

# IEC Push Button Specifications

Bulletin Numbers 800F, 800FC, 800FD, 800B, 800MB, and 800MR

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## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

| Resource  | Description   |
|---|---|
| Industrial Automation Wiring and Grounding Guidelines, publication <a href="#">1770-4.1</a> | Provides general guidelines for installing a Rockwell Automation industrial system. |
| Product Certifications website, <a href="http://www.ab.com">http://www.ab.com</a>           | Provides declarations of conformity, certificates, and other certification details. |

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.



**Bulletin 800FP Plastic Operators**

- IP65/66, Type 4/4X/13
- Engineering grade thermoplastics
- Chemical-resistant for harsh environments



*Bul. 800FP Plastic Operators*

**Bulletin 800FM Metal Operators**

- IP65/66, Type 4/13
- Die-cast metal construction
- Chrome-plated



*Bul. 800FM Die-Cast Metal Operators*

**3-Across x 2-Deep Back-of-Panel (6 Circuits Max.)**

- Rugged snap-fit design for plastic or metal latch
- Stackable contact blocks
- Rotating collar for easy one-hand latch removal
- Color-coded contact block plungers for contact identification

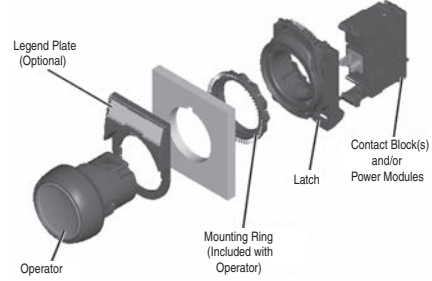


*Plastic Latch with Contact Block*



*Metal Latch with Contact Block*

**Assembly Overview**



## Specifications

## Front-of-Panel (Operators)★

| Description   |                   | Mechanical Ratings  |                             |
|---|-------------------|---|-----------------------------|
|   |                   | Plastic (Bulletin 800FP)  | Metal (Bulletin 800FM)      |
| Vibration (assembled to panel)                                |                   | Tested at 10...2000 Hz, 1.52 mm displacement (peak-to-peak) max./10 G max. for 3 hr duration, no damage |                             |
| Shock   |                   | Tested at 1/2 cycle sine wave for 11 ms; no damage at 100 G   |                             |
| Degree of protection†   |                   | IP65/66 (Type 3/3R/4/4X/12/13)  | IP65/66 (Type 3/3R/4/12/13) |
| Mechanical durability per EN 60947-5-1 (Annex C)              | 10 000 000 Cycles | Momentary push buttons, momentary mushroom  |                             |
|   | 1 000 000 Cycles  | Multi-function, selector switch, key selector switch, selector jog, SensEject™ key selector switch      |                             |
|   | 500 000 Cycles    | Non-illuminated push-pull E-stop§   |                             |
|   | 300 000 Cycles    | Twist-to-release E-stop, illuminated push-pull E-stop§, alternate action push buttons                   |                             |
|   | 100 000 Cycles    | Potentiometer, toggle switch  |                             |
| Operating forces (typical with one contact block)             |                   | Flush/extended = 5 N, E-stop = 36 N<br>Mushroom = 9 N   |                             |
| Operating torque (typical application with one contact block) |                   | Selector switch = 0.25 N•m (2.2 lb•in)  |                             |
| Mounting torque   | Plastic           | 1.7 N•m (15 lb•in)  |                             |
|   | Metal             | 4.4 N•m (40 lb•in)  |                             |
| Environmental   |                   |   |                             |
| Temperature range (operating)                                 |                   | -25...+70 °C (-13...+158 °F)✱   |                             |
| Temperature range (short term storage)                        |                   | -40...+85 °C (-40...+185 °F)  |                             |
| Humidity  |                   | 50...95% RH from 25...60 °C (77...140 °F)   |                             |

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

† Momentary mushroom operators are IP65. Plastic keyed operators are IP66, Type 4/13; not Type 4X.

§ Limit of four contact blocks max. for these devices.

✱ Operating temperatures below 0 °C (32 °F) are based on the absence of freezing moisture and liquids, UL Recognized to 55 °C (131 °F) - Incandescent module max. 40 °C (104 °F).

## Standards Compliance and Certifications

|                                  |  |
|----------------------------------|--|
| Certifications                   | UR/UL, CSA, CCC, CE  |
| Standards Compliance — CE Marked | NEMA ICS-5; UL 508, EN ISO 13850, EN 60947-1, EN 60947-5-1, EN 60947-5-5 |
| Terminal Identification          | EN/IEC 60947-1   |
| Shipping Approvals               | ABS  |
| RoHS                             | ✓  |

Back-of-Panel Components★

|  |                              | Electrical Ratings  |                          |                      |
|--|------------------------------|---|--------------------------|----------------------|
|  |                              | Screw Termination   | Spring Clamp Termination |                      |
| Standard contact block ratings                   |                              | A600, Q600<br>600V AC   | A300, Q300<br>300V AC    |                      |
| Low voltage contact block ratings‡               |                              | AC 15, DC 13 to IEC/EN 60947-5-1 and UL 508, 17V, 5 mA min.                                       |                          |                      |
|  |                              | 5V, 1 mA DC min.<br>C300, R150, AC 15, DC 13 to EN 60947-5-1 and UL 508                           |                          |                      |
| Nominal Voltage                                  |                              | Range   | Current Draw             | Frequency            |
| LED Module Ratings                               | 24...120V AC/DC              | 20...132V AC/DC   | 15 mA (AC), 12 mA (DC)   | 50/60 Hz, DC         |
|  | 24V AC                       | 10...29V AC   | 31 mA                    | 50/60 Hz             |
|  | 24V DC                       | 10...30V DC   | 24 mA                    | DC                   |
|  | 120V AC<br>240V AC           | 102...132V AC<br>204...264V AC  | 6 mA<br>6 mA             | 50/60 Hz<br>50/60 Hz |
| Thermal current                                  |                              | 10 A max. enclosed (40 °C ambient) to UL508, EN 60947-5-1   |                          |                      |
| Insulation voltage (U <sub>i</sub> )             |                              | Screw terminal = 690V, spring-clamp = 300V  |                          |                      |
| Wire capacity (screw terminal)§                  |                              | #18...12 AWG (0.75...2.5 mm <sup>2</sup> )<br>Max. (2) #14 AWG or (1) #12 AWG                     |                          |                      |
| Wire capacity (spring-clamp terminal)            |                              | #18...14 AWG (0.75...1.5 mm <sup>2</sup> ) One per spring clamp, two spring clamps per terminal   |                          |                      |
| Recommended tightening torque on screw terminals |                              | 0.7...0.9 N•m (6...8 lb•in)   |                          |                      |
| Dielectric strength (minimum)                    |                              | 2500V for one minute  |                          |                      |
| External short circuit protection                | Standard blocks              | 10 A type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class C to UL 248-4) |                          |                      |
|  | Low voltage contact blocks   | 6 A type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class C to UL 248-4)  |                          |                      |
| Electrical shock protection                      |                              | Finger-safe conforming to IP2X  |                          |                      |
|  |                              | Mechanical Ratings  |                          |                      |
| Vibration (assembled to panel)                   |                              | Tested at 10...2000 Hz, 1.52 mm displacement (peak-to-peak) max./10 G max. 6 hr                   |                          |                      |
| Shock  |                              | Tested at 1/2 cycle sine wave for 11 ms and no damage at 100 G max.                               |                          |                      |
| Contact durability per EN 60947-5-1 (Annex C)    |                              | 10 000 000 cycles   |                          |                      |
| Contact operation                                | N.O.                         | Slow double make and break  |                          |                      |
|  | N.C. & S.M.C.B.              | Slow double make and break —<br>positive opening<br>⊖   |                          |                      |
|  | N.O.E.M.                     | Double break / double make, early make  |                          |                      |
|  | N.C.L.B.                     | Double break / double make, late break —<br>positive opening<br>⊖                                 |                          |                      |
|  | N.C.E.B.                     | Double break / double make, early break —<br>positive opening<br>⊖                                |                          |                      |
| Push button travel to change electrical state    | N.C. and N.O.E.M.            | 1.5 mm (0.060 in.)  |                          |                      |
|  | N.O. and N.C.L.B.            | 2.5 mm (0.1 in.)  |                          |                      |
| Operating forces (typical)                       | Single circuit contact block | 3.4 N   |                          |                      |
|  | Dual circuit contact block   | 5...6.5 N   |                          |                      |
|  |                              | Illumination  |                          |                      |
| LED Dominant Wavelength                          | Green                        | 525 nm  |                          |                      |
|  | Red                          | 629 nm  |                          |                      |
|  | White                        | —   |                          |                      |
| LED Luminous Intensity                           | Green                        | 780 mcd   |                          |                      |
|  | Red                          | 780 mcd   |                          |                      |
|  | White                        | 360 mcd   |                          |                      |
| Incandescent maximum wattage                     |                              | 2.6 W   |                          |                      |
|  |                              | Materials   |                          |                      |
| Springs  |                              | Stainless steel and zinc coated music wire  |                          |                      |
| Electrical contacts                              | Standard                     | Silver-nickel   |                          |                      |
|  | Low voltage                  | Gold-plated over silver   |                          |                      |
| Terminals  | Screw                        | Brass   |                          |                      |
|  | Spring-clamp                 | Silver-plated brass   |                          |                      |

★ Performance Data — see note on page 3.

‡ Low voltage contacts are recommended for applications below 17V, 5 mA.

§ Wires less than #18 AWG (0.75 mm<sup>2</sup>) may not hold in terminal securely.

