend Marking                      | Cast Aluminum Enclosures <sup>(1)</sup> | Stainless Steel Enclosures <sup>(2)</sup> | Rosite Glass Polyester Enclosures <sup>(2)</sup> |
|-----------------------------------|----------------|-----------------------------|----------------|------------------------------|-------------------------|-------------------------------------|---|---|--|
|                                   |                |                             |                |                              |                         |                                     | Surface Mount                           | Bootless Operator Station <sup>(3)</sup>  |  |
|                                   |                |                             |                |                              |                         |                                     | Cat. No.                                | Cat. No.                                  | Cat. No.   |
| One Push Button                   |                | 1 N.O. - 1 N.C.             | Momentary      | Flush                        | Green                   | START                               | 800R-1TB                                | 800R-1HB4TL                               | 800R-1HB4RL                                      |
|                                   |                |                             |                | Extended                     | Red                     | STOP                                | 800R-1TA                                | 800R-1HA4TL                               | 800R-1HA4RL                                      |
|                                   |                |                             |                | Flush                        | Black                   | No Legend                           | 800R-1TX                                | 800R-1HX4TL                               | 800R-1HX4RL                                      |
| Two Push Buttons                  |                | 1 N.O. - 1 N.C. Each Button | Momentary      | Flush<br>Extended            | Green<br>Red            | START<br>STOP                       | 800R-2TA                                | 800R-2HA4TL                               | 800R-2HA4RL                                      |
|                                   |                |                             |                | Flush<br>Flush               | Black<br>Black          | No Legend<br>No Legend              | 800R-2TX                                | 800R-2HX4TL                               | 800R-2HX4RL                                      |
| One Pilot Light, Two Push Buttons |                | 1 N.O. - 1 N.C. Each Button | Momentary      | 120V AC<br>Flush<br>Extended | Red<br>Green<br>Red     | No Legend<br>START<br>STOP          | 800R-2TAR                               | 800R-2HAR4TL                              | 800R-2HAR4RL                                     |
|                                   |                |                             |                | 120V AC<br>Flush<br>Flush    | Red<br>Black<br>Black   | No Legend<br>No Legend<br>No Legend | 800R-2TXR                               | 800R-2HXR4TL                              | 800R-2HXR4RL                                     |
| 3-position Selector Switch        |                | 1 N.O. - 1 N.C.             | Maintained     | Knob Lever                   | Black with white insert | HAND OFF<br>AUTO                    | 800R-R3TA                               | 800R-R3HA4TL                              | 800R-R3HA4RL                                     |
|                                   |                |                             |                | Knob Lever                   | Black with white insert | No Legend                           | 800R-R3TX                               | 800R-R3HX4TL                              | 800R-R3HX4RL                                     |
| One Push Button                   |                | 1 N.O. - 1 N.C.             | Maintained     | Push-pull/<br>Twist          | Red                     | EMRG.STOP                           | 800R-1TAM                               | 800R-1HAM4TL                              | 800R-1HAM4RL                                     |
| Two Push Buttons                  |                | 1 N.O. - 1 N.C. Each Button | Maintained     | Flush<br>Extended            | Green<br>Red            | START<br>STOP                       | 800R-2TAM                               | 800R-2HAM4TL                              | 800R-2HAM4RL                                     |
|                                   |                |                             |                | Flush<br>Flush               | Black<br>Black          | No Legend<br>No Legend              | 800R-2TXM                               | 800R-2HXM4TL                              | 800R-2HXM4RL                                     |

(1) Type 4/13

(2) Type 4/4X/13

(3) To order a control station with booted push button operators, remove the L from the end of the catalog number. Example: Cat. No. 800R-1HA4TL becomes Cat. No. 800R-1HA4T. This does not apply to 3-position selector switch stations.

## Custom-built Stations

Table 26 on page 41 lists the most commonly used push button stations. Stations not listed in the table may be ordered as custom-built stations.






## Request for Quote

The following information is required when ordering custom-built push button stations:

- Catalog number of enclosure.
- Catalog number of control units.
- Legend plate catalog number and/or marking for each unit.
- Specify vertical/horizontal marking.
- Specify your desired operator mounting sequence. We recommend that you include a sketch.

Submit your request to: [RADBQuote@ra.rockwell.com](mailto:RADBQuote@ra.rockwell.com).

Table 27 - Enclosures Only

| Units <sup>(1) (2)</sup> | <br><b>Die Cast (Type 4/13)</b> | <br><b>Stainless Steel (Type 4/4X/13)</b> | <br><b>Rosite Glass Polyester (Type 4/4X/13)</b> |
|--------------------------|--|--|---|
|                          | <b>Cat. No.</b>  | <b>Cat. No.</b>  | <b>Cat. No.</b>   |
| 1                        | 800R-1TZ   | 800R-1HZ4  | 800R-1HZ4R  |
| 2                        | 800R-2TZ   | 800R-2HZ4  | 800R-2HZ4R  |
| 3                        | 800R-3TZ   | 800R-3HZ4  | 800R-3HZ4R  |
| 4                        | 800R-4TZ   | 800R-4HZ4  | 800R-4HZ4R  |
| 5                        | —  | 800R-5HZ4  | —   |
| 6                        | 800R-6TZ   | 800R-6HZ4  | 800R-6HZ4R  |

(1) Number of units that can be mounted in enclosure.

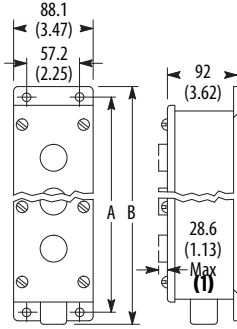
(2) 1...4 units: 3/4 in. conduit entry  
5...6 units: 1 in. conduit entry

### IMPORTANT

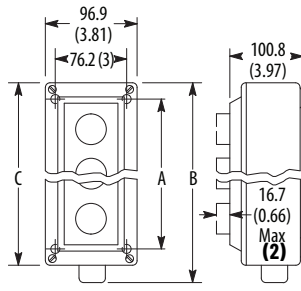
Enclosure and conduit dimensions are detailed on [page 43](#), except for the fiberglass enclosures, which are found in publication [800-TD009](#).

# Approximate Dimensions & Shipping Weights

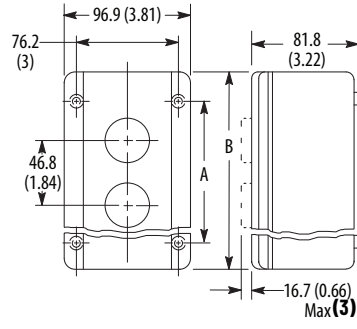
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



Type 4/4X/13  
Stainless Steel  
Watertight/Oiltight/  
Corrosion-resistant Enclosure



Type 4/4X/13  
Rosite Glass Polyester  
Watertight/Oiltight/Corrosion-resistant  
Enclosure

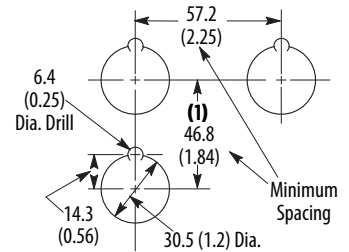


Type 4/13  
Cast Aluminum Enclosure  
Watertight/Oiltight

- (1) Selector switch is 29.4 (1.16) max; pilot light is 31 (1.22).
- (2) Selector switch is 27.8 (1.09) max; pilot light is 29.4 (1.16) max.
- (3) Selector switch is 30.9 (1.22) max; pilot light is 32.5 (1.28).

| Dimension                           | Number of Units        |            |             |             |             |                      |
|-------------------------------------|------------------------|------------|-------------|-------------|-------------|----------------------|
|                                     | 1                      | 2          | 3           | 4           | 5           | 6                    |
| <b>Stainless Steel Type 4/4X/13</b> |                        |            |             |             |             |                      |
| A                                   | 135 (5.31)             | 178 (7)    | 225 (8.86)  | 271 (10.67) | 318 (12.52) | 360 (14.17)          |
| B                                   | 163 (6.42)             | 210 (8.25) | 257 (10.12) | 304 (11.97) | 359 (14.13) | 403 (15.87)          |
| Pipe Tap Size                       | 19.05 (0.75)           |            |             | 25.4 (1)    |             |                      |
| <b>Glass Polyester Type 4/4X/13</b> |                        |            |             |             |             |                      |
| A                                   | 114 (4.5)              | 114 (4.5)  | 159 (6.25)  | 203 (8)     | 308 (12.13) | 308 (12.13)          |
| B                                   | 181 (7.13)             | 181 (7.13) | 221 (8.7)   | 271 (10.67) | 378 (14.88) | 378 (14.88)          |
| C                                   | 149 (5.87)             | 149 (5.87) | 192 (7.56)  | 241 (9.5)   | 343 (13.5)  | 343 (13.5)           |
| Pipe Tap Size                       | 19.05 (0.75)           |            |             | 25.4 (1)    |             |                      |
| <b>Cast Aluminum Type 4/13</b>      |                        |            |             |             |             |                      |
| A                                   | 69.8 (2.75)            | 114 (4.5)  | 159 (6.25)  | 203 (8)     | —           | 308 (12.13)          |
| B                                   | 106 (4.17)             | 149 (5.87) | 192 (7.56)  | 241 (9.5)   | —           | 343 (13.5)           |
| Conduit Opening                     | 19.05 (0.75)<br>14 NPT |            |             | —           |             | 25.4 (1)<br>11.5 NPT |

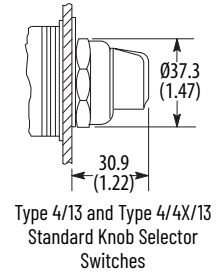
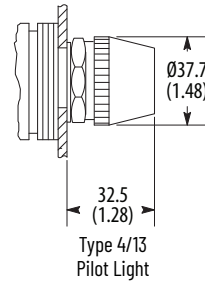
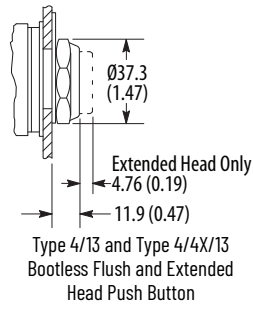
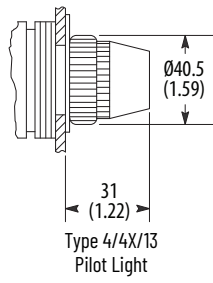
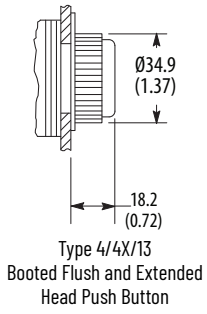
## Panel Mounting Instructions



- (1) Minimum vertical spacing dimension for jumbo legend plate is 62.7 (2.47).

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

### Operator Extension in Front of Panel



Our Bulletin 800G Hazardous Location Push Buttons are designed for industrial applications where flammable gases, vapors, or dusts may be present. These solutions are available as complete factory-assembled stations or individual components. Individual components can be used in panel mount or base mount installations.

This family of products consists of two product subsets to meet the requirements of your application:

- cULus Models – **Note: cULus Model products have been discontinued as of November 2021**  
cULus certified products for Class I Division 2 and Class I Zone 1 hazardous location applications. These products also comply with outdated EN 60079 series standards for ATEX applications.
- “-EX” Models  
ATEX, IECEx, INMETRO, and NEPSI certified products for Zone 1 and Zone 21 hazardous location applications. These products comply with EN60079 and IEC 60079 series standards per the Declaration of Conformity found at: [rok.auto/certifications](http://rok.auto/certifications).

## Specifications – cULus Models


**IMPORTANT** cULus Model products have been discontinued as of November 2021.



**ATTENTION:** Performance data that is given in this publication is provided only as a guide for you to determine suitability and does not constitute a performance warranty of any kind. Such data may represent the results of accelerated testing at elevated stress levels, and you are responsible for correlating the data to actual application requirements. ALL WARRANTIES AS TO ACTUAL PERFORMANCE, WHETHER EXPRESS OR IMPLIED, ARE EXPRESSLY DISCLAIMED.

## Standard Assembled Stations

Table 28 - Mechanical Ratings

| Attribute                     | Value  |
|-------------------------------|--|
| Protection Type               |  II 2G Ex edm IIC T6<br>AEx edm IIC T6<br>Ex edm IIC T6   |
| Certification                 | PTB 01 ATEX 1036 UL E10314 CE0044  |
| Rated Insulation Voltage, Max | 690V AC  |
| Rated Current                 | Dependent on components used   |
| Degree of Protection          | IP66, Type 4X: -20...+60 °C (-4...+140 °F)<br>IP54: -55...+60 °C (-67...+140 °F)   |
| Enclosure Material            |  |
| Enclosure                     | Thermoplastic  |
| Seals                         | EPDM   |
| Cable Glands                  |  |
| Standard                      | 12.7 mm (1/2 in.) NPT conduit hub  |
| Custom                        | <ul style="list-style-type: none"> <li>• Metal M20 for cable<br/>– Outer sheath: Ø 15.5...21.1 mm (Ø 0.61...0.83 in.)</li> <li>• Metal M25 for cable<br/>– Outer sheath: Ø 20.3...27.4 mm (Ø 0.80...1.08 in.)</li> <li>• 19.05 mm (3/4 in.) NPT conduit hub</li> </ul> |
| Wire/Cable Size               | 2.5 mm <sup>2</sup> (12 AWG) stranded max.   |
| PE Conductor Terminals        | 4 x 2.5 mm <sup>2</sup> (12 AWG) stranded max.   |
| Storage Temperature           | -55...+70 °C (-67...+158 °F)   |
| Operational Temperature Range | -55...+60 °C (-67...+140 °F)   |

## Assembled Stations

Bulletin 800G control stations are designed for Class I, Zone 1 and 2 and Class I/Division 2 hazardous location applications. They consist of Bulletin 800G front-of-panel components with back-of-panel components: contact blocks or power modules. Bulletin 800G units are available as factory assembled stations or as components for component replacement. A third party must inspect and certify field assembled stations that are used in a Class I, Zone 1 or Zone 2 application.

## Components

Because the back-of-panel components are enclosed in a flame-proof enclosure, they are suitable for use in Class I, Zone 1 and Zone 2 Groups IIA, IIB, and IIC and Class I/Division 2, Groups A, B, C, and D hazardous locations and are listed by Underwriters Laboratories and certified by PTB for this class of service. The components have "d" and "e" protection methods except for the cable termination. Cable termination has only "d" protection method, which the cable, not the contacts, restricts.



**WARNING:** The cULus assembled stations and individual components that are listed on <https://www.rockwellautomation.com/en-us/products/hardware/allen-bradley/push-buttons-and-signaling-devices/haz-loc-push-buttons/800g-hazloc-push-buttons.html#selection> are not suitable for the use in Zone 0/20, Class I/Division 1, and Class II/Division 1 and 2 applications. For Class I and II/Division 1 hazardous locations, order Bulletin 800H Type 7 and 9 stations and units.

These products are not intended for ATEX applications as they do not comply with current EN60079 series standards. For ATEX applications, see [Specifications – “-Ex” Models \(ATEX/IECEx\) on page 50](#).

## B<sub>10D</sub> / MTTFD / Lambda<sub>D</sub> Specifications

Table 29 - Non-illuminated Components

| Description                                       | Cat. No.   | B <sub>10D</sub> Value [cycles] <sup>(1)</sup> |
|---|------------|--|
| <b>Front of Panel</b>                             |            |  |
| Push Button (Non-illuminated - Flush)             | 800G-Fx    | 5,800,000                                      |
| Momentary Mushroom Push Button                    | 800G-M2    |  |
| Double Push Button (Non-illuminated - Flush)      | 800G-U2FX  |  |
|   | 800G-V2FX  |  |
| Key Release Mushroom Push Button                  | 800G-MKE   | 12,000   |
| Key Release Push Button                           | 800G-Kx    |  |
| Two-position Selector Switch (Knob)               | 800G-Sx2x  |  |
| Three-position Selector Switch (Knob)             | 800G-Sx3x  |  |
| Two-position Key Selector Switch (Key Operated)   | 800G-KSx2x |  |
| Three-position Key Selector Switch (Key Operated) | 800G-KSx3x |  |
| Push-pull Mushroom Push Button                    | 800G-MPE   |  |
| <b>Back of Panel</b>                              |            |  |
| Base Mount Contact Block (Screw Termination)      | 800G-XBx   | 1,200,000                                      |
| Latch Mount Contact Block (Screw Termination)     | 800G-XLSx  |  |
| Latch Mount Contact Block (Cable Termination)     | 800G-XLC3x |  |

(1) The B<sub>10D</sub> value [cycles] states the number of switching cycles up to which 10% of the elements failed dangerously. The determination was done via a statistical evaluation of field data.

Table 30 - Illuminated Components

| Description   | Cat. No.     | MTTF <sub>D</sub> (Years) <sup>(1)</sup> | Lambda <sub>D</sub> (Dangerous Failures/Year) <sup>(1)</sup> |
|---|--------------|--|--|
| <b>Illuminated Push Button</b>                                  |              |  |  |
| Push Button (Illuminated - Flush)                               | 800G-LFx     | 3.92E+02 Years                           | 2.91E-07   |
| Used with one of the following:                                 |              |  |  |
| Base Mount Power Module with Contact Block (Screw Termination)  | 800G-DBxXx   |  |  |
| Latch Mount Power Module with Contact Block (Screw Termination) | 800G-DLSxXx  |  |  |
| Latch Mount Power Module with Contact Block (Cable Termination) | 800G-DLC3xXx |  |  |
| <b>Pilot Light</b>  |              |  |  |
| Pilot Light   | 800G-Px      | 9.34E+03 Years                           | 1.22E-08   |
| Used with one of the following:                                 |              |  |  |
| Base Mount Power Module (Screw Termination)                     | 800G-DBx     |  |  |
| Latch Mount Power Module (Screw Termination)                    | 800G-DLSx    |  |  |
| Latch Mount Power Module (Cable Termination)                    | 800G-DLC3x   |  |  |



(1) The operating hours of all delivered products or comparable product clusters are determined and divided by the number of reports of failures for that product. The result is the MTTFD or Lambda<sub>D</sub> rating we can offer for the products our customers received.

## Contact Blocks

Table 31 - Electrical Ratings

|   | Screw Termination                              |       |       | Cable Termination                              |   |       |
|---|--|-------|-------|--|---|-------|
|   | Rated Insulation Voltage                       | 690V  |       |  | 400V (limited by the cable, not the contacts) |       |
| Rated Voltage   | 250V (per ATEX certificates)                   |       | 24V   | 250V (per ATEX certificates)                   |   | 24V   |
| Rated Operating Currents                                  | 16 A   | 10 A  | 1 A   | 16 A   | 10 A  | 1 A   |
| Utilization Category                                      | AC-12  | AC-15 | DC-13 | AC-12  | AC-15   | DC-13 |
| Thermal Continuous Current                                | 16 A at 40 °C (104 °F), 11 A at 60 °C (140 °F) |       |       | 16 A at 40 °C (104 °F), 11 A at 60 °C (140 °F) |   |       |
| Contact Rating per UL 508                                 | A600   |       | P600  | A600   |   | P600  |
| Rated Voltage per UL Contact Rating, Max                  | 600V   |       | 600V  | 600V   |   | 600V  |
| Make Current at Rated Voltage per UL Contact Rating, Max  | 12 A   |       | 0.2 A | 12 A   |   | 0.2 A |
| Break Current at Rated Voltage per UL Contact Rating, Max | 1.2 A  |       | 0.2 A | 1.2 A  |   | 0.2 A |
| Thermal Continuous Test Current per UL Contact Rating     | 10 A   |       | 5 A   | 10 A   |   | 5 A   |
| Short Circuit Protection                                  | 10 A Slow Blow, Type DT, gl                    |       |       | 10 A Slow Blow, Type DT, gl                    |   |       |

**Table 32 - Mechanical Ratings**



|                                 |             | Screw Termination  | Cable Termination  |
|---------------------------------|-------------|--|--|
| Protection Type                 |             |  II 2G Ex de IIC<br>Class I, Zone 1 AEx de IIC<br>Class I, Zone 1 Ex de IIC |  II 2G Ex d IIC T6<br>Class I, Zone 1 AEx d IIC T6<br>Class I, Zone 1 Ex d IIC T6 |
| Certification                   |             | PTB 01 ATEX 1040U UL E10314  | PTB 01 ATEX 1039X UL E10314  |
| Contact Options                 |             | 1 N.O. - 1 N.C.<br>2 N.O.<br>2 N.C.  | 1 N.O. - 1 N.C.<br>2 N.O.<br>2 N.C.  |
| Contact Material                |             | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   |
| Housing Material                |             | Thermoplastic  | Thermoplastic  |
| Physical Shock Resistance       |             | DIN IEC 68 part 2-27, 30 g, 18 ms  | DIN IEC 68 part 2-27, 30 g, 18 ms  |
| Design Life                     |             | 1,000,000 cycle mechanical life  | 1,000,000 cycle mechanical life  |
| Operating Force, Max            |             | 22.2 N (5 lb) to open N.C.<br>15.6 N (3.5 lb) to close N.O.<br>28.9 N (6.5 lb) full travel   | 22.2 N (5 lb) to open N.C.<br>15.6 N (3.5 lb) to close N.O.<br>28.9 N (6.5 lb) full travel   |
| Temperature (Storage/Transport) |             | -55...+70 °C (-67...+158 °F)   | -55...+70 °C (-67...+158 °F)   |
| Operational Temperature Range   |             | -55...+60 °C (-67...+140 °F)   | -55...+60 °C (-67...+140 °F)   |
| Wire/Cable Size                 |             | 2.5 mm <sup>2</sup> (12 AWG) stranded max  | 3 m (9.8 ft) long cable<br>4 x 1.5 mm <sup>2</sup><br>(9.1 mm/0.36 in. OD)   |
| Degree of Protection            |             | IP20, with operators and enclosure IP66  | With operators IP67  |
| Mounting                        | Base Mount  | Secures to rail integral to enclosure base   | —  |
|                                 | Panel Mount | Secures to operator with integral latch  | Secures to operator with integral latch  |

**Power Module**

**Table 33 - Electrical Ratings**

|                          | Screw Termination                           | Cable Termination                            |
|--------------------------|---|--|
| Rated Insulation Voltage | 300V  | 300V   |
| Power Consumption        | ≤1 W  | ≤1 W   |
| Lamp                     | Multi-LED (Red, Yellow, Green, White, Blue) | Multi-LED (Red, Yellow, Green, White, Blue)  |
| Rated Voltage            | 12...60V DC<br>12...250V AC                 | 24...60V DC<br>24...60V AC and 110...250V AC |

**Table 34 - Mechanical Ratings**

|                                 |             | Screw Termination  | Cable Termination  |
|---------------------------------|-------------|--|--|
| Protection Type                 |             |  II 2G Ex de IIC<br>Class I, Zone 1 AEx de IIC<br>Class I, Zone 1 Ex de IIC |  II 2G Ex d IIC T6<br>Class I, Zone 1 AEx d IIC T6<br>Class I, Zone 1 Ex d IIC T6 |
| Certification                   |             | PTB 01 ATEX 1037U UL E10314  | PTB 01 ATEX 1038X UL E10314  |
| Housing Material                |             | Thermoplastic  | Thermoplastic  |
| Physical Shock Resistance       |             | DIN IEC 68 part 2-27, 30 g, 18 ms  | DIN IEC 68 part 2-27, 30 g, 18 ms  |
| Design Life                     |             | 100,000 hours  | 100,000 hours  |
| Temperature (Storage/Transport) |             | -55...+70 °C (-67...+158 °F)   | -55...+70 °C (-67...+158 °F)   |
| Operational Temperature Range   |             | -55...+60 °C (-67...+140 °F)   | -55...+60 °C (-67...+140 °F)   |
| Wire/Cable Size                 |             | 2.5 mm <sup>2</sup> (12 AWG) stranded max  | 3 m (9.8 ft) long cable<br>4 x 1.5 mm <sup>2</sup><br>(9.1 mm/0.36 in. OD)   |
| Degree of Protection            |             | IP20, with operators and enclosure IP66  | With operators IP67  |
| Mounting                        | Base Mount  | Secures to rail integral to enclosure base   | —  |
|                                 | Panel Mount | Secures to operator with integral latch  | Secures to operator with integral latch  |





## Power Module/Contact Block Combination

Table 35 - Electrical Ratings


|                            | Screw Termination                           |        | Cable Termination                           |        |
|----------------------------|---|--------|---|--------|
| Rated Insulation Voltage   | 300V  |        | 300V  |        |
| Power Consumption          | ≤1 W  |        | ≤1 W  |        |
| Lamp                       | Multi-LED (red, yellow, green, white, blue) |        | Multi-LED (red, yellow, green, white, blue) |        |
| Rated Voltage              | 24...48V DC<br>24...250V AC                 |        | 24...48V DC<br>24...250V AC                 |        |
| Contact Rating Per UL 508  | A600  | P600   | A600  | P600   |
| Thermal Continuous Current | 1 A   | 0.25 A | 1 A   | 0.25 A |
| Rated Voltage, Max         | 600V  | 600V   | 600V  | 600V   |

Table 36 - Mechanical Ratings

|                                 | Screw Termination   |  | Cable Termination   |  |
|---------------------------------|---|--|---|--|
| Protection Type                 |  II 2G EEx de IIC<br>Class I, Zone 1 AEx de IIC<br>Class I, Zone 1 Ex de IIC |  |  II 2G EEx d IIC T6<br>Class I, Zone 1 AEx d IIC T6<br>Class I, Zone 1 Ex d IIC T6 |  |
| Certification                   | PTB 01 ATEX 1037U UL E10314   |  | PTB 01 ATEX 1038X UL E10314   |  |
| Housing Material                | Thermoplastic   |  | Thermoplastic   |  |
| Physical Shock Resistance       | DIN IEC 68 part 2-27, 30 g, 18 ms   |  | DIN IEC 68 part 2-27, 30 g, 18 ms   |  |
| Design Life                     | 100,000 hours   |  | 100,000 hours   |  |
| Temperature (Storage/Transport) | -55...+70 °C (-67...+158 °F)  |  | -30...+70 °C (-22...+158 °F)  |  |
| Operational Temperature Range   | -55...+60 °C (-67...+140 °F)  |  | -30...+60 °C (-22...+140 °F)  |  |
| Wire/Cable Size                 | 2.5 mm <sup>2</sup> (12 AWG) stranded max   |  | 3 m (9.8 ft) long cable<br>4 x 1.5 mm <sup>2</sup><br>(9.1 mm/0.36 in. OD)  |  |
| Degree of Protection            | IP20, with operators and enclosure IP66   |  | With operators IP67   |  |
| Mounting                        | Base Mount  | Secures to rail integral to enclosure base | -   |  |
|                                 | Panel Mount   | Secures to operator with integral latch    | Secures to operator with integral latch   |  |