## Material Listing

| Component                           | For Use with  | Material Used                           |
|-------------------------------------|---|---|
| Panel gasket                        | All operators   | Nitrile, TPE                            |
| Diaphragm seal                      | Illuminated push button, non-illuminated push button  | Automotive industry acceptable silicone |
| K-seal                              | Selector switch, key selector switch, push/twist-to-release E-stop, key E-stop, push/pull mushroom  | Nitrile                                 |
| Diaphragm retainer, return spring I | Illuminated push button, non-illuminated push button, momentary mushroom  | Stainless steel                         |
| Return spring II                    | Reset, selector switch, key selector switch, alternate action, push/twist-to-release E-stop, key E-stop, push/pull mushroom   | Zinc-coated music wire                  |
| Button cap/mushroom head            | Non-illuminated push button, momentary mushroom, reset, push/twist-to-release E-stop, key E-stop, push/pull mushroom, multi-function  | PBT/polycarbonate blend                 |
| 2-color molded button cap           | Non-illuminated push button   | PBT/polycarbonate blend                 |
| Lens                                | Multi-function  | Acetal                                  |
| Lens, knob                          | Illuminated push button, illuminated momentary mushroom, illuminated selector switch  | Polyamide                               |
| Knob                                | Non-illuminated selector switch   | Glass-filled polyamide                  |
| Plastic bezel/bushing I             | Non-illuminated push button, illuminated push button, momentary mushroom, selector switch, key selector switch, push/twist-to-release E-stop, key E-stop, push/pull mushroom, multi-function, reset | Glass-filled polyamide                  |
| Plastic bezel/bushing II, jam nut   | Pilot light, reset jam nut, reset pushers   | Glass-filled PBT                        |
| Metal bezel/bushing                 | All metal operators   | Zinc                                    |
| Diffuser                            | Illuminated push button, pilot light  | Polycarbonate                           |
| Legend frames                       | —   | Glass-filled polyamide                  |
| Plastic mounting ring               | All plastic operators   | Glass-filled polyamide                  |
| Metal mounting ring                 | All metal operators   | Chromated zinc                          |
| Plastic latch                       | —   | Glass-filled polyamide                  |
| Metal latch                         | —   | Chromated zinc + stainless steel        |
| Plastic enclosure                   | —   | PBT/polycarbonate blend                 |
| Metal enclosure                     | —   | Aluminum                                |
| Terminal screws                     | LED module, incandescent module, contact blocks   | Zinc-plated steel with chromate         |
| Terminals                           | LED module, incandescent module, contact blocks   | Brass with silver-nickel contacts       |
| Spring clamps                       | LED module, incandescent module, contact blocks   | Stainless steel                         |
| Lamp socket                         | Incandescent module   | Brass                                   |
| Housing                             | Incandescent module, LED module   | Glass-filled polyamide                  |
| Low-voltage terminals               | Contact blocks  | Gold-plated silver-nickel contacts      |
| Low-voltage spanner                 | Contact blocks  | Gold-plated silver-nickel contacts      |
| Spanner                             | Contact blocks  | Brass with silver-nickel contacts       |
| Boot                                | Toggle Switch, illuminated push button, non-illuminated push button, multi-function illuminated and non-illuminated   | Automotive industry acceptable silicone |

Momentary Push Button Operators, Non-Illuminated — Flush, Extended, Guarded



Flush Operator  
Cat. No. 800FP-F3



Extended Operator  
Cat. No. 800FM-E4



Guarded Operator  
Cat. No. 800FP-G6

800F  P  -  F   3  -    
a b c d

*a*

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

*b*

| Operator Type |             |
|---------------|-------------|
| Code          | Description |
| F             | Flush       |
| E             | Extended    |
| G             | Guarded     |

*c*

| Color Cap |                  |
|-----------|------------------|
| Code      | Color            |
| 0         | Orange           |
| 1         | White            |
| 2         | Black            |
| 3         | Green            |
| 4         | Red              |
| 5         | Yellow           |
| 6         | Blue             |
| 8         | Grey★            |
| 9         | No cap           |
| X         | Assortment pack‡ |

*d*

| Packaging |                 |
|-----------|-----------------|
| Code      | Description     |
| Blank     | 1 per package   |
| BP        | 10 per package§ |

★ Available in flush only.

‡ Assortment pack contains one cap of each color, not available in BP packaging.

§ Only available with no color cap (9 from Table c).

Momentary Push Button Operators, Non-Illuminated — with Two-Color Molded Legend Caps



**Flush Operator**  
Cat. No. 800FP-F301

800F  P  -  F   3   01   
           a          b          c          d

*a*

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

*c*

| Color Cap |        |
|-----------|--------|
| Code      | Color  |
| 0         | Orange |
| 1         | White  |
| 2         | Black  |
| 3         | Green  |
| 4         | Red    |
| 5         | Yellow |
| 6         | Blue   |

*d*

| Legend Text*‡§ |          |
|----------------|----------|
| Code           | Text     |
| Blank          | No Text  |
| 01             | START    |
| 02             | STOP     |
| 05             | O        |
| 06             | I        |
| 08             | →        |
| 09             | Forward△ |
| 10             | Reverse△ |
| 11             | R        |

*b*

| Operator Type |             |
|---------------|-------------|
| Code          | Description |
| F             | Flush       |
| E             | Extended    |
| G             | Guarded     |

- ★ For custom laser-engraved legend cap, consult your local Rockwell Automation sales office or Allen-Bradley distributor.
- ‡ White and yellow caps have black text. All other color caps have white text.
- ♣ Legend button cap supplied loose for customer installation.
- △ Available for flush only.
- § Valid color cap/legend text codes include:

| Color  | Text                             |               |
|--------|----------------------------------|---------------|
|        | Flush Caps                       | Extended Caps |
| White  | FORWARD, REVERSE, START, I, →, R | →, R          |
| Black  | FORWARD, REVERSE, →, R           | STOP, O, →, R |
| Green  | FORWARD, REVERSE, START, I, →    | →             |
| Red    | FORWARD, REVERSE, STOP, O, →     | STOP, O, →    |
| Yellow | FORWARD, REVERSE, →              | →             |
| Blue   | FORWARD, REVERSE, →, R           | →, R          |

Momentary Push Button Operators, Illuminated — Flush, Extended, Guarded



Flush Operator  
Cat. No. 800FM-LF4



Extended Operator  
Cat. No. 800FP-LE3



Guarded Operator  
Cat. No. 800FP-LG3

800F  P  -  LE   3  -    
           a          b          c          d

a

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

b

| Operator Type |             |
|---------------|-------------|
| Code          | Description |
| LF            | Flush       |
| LE            | Extended    |
| LG            | Guarded     |

c

| Color Cap ★ |         |
|-------------|---------|
| Code        | Color   |
| 0           | Amber‡  |
| 3           | Green   |
| 4           | Red     |
| 5           | Yellow‡ |
| 6           | Blue‡   |
| 7           | Clear   |
| 9           | No cap  |

d

| Packaging |                 |
|-----------|-----------------|
| Code      | Description     |
| Blank     | 1 per package   |
| BP        | 10 per package§ |

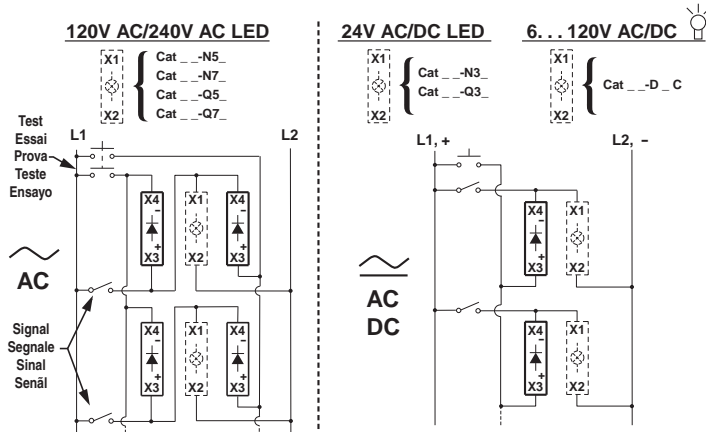
★ For custom laser-engraved operator, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

‡ When using LED for illumination, a white LED is recommended.

§ Only available with no color cap (9 from Table c).

Push-to-Test Push Button Device Schematic

Illuminated push buttons may be wired as a push-to-test device by using the following schematic and Cat. No. 800F-XD7 Diode module from page 10-111.





Alternate Action Operators — Non-Illuminated



Cat. No. 800FM-FA3

800F  M - FA   3   
           a      b      c

a

b

c

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

| Operator Type* |  |
|----------------|--|
| Code           | Description                              |
| FA             | Non-illuminated, flush, alternate action |

| Color Cap‡ |                 |
|------------|-----------------|
| Code       | Color           |
| 0          | Orange          |
| 1          | White           |
| 2          | Black           |
| 3          | Green           |
| 4          | Red             |
| 5          | Yellow          |
| 6          | Blue            |
| 9          | No cap          |
| X          | Assortment pack |

\* Must use N.O.E.M. or N.C. contacts.

‡ For custom laser-engraved legend cap, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

Alternate Action Operators — Illuminated



Cat. No. 800FP-LFA3

800F  P - LFA   3   
           a      b      c

a

b

c

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

| Operator Type*Δ |                                      |
|-----------------|--------------------------------------|
| Code            | Description                          |
| LFA             | Illuminated, flush, alternate action |

| Color Cap◆ |         |
|------------|---------|
| Code       | Color   |
| 0          | Amber◆  |
| 3          | Green   |
| 4          | Red     |
| 5          | Yellow◆ |
| 6          | Blue◆   |
| 7          | Clear   |
| 9          | No lens |

\* Must use N.O.E.M. or N.C. contacts.

Δ LED module required for illumination, can not use incandescent module.

◆ For custom laser-engraved operator, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

◆ Use of a white LED is recommended.