## Front-of-panel Operators

Table 37 - Mechanical Ratings

| Device  | Operational Temperature         | Operating Force (1)                              | Mechanical Design Life | Impact Resistance | Materials   | Ingress Protection  | Ex Protection Type   |
|---|---------------------------------|--|------------------------|-------------------|---|---|--|
| Push Button                                   | -55...+70 °C<br>(-67...+158 °F) | 6.7 N (1.5 lb)                                   | 1,000,000 cycles       | 7 N•m             | <ul style="list-style-type: none"> <li>Housing: Thermoplastic</li> <li>Seals: EPDM</li> </ul> | IP66:<br>-20...+70 °C<br>(-4...+158 °F)<br><br>IP54:<br>-55...-20 °C<br>(-67...-4 °F)<br><br>Type 4X:<br>-20...+70 °C<br>(-4...+158 °F) |  II 2G EEx e II<br>PTB 01 ATEX 1035U<br>UL E10314 |
| Selector Switch                               | -55...+70 °C<br>(-67...+158 °F) | -  |                        |                   |   |   |  |
| Key Release Push Button                       | -55...+70 °C<br>(-67...+158 °F) | 15.6 N (3.5 lb)                                  |                        |                   |   |   |  |
| Key Release Mushroom                          | -55...+70 °C<br>(-67...+158 °F) | 15.6 N (3.5 lb)                                  |                        |                   |   |   |  |
| Mushroom                                      | -55...+70 °C<br>(-67...+158 °F) | 6.7 N (1.5 lb)                                   | 6000 cycles            | 4 N•m             |   |   |  |
| E-stop  | -55...+70 °C<br>(-67...+158 °F) | 44.5 N push/89 N pull<br>(10 lb push/20 lb pull) |                        |                   |   |   |  |
| Pilot Light (Red, Yellow, White, Green, Blue) | -55...+70 °C<br>(-67...+158 °F) | -  | -                      | 4 N•m             |   |   |  |
| Hole Plug                                     | -55...+70 °C<br>(-67...+158 °F) | -  | -                      | 7 N•m             |   |   |  |
| Illuminated Push Button                       | -55...+70 °C<br>(-67...+158 °F) | 6.7 N (1.5 lb)                                   | 1 x 10 <sup>6</sup>    | 7 N•m             |   |   |  |
| Key Selector Switch                           | -55...+70 °C<br>(-67...+158 °F) | -  | 1,000,000 cycles       | 7 N•m             |   |   |  |

(1) Excludes contact block.

# Specifications – “-Ex” Models (ATEX/ IECEx)



**ATTENTION:** Performance data that is given in this publication is provided only as a guide for you to determine suitability and does not constitute a performance warranty of any kind. Such data may represent the results of accelerated testing at elevated stress levels, and you are responsible for correlating the data to actual application requirements. ALL WARRANTIES AS TO ACTUAL PERFORMANCE, WHETHER EXPRESS OR IMPLIED, ARE EXPRESSLY DISCLAIMED.

## Standard Assembled Stations

**Table 38 - Mechanical Ratings**

| Attribute                       | Value  |  |
|---------------------------------|--|--|
| Certification                   | <ul style="list-style-type: none"> <li>ATEX (CML 15ATEX3024)</li> <li>IECEX (IECEX CML 15.0014)</li> </ul> | <ul style="list-style-type: none"> <li>INMETRO (UL-BR 17.0366)</li> <li>NEPSI (GYJ17.1200X)</li> </ul> |
| Approvals                       | RoHS and China RoHS  |  |
| Protection Type                 | II 2 G Ex db eb IIC T6 Gb  | II 2 D Ex tb IIIC T80°C Db   |
| Zone Ratings                    | Zone 1, Zone 2   | Zone 21, Zone 22   |
| Operational Temperature Range   | -55 °C ≤ Ta ≤ +60 °C (-67 °F ≤ Ta ≤ +140 °F)   |  |
| Ingress Protection (IP)         | IP64: Hazardous location installation<br>IP66: Non-hazardous location installation                         |  |
| Physical Shock Resistance       | DIN IEC 68 part 2-27; 30g, 18 ms   |  |
| Rated Insulation Voltage, Max   | 690V (contact block); 300V (power module)  |  |
| Rated Maximum Operating Voltage | 400V AC or 110V DC (contact block);<br>250V AC or 60V DC (power module)                                    |  |
| Rated Current                   | Depends on components that are used and ambient temperature  |  |
| Wire/Cable Size                 | 0.75...2.5 mm <sup>2</sup> (18...14 AWG)   |  |
| Enclosure Material              |  |  |
| Base and cover                  | Polypropylene (PP) with glass fiber  |  |
| Seals                           | Foam silicone  |  |
| Cable Gland Material            |  |  |
| Plastic Cable Gland             | Polyamide (PA) with silicone sealing   |  |
| Metal Cable Gland               | Brass nickel-plated with silicone sealing  |  |
| Cable Gland Sizing              |  |  |
| Plastic Cable Gland             | M20 x 1.5<br>Ø 7...13 mm<br>(Ø 0.28...0.51 in.)  | M25 x 1.5<br>Ø 12...17 mm<br>(Ø 0.47...0.67 in.)   |
| Metal Cable Gland               | M20<br>Ø 12...20 mm<br>(Ø 0.47...0.79 in.)<br>M25<br>Ø 16...26 mm<br>(Ø 0.63...1.02 in.)                   | M25<br>Ø 16...26 mm<br>(Ø 0.63...1.02 in.)   |

## Assembled Stations

Bulletin 800G “-Ex” control stations are designed for Zone 1 and 2, Zone 21 and 22 hazardous location applications. They consist of Bulletin 800G “-Ex” front-of-panel components with “-Ex” back-of-panel components: contact blocks or power modules. Bulletin 800G units are available as factory assembled stations or as components for component replacement. A third party must inspect and certify field assembled stations that are used in Zone 1 and 2, Zone 21 and 22 applications.

## Components

Because the back-of-panel components are enclosed in a flame-proof enclosure, they are suitable for use in Zone 1 and Zone 2 Groups IIA, IIB, and IIC hazardous locations as listed within ATEX and IECEx certification. The addition of the panel-mount cover accessory (catalog number 800G-APMC) provides additional dust protection for Zone 21 and 22 Groups IIIA, IIIB, and IIIC hazardous locations as listed within ATEX and IECEx certification.



**WARNING:** The “-Ex” assembled stations and individual components that are listed on <https://www.rockwellautomation.com/en-us/products/hardware/allen-bradley/push-buttons-and-signaling-devices/haz-loc-push-buttons/800g-hazloc-push-buttons.html#selection> are not suitable for the use in Zone 0/20, Class I/Division 1 and 2, and Class II/Division 1 and 2 applications. For Class I and II/Division 1 hazardous locations, order Bulletin 800H Type 7 and 9 stations and units.

## B<sub>10D</sub> / MTTFD / Lambda<sub>D</sub> Specifications

See [B10D / MTTFD / Lambda<sub>D</sub> Specifications on page 46](#).

### Contact Blocks

**Table 39 - Electrical Ratings**

| Attribute                                  | Value   |
|--|---|
| Rated Insulation Voltage (U <sub>i</sub> ) | 690V max.   |
| Utilization Category                       | AC-15: 400V AC, 10 A; AC-12: 400V AC, 16 A<br>DC-13: 110V DC, 0.5 A; DC-13: 24V DC, 1 A |
| Minimum Voltage/Current                    | 12V; 4...20 mA  |
| Short Circuit Protection                   | 10 A slow blow, Type DT, gl   |

**Table 40 - Mechanical Ratings**

| Attribute                                | Value   |  |
|--|---|--|
| Certifications                           | <ul style="list-style-type: none"> <li>• ATEX (CML 17ATEX1107U)</li> <li>• IECEx (IECEX CML 17.0047U)</li> <li>• INMETRO (UL-BR 14.0567U)</li> <li>• NEPSI (GYJ17.1398U)</li> </ul>                               |  |
| Approvals                                | RoHS; China RoHS  |  |
| Protection Type                          | II 2 G Ex db eb IIC Gb  |  |
| Zone Ratings                             | Zone 1, Zone 2  |  |
| Operational Temperature Range            | -55 °C ≤ T <sub>a</sub> ≤ +40 °C (-67 °F ≤ T <sub>a</sub> ≤ +104 °F) @ 16 A<br>-55 °C ≤ T <sub>a</sub> ≤ +60 °C (-67 °F ≤ T <sub>a</sub> ≤ +140 °F) @ 11 A  |  |
| Service Temperature Range <sup>(1)</sup> | -55 °C ≤ T <sub>a</sub> ≤ +85 °C (-67 °F ≤ T <sub>a</sub> ≤ +185 °F)  |  |
| Ingress Protection (IP)                  | IP20 (module only), IP64 (module + operator in a hazardous location) <sup>(2)</sup><br>IP66 (module + operator in a non-hazardous location) <sup>(2)</sup>  |  |
| Wire/Cable Size                          | 0.75...2.5 mm <sup>2</sup> (18...14 AWG)  |  |
| Material                                 | Housing   | Polyamide (PA)                                       |
|  | Contact   | AgSnO <sub>2</sub>                                   |
|  | O-ring  | NBR  |
| Physical Shock Resistance                | DIN IEC 68 part 2-27; 30 g, 18 ms   |  |
| Humidity (Noncondensing)                 | 95% at 20 °C (68 °F)  |  |
| Mechanical Design Life                   | ≥1,000,000 cycles   |  |
| Typical Operating Force                  | 10 N (2.25 lb-ft) to open N.C. contact; 11 N (2.47 lb-ft) to close N.O. contact<br>10 N (2.25 lb-ft) full travel 6 mm (0.24 in.) for N.C. contact; 11 N (2.47 lb-ft) full travel 6 mm (0.24 in.) for N.O. contact |  |
| Contact Configurations                   | 1 N.O. - 1 N.C.; 2 N.O.; 2 N.C.   |  |
| Mounting                                 | Base Mount  | Secures to NS 35/7.5 DIN Rail                        |
|  | Panel Mount   | Secures to 800G operator with integral bayonet latch |

(1) Service temperature range is applicable when used as an individual component within a hazardous location assembly/panel.

(2) Panel mount only.

## Power Module

**Table 41 - Electrical Ratings**

| Attribute                                  | Value                             |
|--|-----------------------------------|
| Rated Insulation Voltage (U <sub>i</sub> ) | 300V max                          |
| Rated Operating Voltage                    | 12V ... 250V AC; 12V ... 60V DC   |
| Power Consumption                          | ≤1 W                              |
| Current Draw                               | 10.5 mA @12V DC, 13.5 mA @ 60V DC |
| Electrical Design Life                     | 100,000 hours min.                |
| Multi-LED Illumination Colors              | Blue, green, red, white, yellow   |

**Table 42 - Mechanical Ratings**

| Attribute                                | Value   |
|--|---|
| Certifications                           | <ul style="list-style-type: none"> <li>• ATEX (CML 17ATEX1108U)</li> <li>• IECEx (IECEx CML 17.0048U)</li> <li>• INMETRO (UL-BR 14.0566U)</li> <li>• NEPSI (GYJ17.1399U)</li> </ul> |
| Approvals                                | RoHS; China RoHS  |
| Protection Type                          | II 2 G Ex db eb IIC T6 Gb   |
| Zone Ratings                             | Zone 1, Zone 2  |
| Operational Temperature Range            | -55 °C ≤ T <sub>a</sub> ≤ +50 °C (-67 °F ≤ T <sub>a</sub> ≤ +122 °F)<br>-55 °C ≤ T <sub>a</sub> ≤ +60 °C (-67 °F ≤ T <sub>a</sub> ≤ +140 °F) if voltage ≤ 26.4V                     |
| Service Temperature Range <sup>(1)</sup> | -55 °C ≤ T <sub>a</sub> ≤ +85 °C (-67 °F ≤ T <sub>a</sub> ≤ +185 °F)  |
| Ingress Protection (IP)                  | IP20 (module only), IP64 (module + operator in a hazardous location) <sup>(2)</sup><br>IP66 (module + operator in a non-hazardous location) <sup>(2)</sup>                          |
| Wire/Cable Size                          | 0.75...2.5 mm <sup>2</sup> (18...14 AWG)  |
| Material                                 | Housing and Lamp Tube   |
|  | O-ring  |
|  | Polyamide (PA)  |
|  | NBR   |
| Physical Shock Resistance                | DIN IEC 68 part 2...27; 30 g, 18 ms   |
| Humidity (Noncondensing)                 | 95% @ 20 °C (68 °F)   |
| Mounting                                 | Base Mount  |
|  | Panel Mount   |
|  | Secures to NS 35/7.5 DIN Rail   |
|  | Secures to 800G operator with integral bayonet latch  |

(1) Service temperature range is applicable when used as an individual component within a hazardous location assembly/panel.  
 (2) Panel mount only.

## Power Module/Contact Block Combination

**Table 43 - Electrical Ratings**

| Attribute                                  | Value    |
|--|----------|
| Rated Insulation Voltage (U <sub>i</sub> ) | 300V max |

**Table 44 - Mechanical Ratings**

| Attribute                                | Value   |
|--|---|
| Certifications                           | <ul style="list-style-type: none"> <li>• ATEX (CML 17ATEX1108U)</li> <li>• IECEx (IECEx CML 17.0048U)</li> <li>• INMETRO (UL-BR 14.0566U)</li> <li>• NEPSI (GYJ17.1399U)</li> </ul> |
| Approvals                                | RoHS; China RoHS  |
| Protection Type                          | II 2 G Ex db eb IIC T6 Gb   |
| Zone Ratings                             | Zone 1, Zone 2  |
| Operational Temperature Range            | -55 °C ≤ T <sub>a</sub> ≤ +50 °C (-67 °F ≤ T <sub>a</sub> ≤ +122 °F)<br>-55 °C ≤ T <sub>a</sub> ≤ +60 °C (-67 °F ≤ T <sub>a</sub> ≤ +140 °F), if voltage ≤ 26.4V                    |
| Service Temperature Range <sup>(1)</sup> | -55 °C ≤ T <sub>a</sub> ≤ +85 °C (-67 °F ≤ T <sub>a</sub> ≤ +185 °F)  |
| Ingress Protection (IP)                  | IP20 (module only), IP64 (module + operator in a hazardous location) <sup>(2)</sup><br>IP66 (module + operator in a non-hazardous location) <sup>(2)</sup>                          |
| Wire/Cable Size                          | 0.75...2.5 mm <sup>2</sup> (18...14 AWG)  |
| Material                                 | Housing and Lamp Tube   |
|  | Contact   |
|  | O-ring  |
|  | Polyamide (PA)  |
|  | AgSnO <sub>2</sub>  |
|  | NBR   |
| Physical Shock Resistance                | DIN IEC 68 part 2-27; 30 g, 18 ms   |
| Humidity (Noncondensing)                 | 95% @ 20 °C (68 °F)   |

(1) Service temperature range is applicable when used as an individual component within a hazardous location assembly/panel.  
 (2) Panel mount only.

**Table 45 - Contact Block Ratings**

| Attribute                | Value   |
|--------------------------|---|
| Utilization Category     | AC-15: 230V AC, 1 A; DC-13: 24V DC, 0.25 A  |
| Minimum Current/Voltage  | 100 mA @ 24V  |
| Short Circuit Protection | 10 A Slow Blow, Type DT, gl   |
| Mechanical Design Life   | ≥100,000 cycles   |
| Electrical Design Life   | ≥100,000 cycles   |
| Typical Operating Force  | 10 N (2.25 lb-ft) to open N.C. contact; 11 N (2.47 lb-ft) to close N.O. contact; 10 N (2.25 lb-ft) full travel 6 mm (0.24 in.) for N.C. contact; 11 N (2.47 lb-ft) full travel 6 mm (0.24 in.) for N.O. contact |
| Contact Configurations   | 1 N.O.; 1 N.C.  |

**Table 46 - Power Module Ratings**

| Attribute                     | Value  |
|-------------------------------|--|
| Rated Operating Voltage       | 12V ... 250V AC; 12V ... 60V DC  |
| Power Consumption             | ≤1 W   |
| Current Draw                  | 10.5 mA @ 12V DC; 13.5 mA @ 60V DC, 9.6 mA @ 12V AC, 36.0 mA @ 250V AC |
| Electrical Design Life, Min   | 100,000 hours  |
| Multi-LED Illumination Colors | Blue, green, red, white, yellow  |
| Mounting                      | Base Mount   |
|                               | Panel Mount  |
|                               | Secures to NS 35/7.5 DIN Rail  |
|                               | Secures to 800G operator with integral bayonet latch                   |

## Front-of-panel Operators

Table 47 - Mechanical Ratings

| Device  | Operational Temperature         | Operating Force <sup>(1)</sup>                   | Mechanical Design Life [cycles] | Impact Resistance | Materials   | Ingress Protection   | Certification and Protection Method   |
|---|---------------------------------|--|---------------------------------|-------------------|---|--|---|
| Push Button                                   | -55...+70 °C<br>(-67...+158 °F) | 6.7 N (1.5 lb)                                   | 200,000                         | 7 N•m             | <ul style="list-style-type: none"> <li>• Housing: Polyamide</li> <li>• Seals: Silicone</li> </ul> | IP64 <sup>(2)</sup> :<br>-55...+60 °C<br>(-67...+140 °F)<br><br>IP66 <sup>(3)</sup> :<br>-55...+60 °C<br>(-67...+140 °F) | ATEX: CML14 ATEX 3033U<br>IECEX: IECEX CML 14.0014U<br>INMETRO: UL-BR 14.0834U<br>NEPSI: GYJ17.1400U<br><br>Zone 1 and 2:<br>II 2 G Ex eb IIC Gb<br>Zone 21 and 22:<br>II 2 D Ex tb IIIC Db |
| Momentary Dual Push Button                    | -55...+70 °C<br>(-67...+158 °F) | 5 N (1.1 lb)                                     | 200,000                         |                   |   |  |   |
| Selector Switch                               | -55...+70 °C<br>(-67...+158 °F) | —  | 100,000                         |                   |   |  |   |
| Key Release Push Button                       | -55...+70 °C<br>(-67...+158 °F) | 15.6 N (3.5 lb)                                  | 100,000                         |                   |   |  |   |
| Key Release Mushroom                          | -55...+70 °C<br>(-67...+158 °F) | 15.6 N (3.5 lb)                                  | 100,000                         |                   |   |  |   |
| Momentary Mushroom                            | -55...+70 °C<br>(-67...+158 °F) | 6.7 N (1.5 lb)                                   | 200,000                         |                   |   |  |   |
| E-stop  | -55...+70 °C<br>(-67...+158 °F) | 60 N push/80 N pull<br>(13.5 lb push/18 lb pull) | 6000                            | 4 N•m             |   |  |   |
| Pilot Light (Red, Yellow, White, Green, Blue) | -55...+70 °C<br>(-67...+158 °F) | —  | —                               |                   |   |  |   |
| Hole Plug                                     | -55...+70 °C<br>(-67...+158 °F) | —  | —                               | 7 N•m             |   |  |   |
| Illuminated Push Button                       | -55...+70 °C<br>(-67...+158 °F) | 7 N (1.6 lb)                                     | 100,000                         |                   |   |  |   |
| Key Selector Switch                           | -55...+70 °C<br>(-67...+158 °F) | —  | 100,000                         |                   |   |  |   |

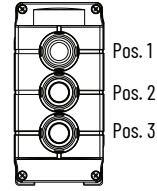
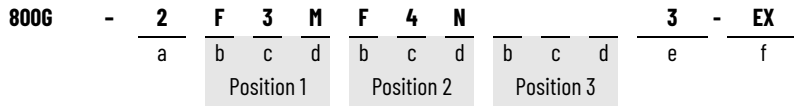
(1) Excludes contact block.

(2) For hazardous area applications.

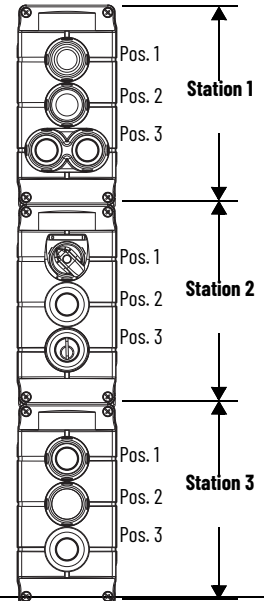
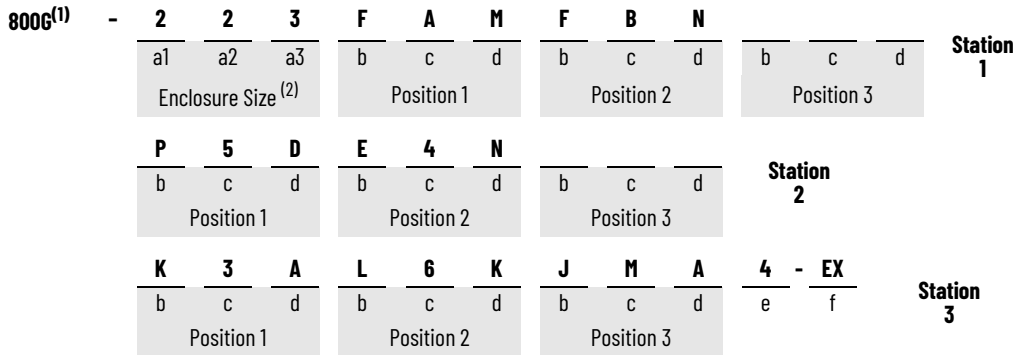
(3) For non-hazardous area applications.

# Assembled Stations

## Complete Assembled Stations



## Configurable Ganged Assembled Stations



- (1) Up to 31 characters after 800G-
- (2) a1 is the enclosure size for station 1, a2 for station 2, and a3 for station 3. If there are two enclosures that are ganged together, leave a3 blank. If there are three enclosures that are ganged together, complete a3 with the appropriate value.

| a              |             |
|----------------|-------------|
| Enclosure Size |             |
| Code           | Description |
| 1              | One-hole    |
| 2              | Two-hole    |
| 3              | Three-hole  |

| b        |  |
|----------|--|
| Operator |  |
| Code     | Description                                      |
| B        | Key release mushroom push button <sup>(1)</sup>  |
| D        | Momentary mushroom push button <sup>(2)</sup>    |
| E        | Push-pull mushroom push button <sup>(1)</sup>    |
| F        | Non-illuminated flush push button <sup>(3)</sup> |
| H        | Two-position selector switch                     |
| J        | Three-position selector switch                   |
| K        | Key release push button                          |
| L        | Illuminated push button – flush <sup>(4)</sup>   |
| N        | Hole plug <sup>(2)</sup>                         |

| b, continued |   |
|--------------|---|
| Operator     |   |
| Code         | Description   |
| P            | Pilot light <sup>(4)</sup>  |
| R            | Two-position key-operated selector switch                           |
| S            | Three-position key-operated selector switch                         |
| U            | Non-illuminated flush dual push button                              |
| 4            | Push-pull mushroom push button with locking guard <sup>(1)</sup>    |
| 5            | Non-illuminated flush push button with locking cover <sup>(3)</sup> |
| 6            | Illuminated flush push button with locking cover <sup>(4)</sup>     |
| 8            | Two-position selector switch with locking cover                     |
| 9            | Three-position selector switch with locking cover                   |

- (1) Only available in red.
- (2) Only available in black.
- (3) Not available in blue (6 from Table [c on page 55](#))
- (4) Only available in white, green, red, yellow, and blue.

| <b>c</b>                      |  |
|-------------------------------|--|
| <b>Push Button Color/Text</b> |  |
| <b>Code</b>                   | <b>Description</b>                                   |
| 1                             | White  |
| 2                             | Black  |
| 3                             | Green  |
| 4                             | Red  |
| 5                             | Yellow   |
| 6                             | Blue   |
| A                             | START (green background/<br>white text)              |
| B                             | STOP (red background/<br>white text)                 |
| C                             | I (white background/<br>black text)                  |
| D                             | II (white background/<br>black text)                 |
| E                             | O (black background/<br>white text)                  |
| G                             | I (green background/<br>white text)                  |
| H                             | O (red background/<br>white text)                    |
| J                             | ON (green background/<br>white text)                 |
| K                             | OFF (red background/<br>white text)                  |
| X                             | Includes multi-color insert<br>packet <sup>(2)</sup> |

(1) Only available for three-position selector switch.