Pilot Light Operators



Plastic Pilot Light  
Cat. No. 800FP-P7



Metal Pilot Light  
Cat. No. 800FM-P4

800F  P  -  P   3  -    
           a          b          c          d

a

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

b

| Operator Type |             |
|---------------|-------------|
| Code          | Description |
| P             | Diffuser    |

c

| Lens Cap★ |         |
|-----------|---------|
| Code      | Color   |
| 0         | Amber‡  |
| 3         | Green   |
| 4         | Red     |
| 5         | Yellow‡ |
| 6         | Blue‡   |
| 7         | Clear   |
| 9         | No lens |

d

| Packaging |                |
|-----------|----------------|
| Code      | Description    |
| Blank     | 1 per package  |
| BP        | 10 per package |

★ For custom laser-engraved pilot light, consult your local Rockwell Automation sales office or Allen-Bradley distributor.  
 ‡ When using LED for illumination, a white LED is recommended.

2-Position Selector Switch Operators, Non-Illuminated

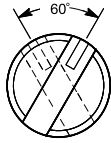


Standard Knob  
Cat. No. 800FP-SM22



Knob Lever  
Cat. No. 800FP-HM22

Switching Angle



| Target Table and Operator Position★ |   |   |
|-------------------------------------|---|---|
| Contact Type✦                       |   |   |
| N.O.                                | O | X |
| N.C.                                | X | O |

Note: X = Closed/O = Open

★ Target table for spring return from left is reversed from what is shown in the table.

✦ Contact selection is limited to the following options, consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

800F P - S M2 2 - e - f

*a*      *b*      *c*      *d*      *e*      *f*

*a*

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

*b*

| Operator Type |               |
|---------------|---------------|
| Code          | Description   |
| S             | Standard knob |
| H             | Knob lever‡   |

*c*

| Operator Function |  |
|-------------------|--|
| Code              | Type   |
| M2                | Maintained (60° switching angle)<br>               |
| L2                | Spring return from left (60° switching angle)<br>  |
| R2                | Spring return from right (60° switching angle)<br> |

*d*

| Knob/Insert Color |            |              |
|-------------------|------------|--------------|
| Code              | Knob Color | Insert Color |
| 2                 | Black      | White        |

*e*

| Orientation |             |
|-------------|-------------|
| Code        | Description |
| Blank       | Standard    |
| N           | 90° offset§ |

*f*

| Packaging |                 |
|-----------|-----------------|
| Code      | Description     |
| Blank     | 1 per package   |
| BP        | 10 per package△ |

‡ 30 mm hole spacing will not work if knob lever is used. See page 38 for recommended operator panel spacing.

§ For use in vertical mount Bul. 800F enclosures.

△ Not available with 90° offset orientation.

2-Position Selector Switch Operators, Illuminated ✦



**Standard Knob**  
Cat. No. 800FP-LSM26

Switching Angle



| Target Table and Operator Position ✦ |   |   |
|--------------------------------------|---|---|
| Contact Type ✦                       |   |   |
| N.O.                                 | O | X |
| N.C.                                 | X | O |

Note: X = Closed/O = Open

✦ Target table for spring return from left is reversed from what is shown in the table.

✦ Contact selection is limited to the following options, consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

800F  P  -  LS   M2   3

a                      b                      c                      d                      e

a

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description ‡                               |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

b

| Operator Type |               |
|---------------|---------------|
| Code          | Description   |
| LS            | Standard knob |
| LH            | Knob lever Δ  |

c

| Operator Function |  |
|-------------------|--|
| Code              | Type   |
| M2                | Maintained (60° switching angle)<br>               |
| L2                | Spring return from left (60° switching angle)<br>  |
| R2                | Spring return from right (60° switching angle)<br> |

d

| Knob/Insert Color |              |              |
|-------------------|--------------|--------------|
| Code              | Knob Color ✦ | Insert Color |
| 0                 | Amber ✦      | White        |
| 3                 | Green        | White        |
| 4                 | Red          | White        |
| 5                 | Yellow ✦     | Black        |
| 6                 | Blue ✦       | White        |
| 7                 | Clear        | Black        |

e

| Orientation |              |
|-------------|--------------|
| Code        | Description  |
| Blank       | Standard     |
| N           | 90° offset § |

‡ LED module required for illumination, can not use incandescent module.

§ For use in vertical mount enclosures.

✦ Crevices may exist on product that may be unsuitable for certain applications. Please consult your local Rockwell Automation sales office or Allen-Bradley distributor.

Δ Only available in clear.

✦ Use of a white LED is recommended.

3-Position Selector Switch Operators, Non-Illuminated

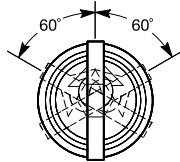


Standard Knob  
Cat. No. 800FP-SM32



Knob Lever  
Cat. No. 800FM-HM32

Switching Angle



| Target Table and Operator Position (60° Switching Angle) |                            |   |   |   |
|--|----------------------------|---|---|---|
| Contact Type <sup>Δ</sup>                                | Position on Mounting Latch |   |   |   |
| N.O.   | Left                       | X | O | O |
|  | Right                      | O | O | X |
|  | Center                     | X | O | X |
|  | Center CL <sup>§</sup>     | X | O | O |
|  | Center CR <sup>§</sup>     | O | O | X |
| N.C.   | Left                       | O | X | X |
|  | Right                      | X | X | O |
|  | Center                     | O | X | O |
|  | Center CL <sup>§</sup>     | O | X | X |
|  | Center CR <sup>§</sup>     | X | X | O |

Note: X = Closed/O = Open

<sup>Δ</sup> Contact selection is limited to the following options, consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

800F  P  -  S   M3   2   e   f

a

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

b

| Operator Type |               |
|---------------|---------------|
| Code          | Description   |
| S             | Standard knob |
| H             | Knob lever★   |

c

| Operator Function |                                       |
|-------------------|---------------------------------------|
| Code              | Type                                  |
| M3                | Maintained<br>                        |
| L3                | Spring return from left<br>           |
| R3                | Spring return from right<br>          |
| B3                | Spring return from left and right<br> |

d

| Knob/Insert Color |            |              |
|-------------------|------------|--------------|
| Code              | Knob Color | Insert Color |
| 2                 | Black      | White        |

e

| Orientation |                         |
|-------------|-------------------------|
| Code        | Description             |
| Blank       | Standard                |
| N           | 90° offset <sup>‡</sup> |

f

| Operation |                           |
|-----------|---------------------------|
| Code      | Description               |
| Blank     | Standard                  |
| CL        | Center left <sup>§</sup>  |
| CR        | Center right <sup>§</sup> |

★ 30 mm hole spacing will not work if knob lever is used. See page 38 for recommended operator panel spacing.

‡ For use in vertical mount enclosures.

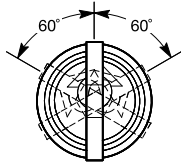
§ The center contact block can have the same target output as the left or right contact block, by specifying center left (CL) or center right (CR) option.

3-Position Selector Switch Operators, Illuminated §



**Standard Knob**  
Cat. No. 800FP-LSM37

Switching Angle



| Target Table and Operator Position (60° Switching Angle) |                            |   |   |   |
|--|----------------------------|---|---|---|
| Contact Type <sup>Δ</sup>                                | Position on Mounting Latch |   |   |   |
| N.O.   | Left                       | X | O | O |
|  | Right                      | O | O | X |
| N.C.   | Left                       | O | X | X |
|  | Right                      | X | X | O |

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

<sup>Δ</sup> Contact selection is limited to the following options, consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

**800F**   **P** - **LS**   **M3**   **3**   \_\_\_\_\_

*a*                      *b*                      *c*                      *d*                      *e*

*a*

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description★                                |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

*b*

| Operator Type |               |
|---------------|---------------|
| Code          | Description   |
| LS            | Standard knob |
| LH            | Knob lever♣   |

*c*

| Operator Function |                                   |
|-------------------|-----------------------------------|
| Code              | Type                              |
| M3                | Maintained                        |
| L3                | Spring return from left           |
| R3                | Spring return from right          |
| B3                | Spring return from left and right |

*d*

| Knob/Insert Color |             |              |
|-------------------|-------------|--------------|
| Code              | Knob Color♦ | Insert Color |
| 0                 | Amber♦      | White        |
| 3                 | Green       | White        |
| 4                 | Red         | White        |
| 5                 | Yellow♦     | Black        |
| 6                 | Blue♦       | White        |
| 7                 | Clear       | Black        |

*e*

| Orientation |             |
|-------------|-------------|
| Code        | Description |
| Blank       | Standard    |
| N           | 90° offset‡ |

★ LED module required for illumination, can not use incandescent module.

‡ For use in vertical mount 800F enclosures.

§ Crevices may exist on product that may be unsuitable for certain applications. Please consult your local Rockwell Automation sales office or Allen-Bradley distributor.

♣ Only available in clear.

♦ Use of a white LED is recommended.

4-Position Selector Switch Operators, Non-Illuminated



**Standard Knob**  
Cat. No. 800FP-SM42

| Target Table and Operator Position★ |                            |   |   |   |   |
|-------------------------------------|----------------------------|---|---|---|---|
| Contact Type‡                       | Position on Mounting Latch |   |   |   |   |
| N.O.                                | Left                       | O | O | X | O |
|                                     | Right                      | X | O | O | O |
|                                     | Center                     | X | O | X | O |
|                                     | Center CL                  | O | O | X | O |
|                                     | Center CR                  | X | O | O | O |
| N.C.E.B.                            | Left                       | O | O | O | X |
|                                     | Right                      | O | X | O | O |
|                                     | Center CL                  | O | O | O | X |
|                                     | Center CR                  | O | X | O | O |
| N.C.L.B.                            | Left                       | X | X | O | X |
|                                     | Right                      | O | X | X | X |
|                                     | Center                     | O | X | O | X |
|                                     | Center CL                  | X | X | O | X |
|                                     | Center CR                  | O | X | X | X |

Note: X = Closed/O = Open

★ Must use N.O., N.C.E.B., or N.C.L.B. contact blocks only. Cannot use N.C. or N.O.E.M. contact blocks with 4-position selector switch.

‡ Contact selection is limited to the following options, consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

800F      P   -   S        M4        2                        
           a          b          c          d          e          f

a

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

c

| Operator Function |                                      |
|-------------------|--------------------------------------|
| Code              | Type                                 |
| M4                | Maintained (45° switching angle)<br> |

e

| Orientation |             |
|-------------|-------------|
| Code        | Description |
| Blank       | Standard    |
| N           | 90° offset‡ |

b

| Operator Type |               |
|---------------|---------------|
| Code          | Description   |
| S             | Standard knob |
| H             | Knob lever    |

d

| Knob/Insert Color |            |              |
|-------------------|------------|--------------|
| Code              | Knob Color | Insert Color |
| 2                 | Black      | White        |

f

| Operation |               |
|-----------|---------------|
| Code      | Description   |
| Blank     | Standard      |
| CL        | Center left§  |
| CR        | Center right§ |

‡ For use in vertical mount enclosures.

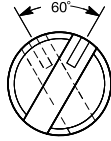
§ The center contact block can have the same target output as the left or right contact block, by specifying center left (CL) or center right (CR) option.

2-Position Key-Operated Selector Switches, Non-Illuminated



**Key Selector Switch**  
Cat. No. 800FP-KM21R

Switching Angle



| Target Table and Operator Position★ |   |   |
|-------------------------------------|---|---|
| Contact Type♦                       |   |   |
| N.O.                                | O | X |
| N.C.                                | X | O |

Note: X = Closed/O = Open

★ Target table for spring return from left is reversed from what is shown in the table.

♦ Contact selection is limited to the following options, consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

800F  M  -  KM2   1     
           a          b          c          d

a

| Operator Construction |  |
|-----------------------|--|
| Code                  | Description                              |
| P                     | Round plastic operator (IP66, Type 4/13) |
| M                     | Round metal operator (IP66, Type 4/13)   |

b

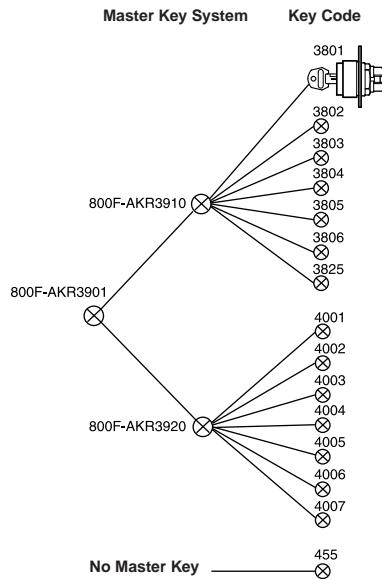
| Operator Type |  |
|---------------|--|
| Code          | Type   |
| KM2           | Maintained (60° switching angle)               |
| KL2           | Spring return from left (60° switching angle)  |
| KR2           | Spring return from right (60° switching angle) |

c

| Key Removal Position‡ |          |
|-----------------------|----------|
| Code                  | Position |
| 1                     | Left     |
| 2                     | Right    |
| 3                     | Both     |

d

| Ronis Key Lock§*Δ |                 |
|-------------------|-----------------|
| Code              | Key No.         |
| Blank             | 3825 (Standard) |
| R                 | 455             |
| 01R               | 3801            |
| 02R               | 3802            |
| 03R               | 3803            |
| 04R               | 3804            |
| 05R               | 3805            |
| 06R               | 3806            |
| 27R               | 4001            |
| 28R               | 4002            |
| 29R               | 4003            |
| 30R               | 4004            |
| 31R               | 4005            |
| 32R               | 4006            |
| 33R               | 4007            |



‡ Key removal in maintained positions only.

§ Keyed operators are IP66, Type 4/13.

\* Not intended for high security applications. Interoperability is possible with certain key/cylinder lock combinations. Consult your local Rockwell Automation sales office or Allen-Bradley distributor for interoperability information.

Δ For replacement Ronis keys, see Accessories, consult your local Rockwell Automation sales office or Allen-Bradley distributor.



3-Position Key-Operated Selector Switches, Non-Illuminated

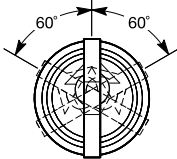


Key-Operated Selector Switch  
Cat. No. 800FP-KM31R



Key-Operated Selector Switch  
Cat. No. 800FM-KM31R

Switching Angle



| Target Table and Operator Position |                            |   |   |   |
|------------------------------------|----------------------------|---|---|---|
| Contact Type ♦                     | Position on Mounting Latch |   |   |   |
| N.O.                               | Left                       | X | O | O |
|                                    | Right                      | O | O | X |
|                                    | Center                     | X | O | X |
| N.C.                               | Left                       | O | X | X |
|                                    | Right                      | X | X | O |
|                                    | Center                     | O | X | O |

Note: X = Closed/O = Open

♦ Contact selection is limited to the following options, consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

800F           - KM3                      
                   a          b          c          d

a

| Operator Construction |  |
|-----------------------|--|
| Code                  | Description                              |
| P                     | Round plastic operator (IP66, Type 4/13) |
| M                     | Round metal operator (IP66, Type 4/13)   |

b

| Operator Type |                          |
|---------------|--------------------------|
| Code          | Description              |
| KM3           | Maintained               |
| KR3           | Spring return from right |
| KL3           | Spring return from left  |
| KB3           | Spring return from both  |

c

| Key Removal Position ★ |              |  |
|------------------------|--------------|--|
| Code                   | Type         |  |
| 1                      | Left         |  |
| 3                      | All          |  |
| 4                      | Center       |  |
| 5                      | Left/center  |  |
| 7Δ                     | Center/right |  |

d

See page 16 for optional key codes ‡§♣

★ Key removal in maintained positions only.

‡ Keyed operators are IP66, Type 4/13.

§ Not intended for high security applications. Interoperability is possible with certain key/cylinder lock combinations. Consult your local Rockwell Automation sales office or Allen-Bradley distributor for interoperability information.

♣ For replacement Ronis keys, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

Δ Key removal position only valid with operator types 800F\_-KM3 and 800F\_-KL3.

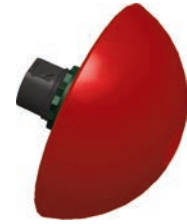
2-Position Push-Pull Operators, Non-Illuminated — Twist-to-Release (Trigger Action), Push-Pull (Trigger Action)★▲



40 mm Trigger Action  
Twist-to-Release Mushroom  
Cat. No. 800FP-MT44



40 mm Trigger Action  
Push-Pull Mushroom  
Cat. No. 800FP-MP44



90 mm Half-Dome  
Cat. No. 800FP-MP94

800F P – MT4 4

*a*      *b*      *c*      *d*

*a*

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

*b*

| Operator Type           |                  |
|-------------------------|------------------|
| Push, Twist-to-Release◆ |                  |
| Code                    | Type             |
| MT3                     | 30 mm color cap  |
| MT4                     | 40 mm color cap  |
| MT6                     | 60 mm color cap  |
| Push-Pull▽              |                  |
| Code                    | Type             |
| MP4                     | 40 mm color cap  |
| Half-Dome Push-Pull▽    |                  |
| Code                    | Type             |
| MP9                     | 90 mm color cap‡ |

*c*

| Color Cap |        |
|-----------|--------|
| Code      | Color  |
| 2         | Black  |
| 3         | Green  |
| 4         | Red    |
| 5         | Yellow |
| 6         | Blue   |

d§▲

| Engraving |                     |
|-----------|---------------------|
| Code      | Description         |
| Blank     | No engraving on cap |
| LE        | EMO laser engraved  |
| E         | EMO printed         |

- ★ All emergency stop operators are EN ISO 13850 compliant with standard NC, NCLB, or self-monitoring contact blocks.
- ▲ E-Stop operators, latch, and contact block combinations have been third-party tested for B10d values. B10d values can be found in publication SAFETY-SR001\_-EN-E.
- ◆ Only available with red color cap.
- § For EMO guards, consult your local Rockwell Automation sales office or Allen-Bradley distributor.
- ▲ Only available on 40 mm color cap.
- △ Only available on red, 40 mm push, twist-to-release operator type (MT44).
- ‡ Half-dome operators only available with black, red, and yellow color caps.
- ▽ Limit of four contact blocks max. for these devices.

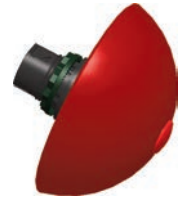
2-Position Push-Pull Operators, Illuminated — Twist-to-Release (Trigger Action), Push-Pull (Trigger Action)★‡∇



40 mm Illuminated Twist-to-Release  
Cat. No. 800FP-LMT44



40 mm Mushroom Push/Pull  
Cat. No. 800FM-LMP44



90 mm Half-Dome  
Cat. No. 800FP-LMP94

800F  P - LMP4 3   
 a b c

a

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

b

| Operator Type            |                  |
|--------------------------|------------------|
| Push, Twist-to-Release§♣ |                  |
| Code                     | Type             |
| LMT4                     | 40 mm color cap  |
| LMT6                     | 60 mm color cap  |
| Push-Pull&               |                  |
| Code                     | Type             |
| LMP3                     | 30 mm color cap  |
| LMP4                     | 40 mm color cap  |
| LMP6                     | 60 mm color cap  |
| Half-Dome Push-Pull&     |                  |
| Code                     | Type             |
| LMP9                     | 90 mm color cap♠ |

c

| Lens Cap Color |         |
|----------------|---------|
| Code           | Color   |
| 3              | Green   |
| 4              | Red     |
| 5              | Yellow♦ |
| 6              | Blue△♦  |

★ LED module required for illumination, can not use incandescent module.

‡ All emergency stop operators are EN ISO 13850 compliant with standard NC, NCLB, or self-monitoring contact blocks.