(2) For ATEX/IECEx dual push button only.

| <b>c, continued</b>                             |  |
|---|--|
| <b>Push Button Color/Text</b>                   |  |
| <b>Code</b>                                     | <b>Description</b>   |
| <b>Key Release</b>                              |  |
| 1   | Lockable in initial position,<br>key removal in initial position     |
| 2   | Lockable in both positions,<br>key removal in both positions         |
| 3   | Lockable in depressed position,<br>key removal in depressed position |
| <b>Selector Switch</b>                          |  |
| M   | Maintained in all positions  |
| B   | Spring return from<br>both positions <sup>(1)</sup>                  |
| L   | Spring return from left <sup>(1)</sup>                               |
| R   | Spring return from right <sup>(1)</sup>                              |
| <b>Two-position Key Release Selector Switch</b> |  |
| 1   | Maintained, key removal left   |
| 2   | Maintained, key removal right  |
| 3   | Maintained, key removal all  |
| 8   | Spring return right,<br>key removal left                             |

| <b>c, continued</b>                               |   |
|---|---|
| <b>Push Button Color/Text</b>                     |   |
| <b>Code</b>                                       | <b>Description</b>                                  |
| <b>Three-position Key Release Selector Switch</b> |   |
| 1   | Maintained, key removal left                        |
| 2   | Maintained, key removal right                       |
| 3   | Maintained, key removal all                         |
| 4   | Maintained, key removal center                      |
| 5   | Maintained, key removal left/center                 |
| 6   | Maintained, key removal left/right                  |
| 7   | Maintained, key removal right/center                |
| 8   | Spring return right, key removal left               |
| 9   | Spring return right, key removal center             |
| 0   | Spring return right, key removal<br>left/center     |
| A   | Spring return left and right,<br>key removal center |
| B   | Spring return left, key removal right               |
| C   | Spring return left, key removal center              |
| D   | Spring return left, key removal<br>right/center     |

| <b>d</b>                         |   |
|----------------------------------|---|
| <b>Contact Block/Lamp Module</b> |   |
| <b>Code</b>                      | <b>Description</b>  |
| A                                | 1 N.O. - 1 N.C. base mount <sup>(1)</sup>   |
| M                                | 2 N.O. base mount <sup>(1)</sup>  |
| N                                | 2 N.C. base mount <sup>(1)</sup>  |
| D                                | Lamp module base mount (same color as requested lens color in Table <a href="#">c on page 55</a> ) <sup>(2)</sup> |
| X                                | — (hole plug)   |
| K                                | 1 N.O. with lamp module <sup>(3)</sup>  |
| L                                | 1 N.C. with lamp module <sup>(3)</sup>  |

| <b>e</b>                           |                           |
|------------------------------------|---------------------------|
| <b>Conduit Entry</b>               |                           |
| <b>Code</b>                        | <b>Description</b>        |
| <b>Bottom Entry</b>                |                           |
| 3                                  | 1 M20 plastic cable gland |
| 4                                  | 1 M25 plastic cable gland |
| 5                                  | M20 blind plug            |
| 6                                  | M25 blind plug            |
| 7                                  | 2 M20 plastic cable gland |
| 8                                  | 1 M20 metal cable gland   |
| 9                                  | 1 M25 metal cable gland   |
| <b>Top Entry</b>                   |                           |
| D                                  | 1 M20 plastic cable gland |
| E                                  | 1 M25 plastic cable gland |
| F                                  | M20 blind plug            |
| G                                  | M25 blind plug            |
| H                                  | 2 M20 plastic cable gland |
| J                                  | 1 M20 metal cable gland   |
| K                                  | 1 M25 metal cable gland   |
| <b>Through Feed <sup>(4)</sup></b> |                           |
| Q                                  | 1 M20 plastic cable gland |
| R                                  | 1 M25 plastic cable gland |
| T                                  | M20 blind plug            |
| U                                  | M25 blind plug            |
| V                                  | 2 M20 plastic cable gland |
| W                                  | 1 M20 metal cable gland   |
| X                                  | 1 M25 metal cable gland   |

| <b>f</b>                      |                    |
|-------------------------------|--------------------|
| <b>Ratings/Certifications</b> |                    |
| <b>Code</b>                   | <b>Description</b> |
| EX                            | ATEX, IECEx Zone 1 |

- (1) For use with non-illuminated operator styles.
- (2) For use with pilot light operator style (Code P).
- (3) For use with illuminated push button only.
- (4) For through-feed enclosure, selected conduit entry is supplied for both bottom and top entry.



# Push Button Units

## Non-illuminated – Flush

800G - F - EX  
           a      b      c



| a                     |                | b     |  | c                      |                    |
|-----------------------|----------------|-------|--|------------------------|--------------------|
| Operator Construction |                | Color |  | Ratings/Certifications |                    |
| Code                  | Description    | Code  | Description                              | Code                   | Description        |
| F                     | Flush operator | Blank | Multi-color insert packet <sup>(1)</sup> | EX                     | ATEX, IECEx Zone 1 |

(1) Includes white, black, green, red, and yellow inserts.

## Double Push Button, Non-illuminated – Flush

800G - U 2FX - EX  
           a          b      c



| a                   |   | b                      |                    |
|---------------------|---|------------------------|--------------------|
| Base <sup>(1)</sup> |   | Ratings/Certifications |                    |
| Code                | Description   | Code                   | Description        |
| U                   | Curved base for use with Bul. 800G enclosures       | EX                     | ATEX, IECEx Zone 1 |
| V                   | Flat base for use with customer provided enclosures |                        |                    |

(1) Includes black, green, red, yellow, and white color inserts.

## Illuminated – Flush

800G - LF 3 - EX  
           a      b      c



| a                     |                            | b     |             | c                      |                    |
|-----------------------|----------------------------|-------|-------------|------------------------|--------------------|
| Operator Construction |                            | Color |             | Ratings/Certifications |                    |
| Code                  | Description                | Code  | Description | Code                   | Description        |
| LF                    | Illuminated flush operator | 1     | White       | -EX                    | ATEX, IECEx Zone 1 |
|                       |                            | 3     | Green       |                        |                    |
|                       |                            | 4     | Red         |                        |                    |
|                       |                            | 5     | Yellow      |                        |                    |
|                       |                            | 6     | Blue        |                        |                    |

## Mushroom – Non-illuminated and Key Release



800G - M 2 - EX  
           a      b      c

| a              |                            | b                  |  |
|----------------|----------------------------|--------------------|--|
| Operator Style |                            | Color/Feature      |  |
| Code           | Description                | Code               | Description  |
| M              | Momentary                  | 2                  | Black with black bezel                               |
| MP             | Push-pull <sup>(1)</sup>   | E                  | Red E-stop with yellow bezel and printing on head    |
| MK             | Key release <sup>(1)</sup> | E99 <sup>(2)</sup> | Red E-stop with yellow bezel and no printing on head |

(1) Only available in E-stop, code E from Table b.  
 (2) Only valid with MP operator style.

| c                      |                    |
|------------------------|--------------------|
| Ratings/Certifications |                    |
| Code                   | Description        |
| EX                     | ATEX, IECEx Zone 1 |

## Key Release

800G - K 14 - EX  
           a      b      c



| a              |                         | b                |   |
|----------------|-------------------------|------------------|---|
| Operator Style |                         | Locking Position |   |
| Code           | Description             | Code             | Description   |
| K              | Key release push button | 14               | Lockable in initial position; key removal in initial position     |
|                |                         | 16               | Lockable in both positions; key removal in both positions         |
|                |                         | 24               | Lockable in depressed position; key removal in depressed position |

| c                      |                    |
|------------------------|--------------------|
| Ratings/Certifications |                    |
| Code                   | Description        |
| EX                     | ATEX, IECEx Zone 1 |

# Selector Switch Units

## Knob and Key Operated



Knob Selector Switch (2- pos.)  
Cat. No. 800G-SM2-EX



Knob Selector Switch (3-pos.)  
Cat. No. 800G-SM3-EX



Key Operated Switch (2-pos.)  
Cat. No. 800G-KSM23H-EX



Key Operated Switch (3-pos.)  
Cat. No. 800G-KSM33H-EX

**Table 48 - Two-position Target Table**

| Contact Type |   |   |
|--------------|---|---|
| N.O.         | 0 | X |
| N.C.         | X | 0 |

**Table 49 - Three-position Target Table**

| Contact Type | Pos. on Latch or Base |   |   |   |
|--------------|-----------------------|---|---|---|
| N.O.         | Top                   | 0 | 0 | X |
|              | Bottom                | X | 0 | 0 |
| N.C.         | Top                   | X | X | 0 |
|              | Bottom                | 0 | X | X |

800G - S M3 - EX  
a b c d e

| a              |              |
|----------------|--------------|
| Operator Style |              |
| Code           | Description  |
| S              | Knob         |
| KS             | Key operated |

| b                          |   |
|----------------------------|---|
| No. of Positions/Functions |   |
| Code                       | Description   |
| M2                         | Two-position maintained                                 |
| B3                         | Three-position spring return left and right to center   |
| L3                         | Three-position spring return left to center             |
| M3                         | Three-position maintained                               |
| R2                         | Two-position spring return right to left <sup>(3)</sup> |
| R3                         | Three-position spring return right to center            |

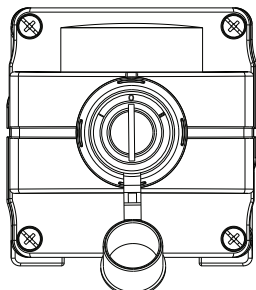
| c           |                             |
|-------------|-----------------------------|
| Key Removal |                             |
| Code        | Description                 |
| Blank       | For knob selector switches  |
| 1           | Left <sup>(3)</sup>         |
| 2           | Right <sup>(3)</sup>        |
| 3           | All <sup>(3)</sup>          |
| 4           | Center <sup>(3)</sup>       |
| 5           | Left/center <sup>(3)</sup>  |
| 6           | Left/right <sup>(3)</sup>   |
| 7           | Right/center <sup>(3)</sup> |

| d                            |  |
|------------------------------|--|
| Knob Position <sup>(1)</sup> |  |
| Code                         | Description  |
| Blank                        | For latch mount or base mount in horizontal Bulletin 800G enclosure <sup>(2)</sup> |
| H                            | For base mount in vertical Bulletin 800G enclosure                                 |

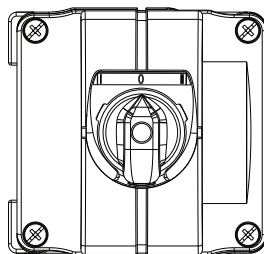
| e                      |                    |
|------------------------|--------------------|
| Ratings/Certifications |                    |
| Code                   | Description        |
| EX                     | ATEX, IECEx Zone 1 |

(1) See [Figure 1](#).  
 (2) Only available with knob selector (code S from Table a).  
 (3) Only available with key selector (code KS from Table a).

**Figure 1 - Enclosure Orientation**



Vertical Enclosure Orientation



Horizontal Enclosure Orientation

# Pilot Lights



Cat. No. 800G-P1-EX

800G -  P   3  - EX  
          a      b      c

| a              |             |
|----------------|-------------|
| Operator Style |             |
| Code           | Description |
| P              | Pilot light |

| b          |             |
|------------|-------------|
| Lens Color |             |
| Code       | Description |
| 1          | White       |
| 3          | Green       |
| 4          | Red         |
| 5          | Yellow      |
| 6          | Blue        |

| c                      |                    |
|------------------------|--------------------|
| Ratings/Certifications |                    |
| Code                   | Description        |
| EX                     | ATEX, IECEx Zone 1 |

## Back-of-panel Components

### Latch and Base Mount Contact Block

800G -  $\frac{XLS}{a}$   $\frac{A}{b}$  -  $\frac{EX}{c}$



Base Mount  
Cat. No. 800G-XBM-EX



Latch Mount Screw Termination  
Cat. No. 800G-XLSA-EX

| a                        |  |
|--------------------------|--|
| Contact Block/Latch Type |  |
| Code                     | Description                                      |
| XB                       | Base mount                                       |
| XLS                      | Latch mount with screw termination               |
| XLC3 (1)                 | Latch mount with 3 m (9.84 ft) cable termination |

(1) Product has been discontinued since November 2021.

| b                     |                 |
|-----------------------|-----------------|
| Contact Configuration |                 |
| Code                  | Description     |
| A                     | 1 N.O. - 1 N.C. |
| M                     | 2 N.O.          |
| N                     | 2 N.C.          |

| c                      |                    |
|------------------------|--------------------|
| Ratings/Certifications |                    |
| Code                   | Description        |
| EX                     | ATEX, IECEx Zone 1 |

### Latch and Base Mount Power Module

800G -  $\frac{DB}{a}$   $\frac{G}{b}$  -  $\frac{EX}{c}$



Base Mount  
Cat. No. 800G-DBR-EX



Latch Mount Screw Termination  
Cat. No. 800G-DLSG-EX

| a                           |  |
|-----------------------------|--|
| Power Module/Latch Type (1) |  |
| Code                        | Description                                      |
| DB                          | Base mount                                       |
| DLS                         | Latch mount with screw termination               |
| DLC3 (2)                    | Latch mount with 3 m (9.84 ft) cable termination |

| b     |             |
|-------|-------------|
| Color |             |
| Code  | Description |
| W     | White       |
| G     | Green       |
| R     | Red         |
| Y     | Yellow      |
| B     | Blue        |

| c                      |                    |
|------------------------|--------------------|
| Ratings/Certifications |                    |
| Code                   | Description        |
| EX                     | ATEX, IECEx Zone 1 |

(1) Bulletin 800G LED modules can only be powered from dry contact circuits (with no leakage current in the OFF state).

(2) Product has been discontinued since November 2021.

### Power Module with Contact Block

800G -  $\frac{DB}{a}$   $\frac{G}{b}$   $\frac{XK}{c}$  -  $\frac{EX}{d}$



Base Mount  
Cat. No. 800G-DBGXK-EX



Latch Mount  
Cat. No. 800G-DLSGXK-EX

**IMPORTANT** For use with illuminated push button.

| a                           |  |
|-----------------------------|--|
| Power Module/Latch Type (1) |  |
| Code                        | Description                                      |
| DB                          | DB Base  |
| DLS                         | Latch mount with screw termination               |
| DLC3 (2)                    | Latch mount with 3 m (9.84 ft) cable termination |

| b     |             |
|-------|-------------|
| Color |             |
| Code  | Description |
| W     | White       |
| G     | Green       |
| R     | Red         |
| Y     | Yellow      |
| B     | Blue        |













| c                     |             |
|-----------------------|-------------|
| Contact Configuration |             |
| Code                  | Description |
| XK                    | 1 N.O.      |
| XL                    | 1 N.C.      |

| d                      |                    |
|------------------------|--------------------|
| Ratings/Certifications |                    |
| Code                   | Description        |
| EX                     | ATEX, IECEx Zone 1 |

(1) Bulletin 800G LED modules can only be powered from dry contact circuits (with no leakage current in the OFF state).