∇ E-Stop operators, latch, and contact block combinations have been third-party tested for B10d values. B10d values can be found in publication SAFETY-SR001\_-EN-E.

§ Only available with red color cap.

♣ 60 mm version has black arrows; 30 and 40 mm versions have white arrows.

♦ Use of a white LED is recommended.

△ Only available with 40 mm Push-Pull color cap (LMP4 from Table b).

♠ Half-dome operators only available with red and yellow lens cap colors.

& Limit of four contact blocks max. for these devices.

2-Position Non-Illuminated Operators — Mushroom, Key Release (Trigger Action)★△



40 mm Key Release Mushroom  
Cat. No. 800FP-MK44

800F P - MK4 4           
          a      b      c      d

a

| Operator Construction |  |
|-----------------------|--|
| Code                  | Description                              |
| P                     | Round plastic operator (IP66, Type 4/13) |
| M                     | Round metal operator (IP66, Type 4/13)   |

b

| Operator Type        |       |
|----------------------|-------|
| Key Release Mushroom |       |
| Code                 | Type  |
| MK4                  | 40 mm |

c

| Lens Cap Color |       |
|----------------|-------|
| Code           | Color |
| 4              | Red   |

d

| Ronis Key Lock†§* |                 |
|-------------------|-----------------|
| Code              | Key No.         |
| Blank             | 3825 (Standard) |
| R                 | 455             |
| 01R               | 3801            |
| 02R               | 3802            |
| 03R               | 3803            |
| 04R               | 3804            |
| 05R               | 3805            |
| 06R               | 3806            |
| 27R               | 4001            |
| 28R               | 4002            |
| 29R               | 4003            |
| 30R               | 4004            |
| 31R               | 4005            |
| 32R               | 4006            |
| 33R               | 4007            |

- ★ All emergency stop operators are EN ISO 13850 compliant with standard NC, NCLB, or self-monitoring contact blocks.
- △ E-Stop operators, latch, and contact block combinations have been third-party tested for B10d values. B10d values can be found in publication SAFETY-SR001\_-EN-E.
- † Keyed operators are IP66, Type 4/13.
- § Not intended for high security applications. Interoperability is possible with certain key/cylinder lock combinations. Consult your local Rockwell Automation sales office or Allen-Bradley distributor for interoperability information.
- \* For replacement Ronis keys, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

3-Position Push-Pull Operators, Illuminated & Non-Illuminated — Mushroom $\Delta$



**Illuminated 3-Position Push-Pull**  
Cat. No. 800FM-LMP44E3

| Target Table and Operator Position $\star$ |     |        |    |
|--|-----|--------|----|
| Contact Type $\nabla$                      |     |        |    |
|  | Out | Center | In |
| N.O.                                       | O   | O      | X  |
| N.C.E.B.                                   | X   | O      | O  |
| N.C.L.B.                                   | X   | X      | O  |

Note: X = Closed/O = Open

$\star$  Must use N.O., N.C.E.B., or N.C.L.B. contact blocks only. Cannot use N.C. or N.O.E.M. contact blocks with 3-position push-pull operators.

$\nabla$  Contact selection is limited to the following options, consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

800F    M    -    L    MM    4    4    E3  
           a        b        c        d        e        f

a

| Operator Construction |  |
|-----------------------|--|
| Code                  | Description                            |
| M                     | Round metal operator (IP66, Type 4/13) |

b

| Operator Type |                        |
|---------------|------------------------|
| Code          | Description            |
| Blank         | Non-illuminated        |
| L             | Illuminated $\ddagger$ |

c

| Operator Function |   |
|-------------------|---|
| Code              | Description                                     |
| MM                | Momentary out, Maintained center, Momentary in  |
| MP                | Momentary out, Maintained center, Maintained in |

d

| Cap Size |               |
|----------|---------------|
| Code     | Description   |
| 4        | 40 mm plastic |

e

| Cap Color |                        |
|-----------|------------------------|
| Code      | Description            |
| 0         | Amber $\S$ $\clubsuit$ |
| 2         | Black $\clubsuit$      |
| 3         | Green                  |
| 4         | Red                    |
| 6         | Blue $\S$ $\clubsuit$  |
| 7         | Clear $\S$ $\clubsuit$ |

f

| Positions |             |
|-----------|-------------|
| Code      | Description |
| E3        | 3-position  |

$\Delta$  Sold as stand-alone operator only. Not available as a composite catalog number.

$\ddagger$  LED module required for illumination. Cannot use incandescent module.

$\S$  Available in illuminated only.

$\clubsuit$  Use of white LED is recommended.

$\clubsuit$  Available in non-illuminated only.

Momentary Push Button Operators, Non-Illuminated — Mushroom ★



40 mm Mushroom  
Cat. No. 800FM-MM42



60 mm Mushroom  
Cat. No. 800FP-MM63



90 mm Mushroom  
Cat. No. 800FP-MM94

800F  P  -  MM4   3   
           a                  b                  c

a

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP65, Type 4/4X/13) |
| M                     | Round metal operator (IP65, Type 4/13)      |

b

| Size and Operator Type |                  |
|------------------------|------------------|
| Code                   | Type             |
| MM4                    | 40 mm momentary  |
| MM6                    | 60 mm momentary  |
| MM9                    | 90 mm momentary‡ |

c

| Color Cap |        |
|-----------|--------|
| Code      | Color  |
| 2         | Black  |
| 3         | Green  |
| 4         | Red    |
| 5         | Yellow |
| 6         | Blue   |

★ Momentary mushroom operators are IP65 rated.  
 ‡ Only available with black, red, and yellow cap colors.

Momentary Push Button Operators, Illuminated — Mushroom Δ



40 mm Mushroom  
Cat. No. 800FP-LMM43

800F  P  -  LMM4   3   
           a                  b                  c

a

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP65, Type 4/4X/13) |
| M                     | Round metal operator (IP65, Type 4/13)      |

b

| Size and Operator Type |                 |
|------------------------|-----------------|
| Code                   | Type            |
| LMM4                   | 40 mm momentary |

c

| Lens Cap Color |         |
|----------------|---------|
| Code           | Color   |
| 3              | Green   |
| 4              | Red     |
| 5              | Yellow§ |
| 6              | Blue §  |
| 7              | Clear § |

Δ Momentary mushroom operators are IP65 rated.  
 § When using LED for illumination, a white LED is recommended.

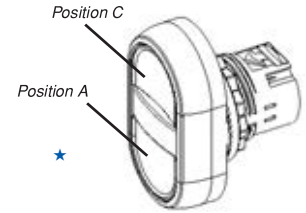
2-Function Momentary Multi-Operator, Non-Illuminated



2-Function Momentary Multi-Operator Non-Illuminated  
Cat. No. 800FP-U2E4F3

800F P – U2 E 4 F 3 (with button caps)  
a b c d e f

800F P – U2 X (without button caps)  
a b c



a

| Operator Construction |                                    |
|-----------------------|------------------------------------|
| Code                  | Description                        |
| P                     | Plastic operator (IP66, Type 4/4X) |
| M                     | Metal operator (IP66, Type 4)      |

b

| Operator Type |              |
|---------------|--------------|
| Code          | Description  |
| U2            | Two-function |

c

| Operator Type — Position A★ |                          |
|-----------------------------|--------------------------|
| Code                        | Description              |
| F                           | Flush                    |
| E                           | Extended                 |
| X                           | No caps (all positions)‡ |

d

| Operator Color Cap/Text — Position A§ |                         |
|---------------------------------------|-------------------------|
| Code                                  | Description             |
| 1                                     | White                   |
| 2                                     | Black                   |
| 3                                     | Green                   |
| 4                                     | Red                     |
| 5                                     | Yellow                  |
| 6                                     | Blue                    |
| A                                     | Green with "Start" text |
| B                                     | Red with "Stop" text    |
| C                                     | White with "Start" text |
| D                                     | Black with "Stop" text  |
| E                                     | Green with "I" text     |
| F                                     | Red with "O" text       |
| G                                     | White with "I" text     |
| H                                     | Black with "O" text     |

f

| Operator Color Cap/Text — Position C§ |                         |
|---------------------------------------|-------------------------|
| Code                                  | Description             |
| 1                                     | White                   |
| 2                                     | Black                   |
| 3                                     | Green                   |
| 4                                     | Red                     |
| 5                                     | Yellow                  |
| 6                                     | Blue                    |
| A                                     | Green with "Start" text |
| B                                     | Red with "Stop" text    |
| C                                     | White with "Start" text |
| D                                     | Black with "Stop" text  |
| E                                     | Green with "I" text     |
| F                                     | Red with "O" text       |
| G                                     | White with "I" text     |
| H                                     | Black with "O" text     |

e

| Operator Type — Position C★ |             |
|-----------------------------|-------------|
| Code                        | Description |
| F                           | Flush       |
| E                           | Extended    |

★ Position 1 of the latch (left position when viewed from the back) corresponds to position A of the operator. Position 2 of the latch (right position when viewed from the back) corresponds to position C of the operator.

‡ For custom-engraved caps, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

§ Valid color cap/legend text codes include:

| Color | Text       |               |
|-------|------------|---------------|
|       | Flush Caps | Extended Caps |
| White | START, I   | —             |
| Black | —          | STOP, O       |
| Green | START, I   | —             |
| Red   | —          | STOP, O       |

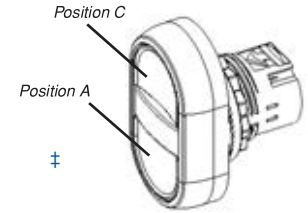
2-Function Momentary Multi-Operator, Illuminated★



2-Function Momentary Multi-Operator Illuminated  
Cat. No. 800FP-LU2E2E1

800F P – LU2 E 4 F 3 (with button caps)  
*a b c d e f*

800F P – LU2 X (without button caps)  
*a b c*



*a*

| Operator Construction |                                    |
|-----------------------|------------------------------------|
| Code                  | Description                        |
| P                     | Plastic operator (IP66, Type 4/4X) |
| M                     | Metal operator (IP66, Type 4)      |

*b*

| Operator Type★ |                          |
|----------------|--------------------------|
| Code           | Description              |
| LU2            | Two-function Illuminated |

*c*

| Operator Type — Position A‡ |                          |
|-----------------------------|--------------------------|
| Code                        | Description              |
| F                           | Flush                    |
| E                           | Extended                 |
| X                           | No caps (all positions)§ |

*d*

| Operator Color Cap/Text — Position A* |                         |
|---------------------------------------|-------------------------|
| Code                                  | Description             |
| 1                                     | White                   |
| 2                                     | Black                   |
| 3                                     | Green                   |
| 4                                     | Red                     |
| 5                                     | Yellow                  |
| 6                                     | Blue                    |
| A                                     | Green with "Start" text |
| B                                     | Red with "Stop" text    |
| C                                     | White with "Start" text |
| D                                     | Black with "Stop" text  |
| E                                     | Green with "I" text     |
| F                                     | Red with "O" text       |
| G                                     | White with "I" text     |
| H                                     | Black with "O" text     |

*f*

| Operator Color Cap/Text — Position C* |                         |
|---------------------------------------|-------------------------|
| Code                                  | Description             |
| 1                                     | White                   |
| 2                                     | Black                   |
| 3                                     | Green                   |
| 4                                     | Red                     |
| 5                                     | Yellow                  |
| 6                                     | Blue                    |
| A                                     | Green with "Start" text |
| B                                     | Red with "Stop" text    |
| C                                     | White with "Start" text |
| D                                     | Black with "Stop" text  |
| E                                     | Green with "I" text     |
| F                                     | Red with "O" text       |
| G                                     | White with "I" text     |
| H                                     | Black with "O" text     |

*e*

| Operator Type — Position C‡ |             |
|-----------------------------|-------------|
| Code                        | Description |
| F                           | Flush       |
| E                           | Extended    |

★ LED module required for illumination, can not use incandescent module.

‡ Position 1 of the latch (left position when viewed from the back) corresponds to position A of the operator. Position 2 of the latch (right position when viewed from the back) corresponds to position C of the operator. Position 3 of the latch (center position) is reserved for the power module.

§ For custom-engraved caps, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

\* Valid color cap/legend text codes include:

| Color | Text       |               |
|-------|------------|---------------|
|       | Flush Caps | Extended Caps |
| White | START, I   | —             |
| Black | —          | STOP, O       |
| Green | START, I   | —             |
| Red   | —          | STOP, O       |

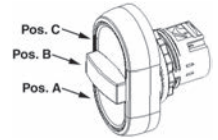


3-Function Momentary Multi-Operator, Non-Illuminated



3-Function Momentary Multi-Operator Non-Illuminated  
Cat. No. 800FP-U3E4F34

800F P – U3 E 4 F 3 4 (with button caps)  
*a b c d e f g*



800F P – U3 X (without button caps)  
*a b c*

*a*

| Operator Construction |                                    |
|-----------------------|------------------------------------|
| Code                  | Description                        |
| P                     | Plastic operator (IP66, Type 4/4X) |
| M                     | Metal operator (IP66, Type 4)      |

*b*

| Operator Type |                |
|---------------|----------------|
| Code          | Description    |
| U3            | Three-function |

*c*

| Operator Type — Position A★ |                           |
|-----------------------------|---------------------------|
| Code                        | Description               |
| F                           | Flush                     |
| E                           | Extended                  |
| X                           | No caps (all positions)†§ |

*d*

| Operator Color Cap/Text — Position A★ |             |
|---------------------------------------|-------------|
| Code                                  | Description |
| 1                                     | White       |
| 2                                     | Black       |
| 3                                     | Green       |
| 4                                     | Red         |
| 5                                     | Yellow      |
| 6                                     | Blue        |

*d (cont'd)*

| Operator Color Cap/Text — Position A★ |                         |
|---------------------------------------|-------------------------|
| Code                                  | Description             |
| A                                     | Green with “Start” text |
| B                                     | Red with “Stop” text    |
| C                                     | White with “Start” text |
| D                                     | Black with “Stop” text  |
| E                                     | Green with “I” text     |
| F                                     | Red with “O” text       |
| G                                     | White with “I” text     |
| H                                     | Black with “O” text     |

*e*

| Operator Type — Position C★ |             |
|-----------------------------|-------------|
| Code                        | Description |
| F                           | Flush       |
| E                           | Extended    |

*f*

| Operator Color Cap/Text — Position C★ |             |
|---------------------------------------|-------------|
| Code                                  | Description |
| 1                                     | White       |
| 2                                     | Black       |
| 3                                     | Green       |
| 4                                     | Red         |
| 5                                     | Yellow      |
| 6                                     | Blue        |

*f (cont'd)*

| Operator Color Cap/Text — Position C★ |                         |
|---------------------------------------|-------------------------|
| Code                                  | Description             |
| A                                     | Green with “Start” text |
| B                                     | Red with “Stop” text    |
| C                                     | White with “Start” text |
| D                                     | Black with “Stop” text  |
| E                                     | Green with “I” text     |
| F                                     | Red with “O” text       |
| G                                     | White with “I” text     |
| H                                     | Black with “O” text     |

*g*

| Operator Color Cap/Text — Position B★§ |                      |
|--|----------------------|
| Code                                   | Description          |
| 4                                      | Red                  |
| B                                      | Red with “Stop” text |
| F                                      | Red with “O” text    |

★ Position 1 of the latch (left position when viewed from the back) corresponds to position A of the operator. Position 2 of the latch (right position when viewed from the back) corresponds to position C of the operator. Position 3 of the latch (center position) corresponds to position B of the operator.

† For custom-engraved caps, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

§ For “no caps” option, (position B) center cap available as red, no text only.

★ Valid color cap/legend text codes include:

| Color | Text       |               |
|-------|------------|---------------|
|       | Flush Caps | Extended Caps |
| White | START, I   | —             |
| Black | —          | STOP, O       |
| Green | START, I   | —             |
| Red   | —          | STOP, O       |

Reset Operators — Mechanical and/or Electrical Reset



**Reset Operator**  
Cat. No. 800FP-R611

800F  M  -  R   6   11   
           *a*           *b*           *c*           *d*

*a*

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

*b*

| Operator Type |          |
|---------------|----------|
| Code          | Type     |
| R             | Reset *‡ |

*c*

| Color Cap |       |
|-----------|-------|
| Code      | Color |
| 1         | White |
| 2         | Black |
| 6         | Blue  |

*d*

| Legend Text |         |
|-------------|---------|
| Code        | Text    |
| Blank       | No text |
| 11          | R       |

\* Will accept latch and up to four single circuit contact blocks or two dual circuit contact blocks; no contacts allowed in center position.

‡ 11 mm reset stroke length.

Selector Push Button Operators



**Selector Jog Operator**  
Cat. No. 800FM-SJ23

Target Table and Operator Position (2-Position)

| Contact Type† | Position on Mounting Latch | ⤵                  |                         | ⤴                   |                          |
|---------------|----------------------------|--------------------|-------------------------|---------------------|--------------------------|
|               |                            | Selector Left Free | Selector Left Depressed | Selector Right Free | Selector Right Depressed |
| N.O.          | Left                       | O                  | X                       | O                   | O                        |
| N.O.          | Right                      | O                  | O                       | O                   | X                        |
| N.O.          | Center                     | O                  | X                       | O                   | X                        |
| N.C.          | Left                       | X                  | O                       | X                   | X                        |
| N.C.          | Right                      | X                  | X                       | X                   | O                        |
| N.C.          | Center                     | X                  | O                       | X                   | O                        |

Note: X = Closed/O = Open

Target Table and Operator Position (3-Position)

| Contact Type† | Position on Mounting Latch | ⤵                  |                         | ⤴                    |                           | ⤶                   |                          |
|---------------|----------------------------|--------------------|-------------------------|----------------------|---------------------------|---------------------|--------------------------|
|               |                            | Selector Left Free | Selector Left Depressed | Selector Center Free | Selector Center Depressed | Selector Right Free | Selector Right Depressed |
| N.O.          | Left                       | O                  | X                       | O                    | X                         | O                   | O                        |
| N.O.          | Right                      | O                  | O                       | O                    | X                         | O                   | X                        |
| N.O.          | Center                     | O                  | X                       | O                    | X                         | O                   | X                        |
| N.C.          | Left                       | X                  | O                       | X                    | O                         | X                   | X                        |
| N.C.          | Right                      | X                  | X                       | X                    | O                         | X                   | O                        |
| N.C.          | Center                     | X                  | O                       | X                    | O                         | X                   | O                        |

Note: X = Closed/O = Open

† Contact selection is limited to the following options; consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

800F  P  -  SJ   2   2   
                  a          b          c          d

a

| Operator Construction |   |
|-----------------------|---|
| Code                  | Description                                 |
| P                     | Round plastic operator (IP66, Type 4/4X/13) |
| M                     | Round metal operator (IP66, Type 4/13)      |

c

| Operator Function |             |
|-------------------|-------------|
| Code              | Description |
| 2                 | 2-position  |
| 3                 | 3-position  |

b

| Operator Type |              |
|---------------|--------------|
| Code          | Description  |
| SJ            | Selector jog |

d

| Color Cap★ |             |
|------------|-------------|
| Code       | Description |
| 2          | Black       |
| 3          | Green       |

★ Buttons cannot be engraved.