(2) Product has been discontinued since November 2021.









## Accessories

|   | Description  | Pkg Qty | Cat. No.   |
|---|--|---------|------------|
|    | M20 plastic cable gland kit (6...12 mm [0.24...0.47 in.]) with earth bracket <sup>(1)</sup>  | 1       | 800G-ACGK1 |
|    | M25 plastic cable gland kit (13...18 mm [0.51...0.71 in.]) with earth bracket <sup>(1)</sup> | 1       | 800G-ACGK3 |
|    | M20 metal cable gland kit with earth plate   | 1       | 800G-ACGK5 |
|    | M25 metal cable gland kit with earth plate   | 1       | 800G-ACGK6 |
|    | Earth bracket<br>Compatible with plastic cable glands  | 10      | 800G-AEB   |
|    | Earth plate (1 M20 x 1.5)<br>Compatible with metal cable glands                              | 10      | 800G-AEP1  |
|    | Earth plate (2 M20 x 1.5)<br>Compatible with metal cable glands                              | 10      | 800G-AEP2  |
|    | Earth plate (M25 x 1.5)<br>Compatible with metal cable glands                                | 10      | 800G-AEP3  |
|   | Panel mount cover <sup>(2)</sup>   | 1       | 800G-APMC  |
|  | M20 stopping plug <sup>(3)</sup>   | 10      | 800G-AM20P |
|  | M25 stopping plug <sup>(3)</sup>   | 10      | 800G-AM25P |
|  | Mounting nut   | 10      | 800G-AMN1  |

(1) Plastic cable gland kits are compatible with 800G "EX" solutions only; they cannot be used with cULus solutions for Class I Division 2 hazardous areas since they do not have cULus certification.

(2) Secure to Bulletin 800G "EX" panel mount back-of-panel components to attain IP67 rating.

(3) When stopping plug is removed from enclosure, you must use a cable gland or conduit hub that maintains all hazardous ratings, temperature ratings, product certifications, and installation requirements for the industrial environment.

|   | Description   | Pkg Qty | Cat. No.   |
|---|---|---------|------------|
|                          | 10-printed push button inserts:   |         |            |
|   | Green "START"   | 10      | 800G-APC1  |
|   | Green "ON"  | 10      | 800G-APC2  |
|   | Green "I"   | 10      | 800G-APC3  |
|   | Red "STOP"  | 10      | 800G-APC4  |
|   | Red "OFF"   | 10      | 800G-APC5  |
|   | Red "O"   | 10      | 800G-APC6  |
|   | White "I"   | 10      | 800G-APC7  |
|   | White "II"  | 10      | 800G-APC8  |
|   | Black "O"   | 10      | 800G-APC9  |
|                          | Mounting ring wrench  | 10      | 800G-AW1   |
|                          | 90 mm (3.54 in.) yellow legend plate for E-stop   | 10      | 800G-AEL90 |
|                          | Yellow E-stop adhesive legend plate   | 100     | 800G-AELE  |
|                         | White color cap insert  | 10      | 800G-ACC1  |
|   | Black color cap insert  | 10      | 800G-ACC2  |
|   | Green color cap insert  | 10      | 800G-ACC3  |
|   | Red color cap insert  | 10      | 800G-ACC4  |
|   | Yellow color cap insert   | 10      | 800G-ACC6  |
|                        | Contact block and power module ID blank label   | 10      | 800G-ACC7  |
| <br>Cat. No. 800G-ALGB | Locking cover with 30 mm (1.18 in.) hole for securement by bezel<br>Compatible with illuminated and non-illuminated push buttons and selector switches. |         | 800G-ALCB  |
|   | Locking guard with 30 mm (1.18 in.) hole for securement by bezel<br>Compatible with E-stop push/pull operators.   |         | 800G-ALGB  |
|                        | Black hole plug   |         | 800G-N2    |

# Legend Plates

800G - 11 S E 166 K  
           a      b      c      d      e

| a    |                                       |
|------|---------------------------------------|
| Type |                                       |
| Code | Description                           |
| 11   | Legend plate and frame <sup>(1)</sup> |
| 17   | Legend plate only                     |

| b            |  |
|--------------|--|
| Insert Color |  |
| Code         | Description                              |
| S            | Silver background with black legend text |

| c        |                  |
|----------|------------------|
| Language |                  |
| Code     | Description      |
| E        | English          |
| F        | French           |
| G        | German           |
| T        | Italian          |
| S        | Spanish          |
| U        | Universal symbol |

(1) Legend frame is not compatible with 800G-Mx mushroom operators.

| d                     |   |
|-----------------------|---|
| Legend Identification |   |
| Code                  | Description   |
|                       | See <a href="https://www.rockwellautomation.com/en-us/products/hardware/allen-bradley/push-buttons-and-signaling-devices/haz-loc-push-buttons/800g-hazloc-push-buttons.html#selection">https://www.rockwellautomation.com/en-us/products/hardware/allen-bradley/push-buttons-and-signaling-devices/haz-loc-push-buttons/800g-hazloc-push-buttons.html#selection</a> |

| e    |                 |
|------|-----------------|
| Type |                 |
| Code | Description     |
| K    | 0.080 size font |



Legend Frame  
 Cat. No. 800G-110

Adhesive Back Legend Plate  
 Cat. No. 800G-17SE100

## Special Engraving

Besides the standard text and symbols that are listed on <https://www.rockwellautomation.com/en-us/products/hardware/allen-bradley/push-buttons-and-signaling-devices/haz-loc-push-buttons/800g-hazloc-push-buttons.html#selection>, special legend plates are readily available.

To order:

- Select font code from the following table.
- Specify desired text (see the following table for restrictions on characters and number of lines).

| Type of Legend | Size                           | Font Size | Font Code | Approximate Size | Characters/Line, Max | Number of Lines, Max | Example                  | Example (Legend Plate with Frame) |
|----------------|--------------------------------|-----------|-----------|------------------|----------------------|----------------------|--------------------------|-----------------------------------|
| Legend Plate   | 30 x 4 mm<br>(1.18 x 0.16 in.) | Small     | K         | SAMPLE           | 19                   | 1                    | 800G-17SE100K<br>STARTER | 800G-11SE100K STARTER             |

800G - AEL S LINE 1 , LINE 2 , LINE 3  
 a b c d e

| a            |  |
|--------------|--|
| Insert Color |  |
| Code         | Description  |
| AEL          | Enclosure identification label with silver background and black text |

| b         |                |
|-----------|----------------|
| Font Size |                |
| Code      | Description    |
| S         | 0.10 size font |
| L         | 0.14 size font |

| c, d, e         |  |
|-----------------|--|
| Customized Text |  |
| Code            | Description  |
|                 | Example of customer specified text that is based on max characters per line and max number of lines. When separated by a comma, the following text is engraved on the next line. |



Adhesive Back Legend Plate  
 Cat. No. 800G-17SE100

### Special Engraving

To order:

- Select font code from the following table.
- Specify desired text (see the following table for restriction on characters and number of lines).

| Type of Legend     | Size                            | Font Size | Font Code | Approximate Size | Characters/Line, Max | Number of Lines, Max | Example                    |
|--------------------|---------------------------------|-----------|-----------|------------------|----------------------|----------------------|----------------------------|
| Enclosure ID Label | 50 x 15 mm<br>(1.97 x 0.59 in.) | Standard  | S         | SAMPLE           | 25                   | 3                    | 800G-AELS MACHINE 1, L-R27 |
|                    |                                 | Large     | L         | SAMPLE           | 19                   | 2                    | 800G-AELL MACH 1           |

## Markings

Table 50 - Universal

| Marking | Suffix Number | Marking  | Suffix Number |
|---------|---------------|----------|---------------|
| ← - - → | U226          | I-O-II   | U234          |
| ↑ - ↓   | U227          | I-II-III | U240          |
| 0       | U228          | ↑        | U241          |
| I       | U229          | ←        | U242          |
| II      | U230          | III      | U249          |
| I-O     | U232          | ↓        | U244          |
| I-II    | U233          | →        | U245          |
| 0-1-2   | U285          | I-O-I    | U282          |

Table 51 - English

| Marking            | Suffix Number | Marking         | Suffix Number |
|--------------------|---------------|-----------------|---------------|
| One-word Marking   |               |                 |               |
| AUTO               | E101          | OFF             | E163          |
| CLOSE              | E107          | ON              | E166          |
| DOWN               | E110          | OPEN            | E170          |
| EMERGENCY STOP     | E112          | OUT             | E173          |
| FAULT              | E113          | POWER ON        | E178          |
| FAST               | E114          | PUSH-TO-TEST    | E181          |
| FORWARD            | E120          | RAISE           | E182          |
| HAND               | E126          | RESET           | E186          |
| HIGH               | E129          | REVERSE         | E188          |
| IN                 | E132          | RIGHT           | E191          |
| INCH               | E134          | RUN             | E193          |
| JOG                | E138          | SLOW            | E201          |
| LEFT               | E145          | START           | E208          |
| LOW                | E148          | STOP            | E212          |
| LOWER              | E152          | UP              | E223          |
| Two-word Marking   |               |                 |               |
| FOR-REV            | E253          | LEFT-RIGHT      | E146          |
| HAND-AUTO          | E127          | OFF-ON          | E165          |
| HIGH-LOW           | E130          | OPEN-CLOSE      | E171          |
| INCH-REVERSE       | E135          | RAISE-LOWER     | E183          |
| JOG-FOR            | E255          | SLOW-FAST       | E204          |
| JOG-REV            | E256          | START-STOP      | E211          |
| JOG-RUN            | E142          | UP-DOWN         | E224          |
| Three-word Marking |               |                 |               |
| FOR-STOP-REV       | E254          | LOW-OFF-HIGH    | E150          |
| FOR-OFF-REV        | E261          | RAISE-OFF-LOWER | E184          |
| HAND-OFF-AUTO      | E128          | SLOW-OFF-FAST   | E205          |
| JOG-STOP-RUN       | E144          | SLOW-OFF-START  | E207          |
|                    |               | HAND-O-AUTO     | E283          |

Table 52 - French

| Marking             | Suffix Number | Marking      | Suffix Number |
|---------------------|---------------|--------------|---------------|
| Auto                | F101          | Monter       | F182          |
| Fermer              | F107          | Arrière      | F188          |
| Descendre           | F110          | Droit        | F191          |
| Panne               | F113          | Régler       | F198          |
| Rapide              | F114          | Lent         | F201          |
| Avant               | F120          | Marche-Arrêt | F211          |
| Avant-Arrêt-Arrière | F122          | Hors Circuit | F244          |
| Avant-Arrière       | F124          | En Circuit   | F245          |
| Manuel              | F126          | Hors         | F246          |
| Manuel-Auto         | F127          | En           | F247          |
| Manuel-Arrêt-Auto   | F128          | Hors-En      | F248          |
| Haut                | F129          | Hors Manuel  | F249          |
| Gauche              | F145          | En Manuel    | F250          |
| Bas                 | F148          | Arrêt-Manuel | F251          |
| Bas-Arrêt-Haut      | F150          | Demar. Man.  | F252          |
| Arrêt               | F163          | Av-Hors-Arr  | F253          |
| Arrêt-Marche        | F165          | Surcharge    | F254          |
| Marche              | F166          | M Forcee     | F284          |
| Ouvrir              | F170          |              |               |

Table 53 - German

| Marking        | Suffix Number | Marking          | Suffix Number |
|----------------|---------------|------------------|---------------|
| Zu             | G107          | Niedrig          | G148          |
| Ab             | G110          | Niedrig-Aus-Hoch | G150          |
| Störung        | G113          | Senken           | G152          |
| Schnell        | G114          | Aus              | G163          |
| Vor            | G120          | Aus-Ein          | G165          |
| Vor-Aus-Zurück | G122          | Ein              | G166          |
| Vor-Zurück     | G124          | Heben            | G182          |
| Hand           | G126          | Zurück           | G188          |
| Hand-Auto      | G127          | Rechts           | G191          |
| Hand-Aus-Auto  | G128          | Langsam          | G201          |
| Hoch           | G129          | Auf              | G223          |
| Links          | G145          | Betrieb          | G243          |



## Markings, Continued

Table 54 - Italian

| Marking                | Suffix Number | Marking        | Suffix Number |
|------------------------|---------------|----------------|---------------|
| Automatico             | T101          | Disinserito    | T163          |
| Chiudere               | T107          | Disins-Ins     | T165          |
| Discesa                | T110          | Inserito       | T166          |
| Disturbo               | T113          | Salita         | T182          |
| Rapido                 | T114          | Indietro       | T188          |
| Avanti                 | T120          | Destra         | T191          |
| Avanti-Disins-Indietro | T122          | Preparare      | T198          |
| Avanti-Indietro        | T124          | Lento          | T201          |
| Manuale                | T126          | Marcia         | T208          |
| Manuale-Auto           | T127          | Marcia-Arresto | T211          |
| Manuale-Disins-Auto    | T128          | Arresto        | T212          |
| Alto                   | T129          | Aprire         | T223          |
| Sinistra               | T145          | In Servizio    | T243          |
| Basso                  | T148          | Rotazione CW   | T246          |
| Basso-Disins-Alto      | T150          | Rotazione CCW  | T247          |
| Abbassare              | T152          | Emergenza      | T248          |