Toggle Switch Operators



**Toggle Switch Operator**  
Cat. No. 800FM-JM2

Target Table and Operator Position (2-Position)

| Contact Type* | Position on Mounting Latch |             |        |              |
|---------------|----------------------------|-------------|--------|--------------|
|               |                            | Toggle Left | Center | Toggle Right |
| N.O.          | Left                       | O           | O      | X            |
| N.O.          | Right                      | X           | O      | O            |
| N.O.          | Center                     | X           | O      | X            |
| N.C.          | Left                       | X           | X      | O            |
| N.C.          | Right                      | O           | X      | X            |
| N.C.          | Center                     | O           | X      | O            |

Note: X = Closed/O = Open

Target Table and Operator Position (4-Position)§

| Contact Type* | Position on Mounting Latch |           |             |        |              |             |
|---------------|----------------------------|-----------|-------------|--------|--------------|-------------|
|               |                            | Toggle Up | Toggle Left | Center | Toggle Right | Toggle Down |
| N.O.          | Left                       | X         | O           | O      | O            | O           |
| N.O.          | Right                      | O         | X           | O      | O            | O           |
| N.O.          | Center                     | X         | X           | O      | O            | O           |
| N.C.L.B.      | Left                       | O         | X           | X      | X            | X           |
| N.C.L.B.      | Right                      | X         | O           | X      | X            | X           |
| N.C.L.B.      | Center                     | O         | O           | X      | X            | X           |
| N.C.E.B.      | Left                       | O         | O           | O      | O            | X           |
| N.C.E.B.      | Right                      | O         | O           | O      | X            | O           |

Note: X = Closed/O = Open

\* Contact selection is limited to the following options, consult your local Rockwell Automation sales office or Allen-Bradley distributor for other options.

§ Must use N.O., N.C.E.B., or N.C.L.B. contact blocks only. Cannot use N.C. or N.O.E.M. contact blocks with 4-position toggle switch.

800F      M   -   J        M2    
                  a            b            c

a

b

c

| Operator Construction |  |
|-----------------------|--|
| Code                  | Description                            |
| M                     | Round metal operator (IP66, Type 4/13) |

| Operator Type |                  |
|---------------|------------------|
| Code          | Description      |
| J             | Toggle switch *‡ |

| Operator Function |                        |
|-------------------|------------------------|
| Code              | Description            |
| M2                | 2-position, maintained |
| R2                | 2-position, momentary  |
| M4                | 4-position, maintained |
| R4                | 4-position, momentary  |

\* Use legend plates 800F-34\_ and 800F-35\_.

‡ Silicone boot comes standard with toggle switch, consult your local Rockwell Automation sales office or Allen-Bradley distributor for replacement boots.

Back-of-Panel Components

Contact Blocks with Latch — Composite

800F – P X 0 1 E  
*a* *b* *c* *d* *e*



*a*

| Style |               |
|-------|---------------|
| Code  | Description   |
| P     | Plastic latch |
| M     | Metal latch   |

*b*

| Contact Block(s) Termination Style* |                          |
|-------------------------------------|--------------------------|
| Code                                | Description              |
| X                                   | Screw termination        |
| Q                                   | Spring-clamp termination |

\* Six circuits maximum allowable.

*c*

| N.O. (Normally Open) Circuits |             |
|-------------------------------|-------------|
| Code                          | Description |
| 0                             | No contact  |
| 1                             | 1 N.O.      |
| 2                             | 2 N.O.      |
| 3                             | 3 N.O.      |
| 4                             | 4 N.O.      |
| 5                             | 5 N.O.      |
| 6                             | 6 N.O.      |

*d*

| N.C. (Normally Closed) Circuits |             |
|---------------------------------|-------------|
| Code                            | Description |
| 0                               | No contact  |
| 1                               | 1 N.C.      |
| 2                               | 2 N.C.      |
| 3                               | 3 N.C.      |
| 4                               | 4 N.C.      |
| 5                               | 5 N.C.      |
| 6                               | 6 N.C.      |

*e*

| Specialty Contact Block(s) |                            |
|----------------------------|----------------------------|
| Code                       | Description                |
| Blank                      | Standard blocks            |
| V                          | Low voltage — QuadCONNECT™ |
| E                          | N.O. early make            |
| L                          | N.C. late break            |
| B                          | N.C. early break           |
| S                          | N.C. self-monitoring       |

Power Modules with Latch — Composite

800F – M N 3 G  
*a* *b* *c* *d*



*a*

| Style |               |
|-------|---------------|
| Code  | Description   |
| P     | Plastic latch |
| M     | Metal latch   |

*b*

| Power Module Type§* |   |
|---------------------|---|
| Code                | Description                                     |
| D                   | Incandescent module, screw termination          |
| N                   | Integrated LED module, screw termination        |
| Q                   | Integrated LED module, spring-clamp termination |

*c*

| Voltage |                         |
|---------|-------------------------|
| Code    | Description             |
| 0       | No bulb $\Delta$        |
| 1       | 6V AC/DC $\Delta$       |
| 2       | 12V AC/DC $\Delta$      |
| 3       | 24V AC/DC               |
| 4       | 48V AC/DC $\Delta$      |
| 5       | 120V AC                 |
| 7       | 240V AC $\blacklozenge$ |

*d*

| Lamp Color $\blacklozenge$ |              |
|----------------------------|--------------|
| Code                       | Description  |
| C                          | Incandescent |
| R                          | Red LED      |
| G                          | Green LED    |
| W                          | White LED    |

§ LED modules for use with all illuminated operators. Incandescent module for use with pilot lights, momentary push buttons, and momentary mushroom operators only.

\* Four circuits maximum allowable when power module is used. Contact blocks cannot be stacked on power module.

$\Delta$  Only available for incandescent module.

$\blacklozenge$  Only available for integrated LED module.

$\blacklozenge$  For best illumination results, LED color should match lens color. For yellow operator, select a white LED.

Back-of-Panel Components, Continued

Power Modules with Contact Blocks and Latch — Composite

800F – P N 5 R X 1 0 E  
*a* *b* *c* *d* *e* *f* *g* *h*

*a*

| Style |               |
|-------|---------------|
| Code  | Description   |
| P     | Plastic latch |
| M     | Metal latch   |

*b*

| Power Module Type*‡ |   |
|---------------------|---|
| Code                | Description                                     |
| D                   | Incandescent module, screw termination          |
| N                   | Integrated LED module, screw termination        |
| Q                   | Integrated LED module, spring-clamp termination |

*c*

| Voltage |             |
|---------|-------------|
| Code    | Description |
| 0       | No bulb§    |
| 1       | 6V AC/DC§   |
| 2       | 12V AC/DC§  |
| 3       | 24V AC/DC   |
| 4       | 48V AC/DC§  |
| 5       | 120V AC     |
| 7       | 240V AC♣    |

*d*

| Lamp Color△ |              |
|-------------|--------------|
| Code        | Description  |
| C           | Incandescent |
| R           | Red LED      |
| G           | Green LED    |
| W           | White LED    |

*e*

| Contact Block(s) Termination Style |                          |
|------------------------------------|--------------------------|
| Code                               | Description              |
| X                                  | Screw termination        |
| Q                                  | Spring-clamp termination |

*f*

| N.O. (Normally Open) Circuits |             |
|-------------------------------|-------------|
| Code                          | Description |
| 0                             | No contact  |
| 1                             | 1 N.O.      |
| 2                             | 2 N.O.      |
| 3                             | 3 N.O.      |
| 4                             | 4 N.O.      |

*g*

| N.C. (Normally Closed) Circuits |             |
|---------------------------------|-------------|
| Code                            | Description |
| 0                               | No contact  |
| 1                               | 1 N.C.      |
| 2                               | 2 N.C.      |
| 3                               | 3 N.C.      |
| 4                               | 4 N.C.      |

*h*

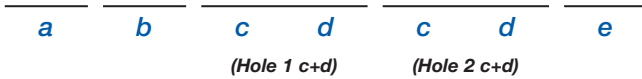
| Specialty Contact Block(s) |                            |
|----------------------------|----------------------------|
| Code                       | Description                |
| Blank                      | Standard blocks            |
| V                          | Low voltage — QuadCONNECT™ |
| E                          | N.O. early make            |
| L                          | N.C. late break            |
| B                          | N.C. early break           |
| S                          | N.C. self-monitoring       |

★ Four circuits maximum allowable when power module is used. Contact blocks cannot be stacked on power module.  
 ‡ LED modules for use with all illuminated operators. Incandescent module for use with pilot lights, push buttons, and momentary mushroom operators only.  
 § Only available for incandescent module.  
 ♣ Only available for integrated LED module.  
 △ For best illuminated results, LED should match lens color. For yellow operator, select a white LED.

Assembled Stations with DeviceNet

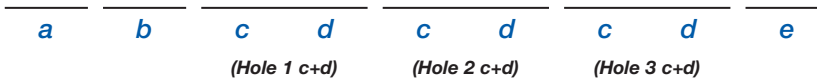
2-Hole

800F –



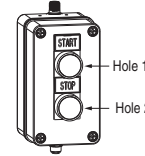
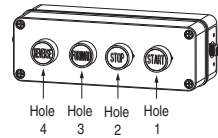
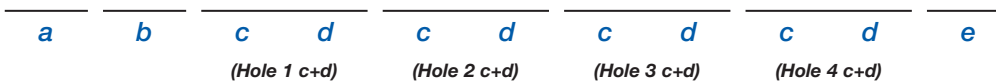
3-Hole