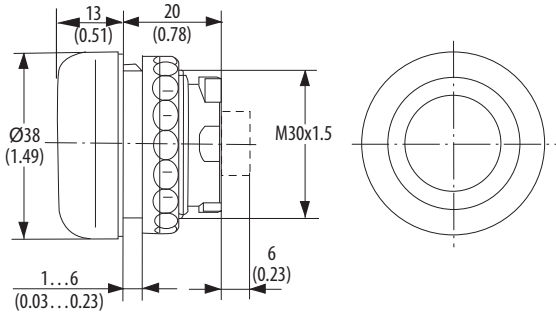
Table 55 - Spanish

| Marking               | Suffix Number | Marking       | Suffix Number |
|-----------------------|---------------|---------------|---------------|
| Cerrar                | S107          | Abrir         | S170          |
| Adelante              | S120          | Subida        | S182          |
| Adelante-Parada-Atrás | S123          | Atrás         | S188          |
| Adelante-Atrás        | S124          | Derecha       | S191          |
| Manual                | S126          | Marcha        | S208          |
| Manual-Auto           | S127          | Marcha-Parada | S211          |
| Izquierda             | S145          | Parada        | S212          |
| Bajada                | S152          | En Servicio   | S243          |

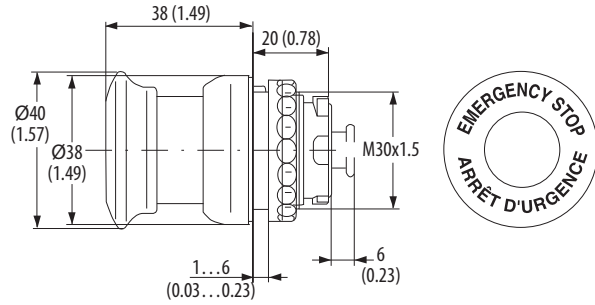
# Approximate Dimensions

**IMPORTANT** Drawings apply to both models (cULus and -Ex) unless otherwise noted.

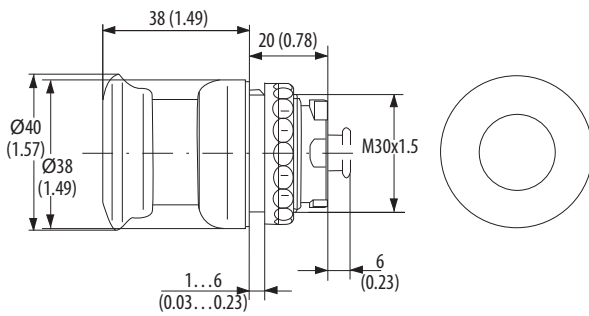
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



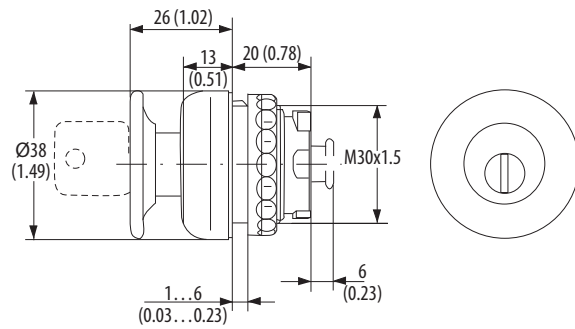
**Push Buttons**



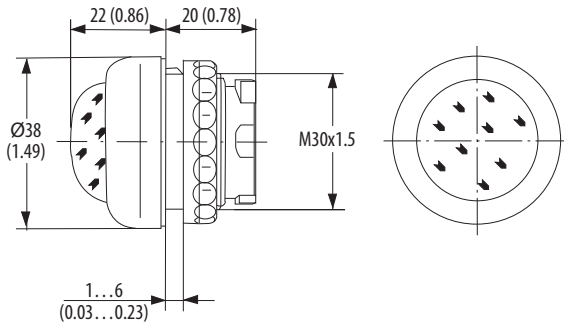
**E-stop/Push-pull Mushroom**



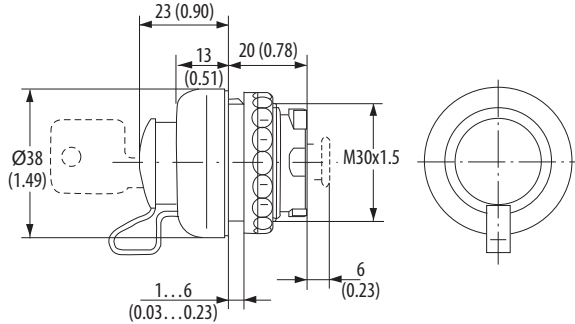
**Momentary Mushroom**



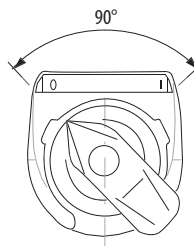
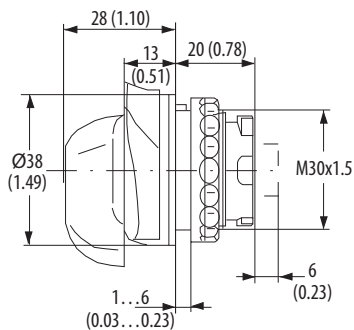
**Key Release Mushroom**



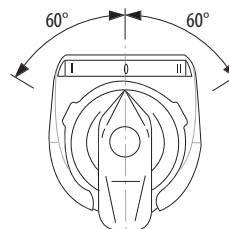
**Pilot Light**



**Key Release Push Button**



**Two-position**

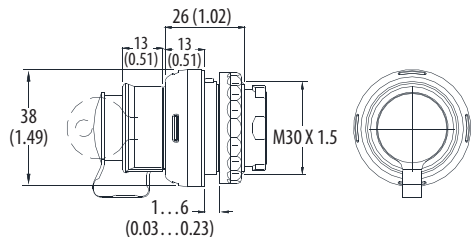


**Three-position**

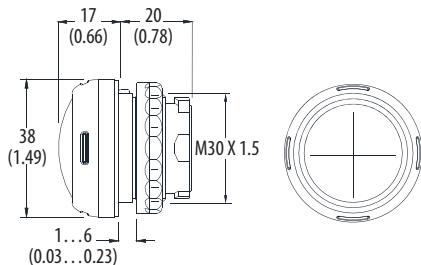
**Knob Selector Switch**

**IMPORTANT** Drawings apply to both models (cULus and -Ex) unless otherwise noted.

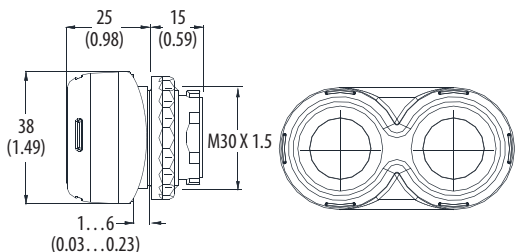
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



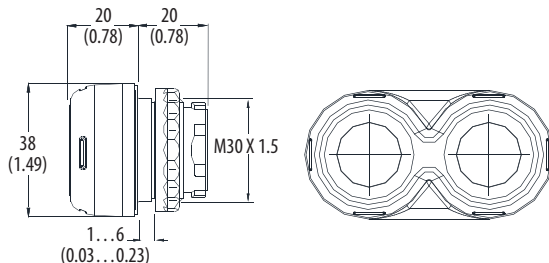
**Key Operated Selector Switch**



**Hole Plug**

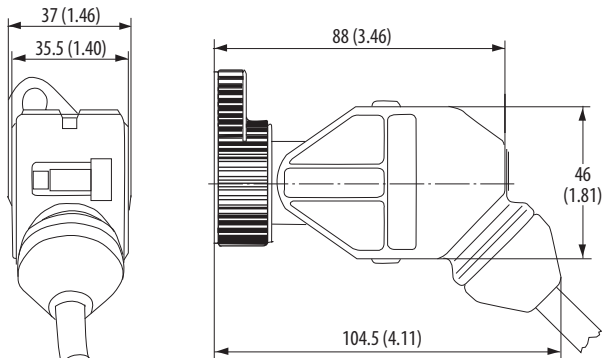


**Double Push Button –Curved Base**

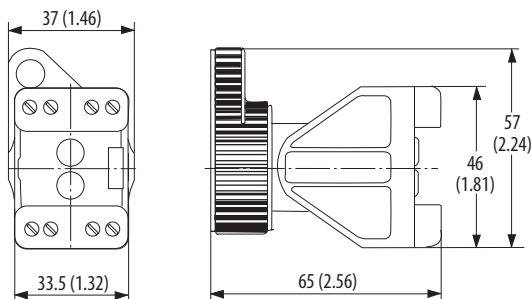


**Double Push Button –Flat Base**

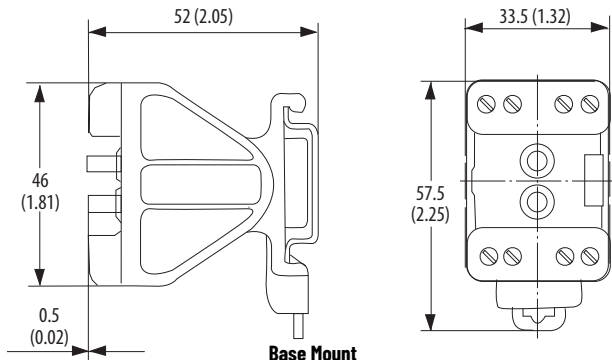
**Contact Block**



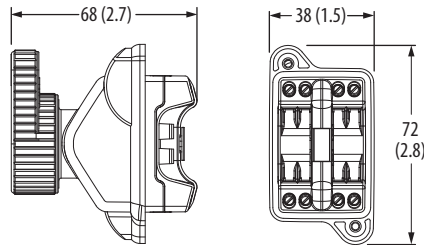
**Cable Termination  
(cULus models only)**



**Screw Termination  
(cULus models only)**



**Base Mount**

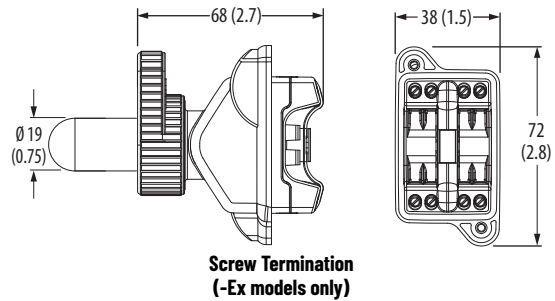
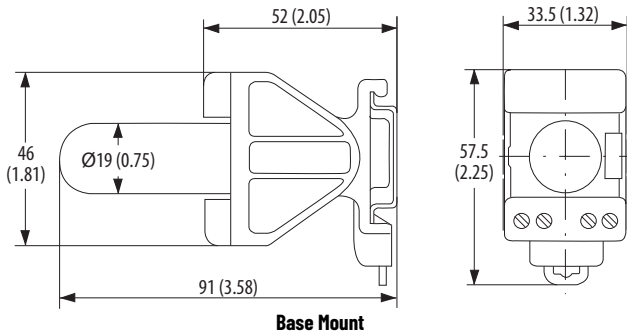
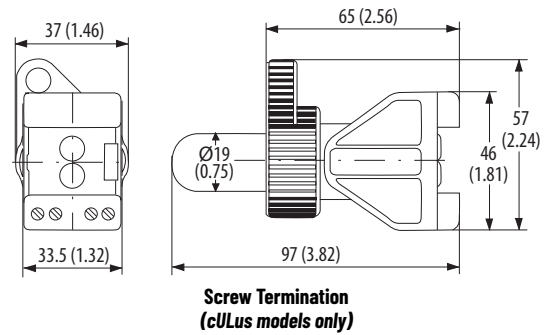
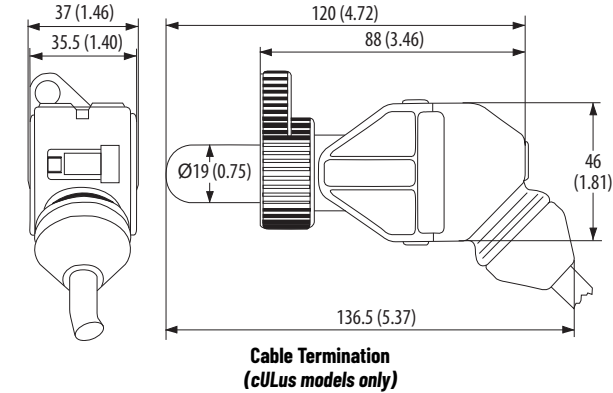


**Screw Termination  
(-Ex models only)**

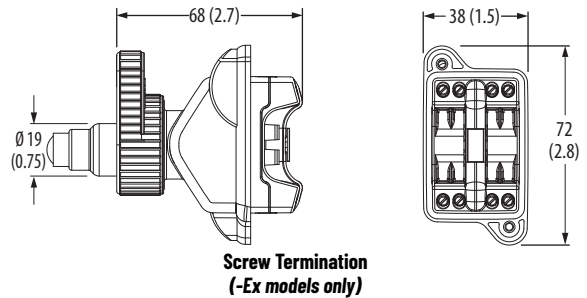
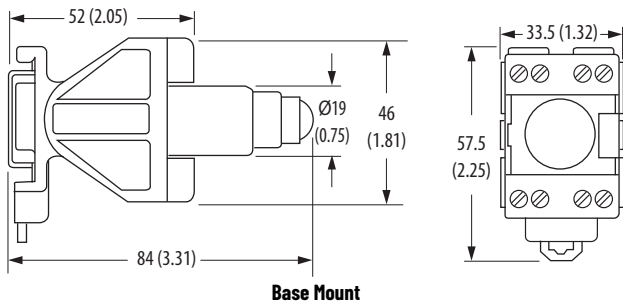
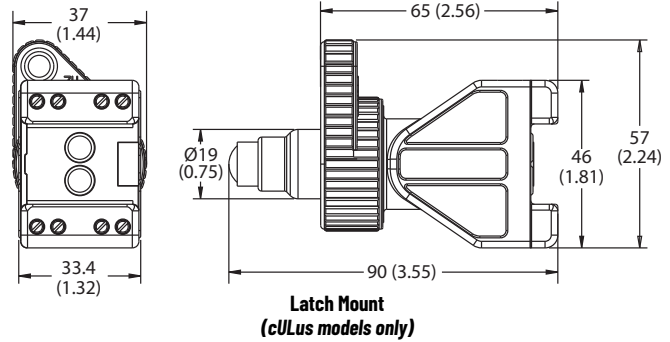
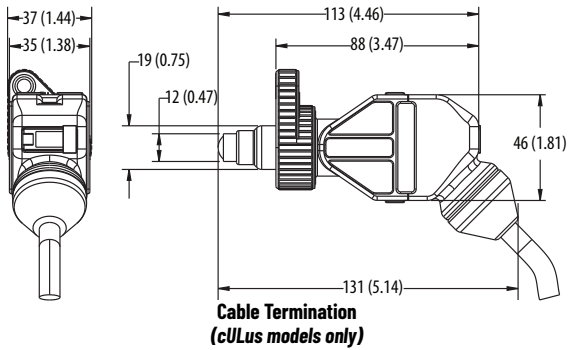
## Power Module

**IMPORTANT** Drawings apply to both models (cULus and -Ex) unless otherwise noted.

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



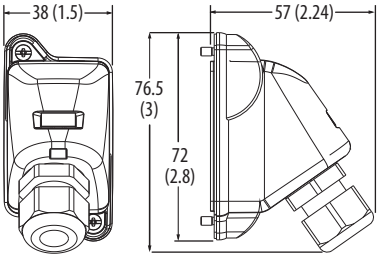
## Power Module with Contact Block



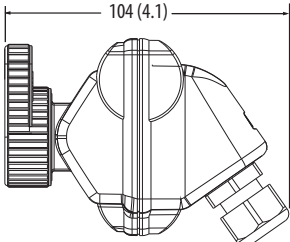
# Panel Mount Cover

**IMPORTANT** Drawings apply to both models (cULus and -Ex) unless otherwise noted.

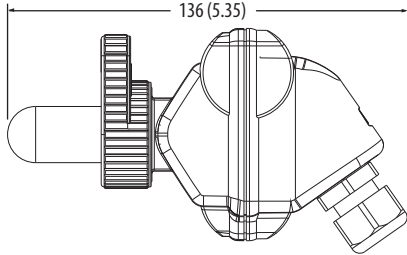
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



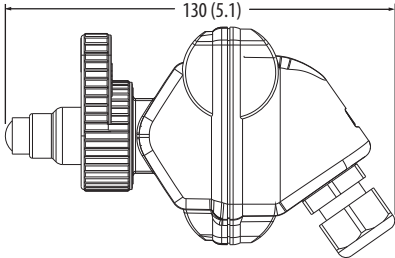
**Panel Mount Cover  
(-Ex models only)**



**Panel Mount Cover and Panel  
Mount Contact Block  
(-Ex models only)**



**Panel Mount Cover and Panel  
Mount Power Module  
(-Ex models only)**

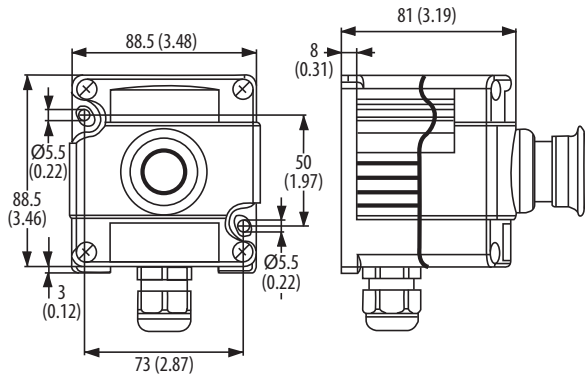


**Panel Mount Cover and Panel  
Mount Power Module with Contact Block  
(-Ex models only)**

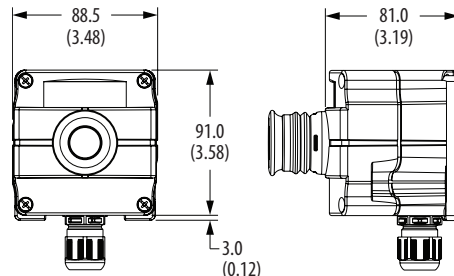
# Enclosures

**IMPORTANT** Drawings apply to both models (cULus and -Ex) unless otherwise noted.

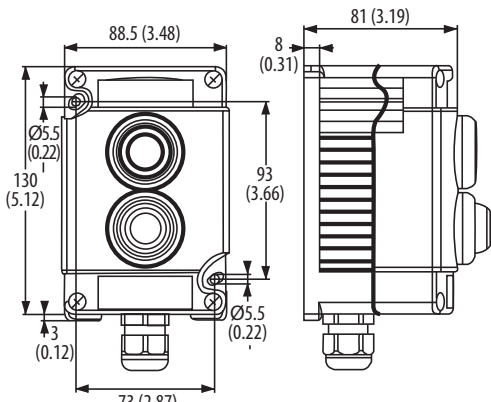
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



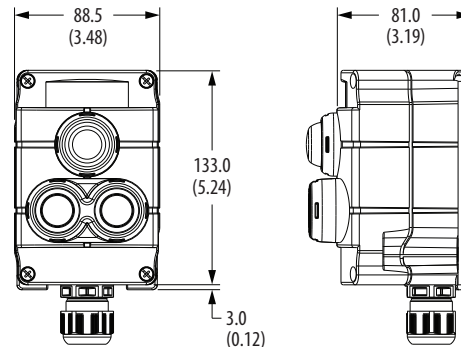
**Single Unit**  
*(cULus models only)*



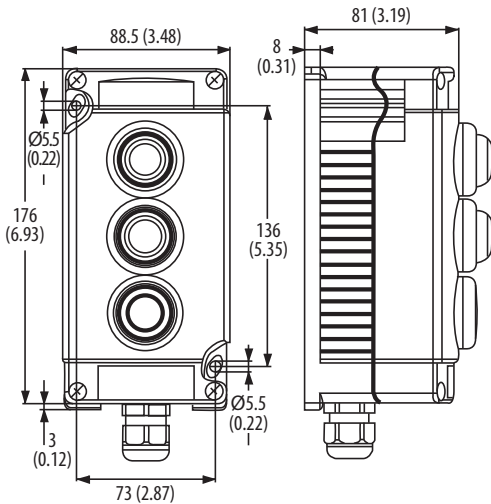
**Single Unit**  
*(-Ex models only)*



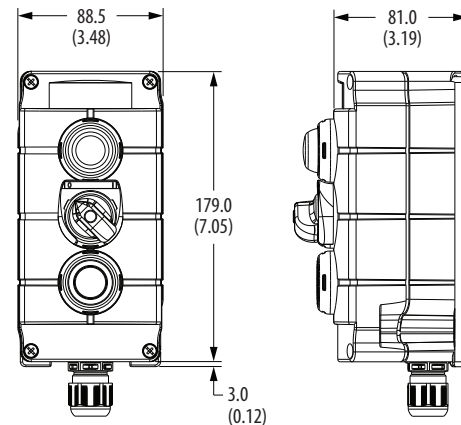
**Double Unit**  
*(cULus models only)*



**Double Unit**  
*(-Ex models only)*



**Triple Unit**  
*(cULus models only)*



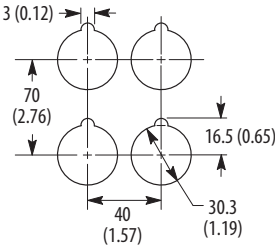
**Triple Unit**  
*(-Ex models only)*

# Enclosure Spacing and Mounting

**IMPORTANT** Drawings apply to both models (cULus and -Ex) unless otherwise noted.

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

**Vertical and Horizontal Spacing**



**Mounting Dimension**

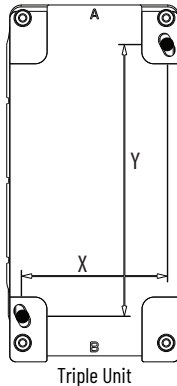
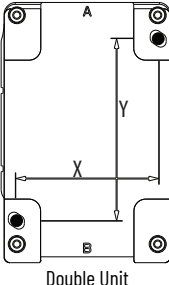
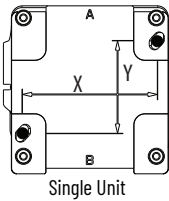
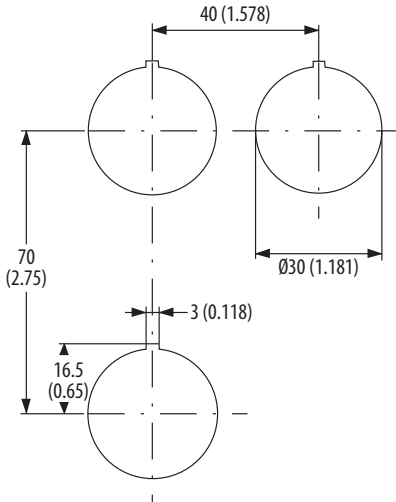


Table 56 -

| Units  | Hole Diameter [mm (in.)] | X (Width) [mm (in.)] | Y (Height) [mm (in.)] |
|--------|--------------------------|----------------------|-----------------------|
| Single | 5.5 (7/32)               | 73 (2-7/8)           | 50 (1-31/32)          |
| Double |                          |                      | 93 (3-21/32)          |
| Triple |                          |                      | 136 (5-23/64)         |

**Notes:**



## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation. You can view or download publications at [rok.auto/literature](http://rok.auto/literature).

| Resource   | Description   |
|--|---|
| 30 mm Push Button Specifications Technical Data, publication <a href="#">800-TD009</a>   | Provides specification information for Bulletin 800T/H push button products.  |
| UL Standards Listing for Industrial Control Products, publication <a href="#">CMPNTS-SR002</a>                                     | Assists original equipment manufacturers (OEMs) with construction of panels, to help ensure that they conform to the requirements of Underwriters Laboratories.   |
| American Standards, Configurations, and Ratings: Introduction to Motor Circuit Design, publication <a href="#">IC-AT001</a>        | Provides an overview of American motor circuit design based on methods that are outlined in the NEC.  |
| Industrial Components Preventive Maintenance, Enclosures, and Contact Ratings Specifications, publication <a href="#">IC-TD002</a> | Provides a quick reference tool for Allen-Bradley industrial automation controls and assemblies.  |
| Safety Guidelines for the Application, Installation, and Maintenance of Solid-state Control, publication <a href="#">SGI-1.1</a>   | Designed to harmonize with NEMA Standards Publication No. ICS 1.1-1987 and provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies incorporating solid-state components. |
| Industrial Automation Wiring and Grounding Guidelines, publication <a href="#">1770-4.1</a>  | Provides general guidelines for installing a Rockwell Automation industrial system.   |
| ProposalWorks™ configuration software, <a href="http://rok.auto/systemtools">rok.auto/systemtools</a>                              | Helps configure complete, valid catalog numbers and build complete quotes based on detailed product information.  |
| Rockwell Automation Global SCCR tool, <a href="http://rok.auto/sccr">rok.auto/sccr</a>   | Provides coordinated high-fault branch circuit solutions for motor starters, soft starters, and component drives.   |
| Product Certifications website, <a href="http://rok.auto/certifications">rok.auto/certifications</a>                               | Provides declarations of conformity, certificates, and other certification details.   |

# Rockwell Automation Support

Use these resources to access support information.

|   |   |  |
|---|---|--|
| <b>Technical Support Center</b>                         | Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates. | <a href="http://rok.auto/support">rok.auto/support</a>           |
| <b>Local Technical Support Phone Numbers</b>            | Locate the telephone number for your country.   | <a href="http://rok.auto/phonesupport">rok.auto/phonesupport</a> |
| <b>Technical Documentation Center</b>                   | Quickly access and download technical specifications, installation instructions, and user manuals.      | <a href="http://rok.auto/techdocs">rok.auto/techdocs</a>         |
| <b>Literature Library</b>                               | Find installation instructions, manuals, brochures, and technical data publications.                    | <a href="http://rok.auto/literature">rok.auto/literature</a>     |
| <b>Product Compatibility and Download Center (PCDC)</b> | Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.      | <a href="http://rok.auto/pcdc">rok.auto/pcdc</a>                 |

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