800F –



4-Hole

800F –



4-Hole Assembled Station  
Cat. No. 800F-VHA3A4J3J4J

a

| Mounting Orientation |             |
|----------------------|-------------|
| Code                 | Description |
| V                    | Vertical ★  |
| H                    | Horizontal  |

b

| Enclosure Style/Legends |                                       |
|-------------------------|---------------------------------------|
| Code                    | Description                           |
| A                       | 2-hole/legend frames                  |
| B                       | 3-hole/legend frames                  |
| C                       | 4-hole/legend frames                  |
| D                       | 2-hole/no legend frames               |
| E                       | 3-hole/no legend frames               |
| F                       | 4-hole/no legend frames               |
| H                       | 2-hole/E-stop only no legend frames ‡ |

c

| Operator Types |   |
|----------------|---|
| Code           | Description                                   |
| A              | Non-illuminated flush button                  |
| B              | Non-illuminated extended button               |
| C              | Non-illuminated guarded button                |
| D              | Illuminated flush button ▽                    |
| E              | Illuminated extended button ▽                 |
| F              | Illuminated guarded button ▽                  |
| G              | Non-illuminated 2-pos. selector switch        |
| H              | Non-illuminated 3-pos. selector switch        |
| J              | Pilot light (diffused)                        |
| K              | Hole plug &                                   |
| L              | Non-illuminated TTR E-stop §&                 |
| M              | Non-illuminated push pull §&                  |
| N              | 2-pos. key selector switch                    |
| P              | 3-pos. key selector switch                    |
| R              | Non-illuminated 40 mm mushroom                |
| T              | E-stop key release §&                         |
| U              | Potentiometer *&                              |
| W              | Illuminated push pull                         |
| X              | Illuminated 2-pos. maintained selector switch |
| Y              | Illuminated 3-pos. maintained selector switch |
| Z              | Illuminated 40 mm mushroom                    |

d

| Color/Text |                                  |
|------------|----------------------------------|
| Code       | Description                      |
| 1          | White                            |
| 2          | Black                            |
| 3          | Green                            |
| 4          | Red                              |
| 5          | Yellow                           |
| 6          | Blue                             |
| 7          | Clear                            |
| 8          | Grey Δ                           |
| 9          | No cap                           |
| 0          | Amber                            |
| A          | Green with "Start" text          |
| B          | Red with "Stop" text             |
| C          | Black with "→" symbol            |
| D          | Black with "←" symbol            |
| E          | Black with "↑" symbol            |
| F          | Black with "↓" symbol            |
| G          | Green with "I" symbol            |
| H          | Red with "O" symbol              |
| L          | Blue with "R" text               |
| M          | Red with yellow metal guard #    |
| N          | Yellow with yellow metal guard # |

e

| External I/O Version ♦ |  |
|------------------------|--|
| Code                   | Description                                    |
| Blank                  | No external I/O                                |
| A                      | 1 input/1 output (sinking)                     |
| B                      | 1 input/1 output (sourcing)                    |
| C                      | 2 input  |
| E                      | 2 output (sourcing)                            |
| F                      | 1 E-stop block ▲                               |
| G                      | 2 E-stop block ▲                               |
| H                      | 2 input/2 output                               |
| K                      | 2 input/2 output (sourcing)                    |
| L                      | 1 input/1 output (sinking) + 1 E-stop block ▲  |
| M                      | 1 input/1 output (sourcing) + 1 E-stop block ▲ |
| N                      | 1 input/1 output (sinking) + 2 E-stop block ▲  |
| P                      | 1 input/1 output (sourcing) + 2 E-stop block ▲ |
| Q                      | 2 input + 1 E-stop block ▲                     |
| R                      | 2 input + 2 E-stop block ▲                     |
| U                      | 2 output (sourcing) + 1 E-stop block ▲         |
| W                      | 2 output (sourcing) + 2 E-stop block ▲         |
| X                      | 2 input + 1 input/1 output (sinking)           |

★ Selector Switches in a vertical mount enclosure are mounted with a horizontal orientation.  
 ‡ Enclosure Style/Legend option H from Table b can only select one operator from Table c. Valid options are L, M, and T. Also see footnote §  
 § Operator Types L, M, and T from Table c may be used as emergency stops. To be valid as an E-Stop, operators must use color/text option 4 from Table d and it must be placed in the last hole position in the enclosure, where a yellow round E-stop legend plate is provided. An E-Stop connector also must be chosen from Table e. Also see footnote ▲  
 ♦ Potentiometer allowed in first hole position only.  
 Δ Available in flush only.  
 ♦ This is an 8-in/4-out device. 2-in and 1-out are assigned to each hole position in the enclosure. If a 2-hole enclosure is selected, 4-in and 2-out are assigned internally and up to 4 unassigned I/O points can be assigned to external connectors. This device contains up to two physical external I/O connectors. The "+" symbol in the Description field of table e indicates that two external connectors exist. If an E-Stop connector is used, 2 unassigned I/O points can be assigned to the other connector.  
 ▲ External I/O Versions F, L, M, Q, and U receive only one contact block for the external E-Stop string. These connectors are rated 3 A. If more than 3 A of current is needed or if there are two E-Stop strings, use External I/O Versions G, N, P, R, and W. These versions receive two contact blocks. This allows for 6 A of switching or for two E-Stop strings.  
 ▽ Cannot be ordered with "No Cap" (9 from Table d - Color/Text).  
 & Operator Types K, L, M, T, and U from Table c are not available with legend frames.  
 # Only available with non-illuminated push-pull operator (M from Table c).

Two-Color Molded Legend Caps — Non-Illuminated Push Buttons

800F – AF 3 01  
*a* *b* *c*



Cat. No. 800F-15YSE112C

| Button Cap Type |             |
|-----------------|-------------|
| Code            | Description |
| AF              | Flush       |
| AE              | Extended    |

| Color Cap |             |
|-----------|-------------|
| Code      | Description |
| 1         | White       |
| 2         | Black       |
| 3         | Green       |
| 4         | Red         |
| 5         | Yellow      |
| 6         | Blue        |

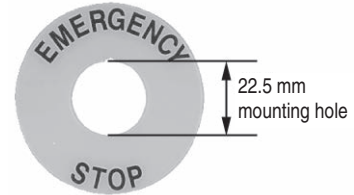
| Legend Text‡§ |             |
|---------------|-------------|
| English       |             |
| Code          | Description |
| 01            | START       |
| 02            | STOP        |
| 05            | O           |
| 06            | I           |
| 08            | →           |
| 09            | FORWARD★    |
| 10            | REVERSE★    |
| 11            | R           |

- ★ Available in flush only.
- ‡ White and yellow caps have black text. All other color caps have white text.
- § Valid color cap text codes include:

| Color  | Text                             |               |
|--------|----------------------------------|---------------|
|        | Flush Caps                       | Extended Caps |
| White  | FORWARD, REVERSE, START, I, →, R | →, R          |
| Black  | FORWARD, REVERSE, →, R           | STOP, O, →, R |
| Green  | FORWARD, REVERSE, START, I, →    | →             |
| Red    | FORWARD, REVERSE, STOP, O, →     | STOP, O, →    |
| Yellow | FORWARD, REVERSE, →              | →             |
| Blue   | FORWARD, REVERSE, →, R           | →, R          |

Emergency Stop Legend Plates ♣

800F – 15YS  
*a* *b*



| Size/Color (Yellow) |                                      |
|---------------------|--------------------------------------|
| Code                | Description                          |
| 15Y                 | 60 mm round (30.5 mm mounting hole)  |
| 15YS                | 60 mm round (22.5 mm mounting hole)♦ |
| 16Y                 | 90 mm round (22.5 mm mounting hole)♦ |

| Text  |                           |
|-------|---------------------------|
| Code  | Description               |
| Blank | No text                   |
| E112  | EMERGENCY STOP            |
| F112  | ARRÊT D'URGENCE▲          |
| S112  | PARO DE EMERGENCIA        |
| G112  | NOT HALT                  |
| T112  | ARRESTO EMERGENZA         |
| N112  | NÖDSTOPP, EMERGENCY STOP▲ |
| P112  | PARADA DE EMERGENCIA      |

| Text |  |
|------|--|
| Code | Description  |
| W112 | NÖDSTOPP, EMERGENCY STOP▲                              |
| A112 | NÖDSTOP  |
| B112 | EMERGENCY STOP, ARRÊT D'URGENCE, PARADA DE EMERGENCIA▲ |
| D112 | NOODSTOP▲  |
| M112 | NOT HALT, ARRESTO EMERGENZA, ARRÊT D'URGENCE▽          |
| L112 | NEYÐARSTOPP, NEYÐARSTOPP▲                              |
| H112 | NÖD-STOP, HÄTÄ-SEIS, NÖD-STOP▲                         |

- ♣ Sold only multiples of 10. Order (quantity of) 10 to receive one package of 10 pieces.
- ♦ Not for use with base mounted contact blocks.
- ▲ Not available on 15YS version.
- ▽ Text printed on the 15Y version only.
- & Text printed on the 15YS & 16Y versions only.

Push Button, Multi-Function Caps

800F – A F 1 C   
*a* *b*

| Type |  |
|------|--|
| Code | Description                                  |
| E    | Push button extended cap                     |
| F    | Push button flush cap                        |
| FA   | Alternate action cap                         |
| FAU  | Multi-function flush cap (for position A)    |
| EAU  | Multi-function extended cap (for position A) |
| FCU  | Multi-function flush cap (for position C)    |
| ECU  | Multi-function extended cap (for position C) |

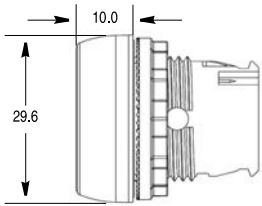
| Color |             |
|-------|-------------|
| Code  | Description |
| 0     | Amber       |
| 1     | White       |
| 2     | Black       |
| 3     | Green       |
| 4     | Red         |
| 5     | Yellow      |
| 6     | Blue        |



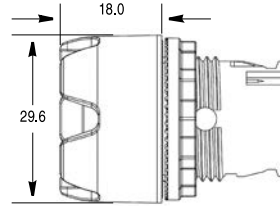
**Approximate Dimensions**

Dimensions in millimeters. Dimensions are not intended to be used for manufacturing purposes. Refer to RAISE software for additional dimensional information.

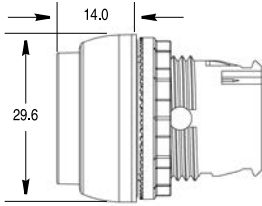
**Non-Illuminated and Illuminated Momentary Flush Push Button Operators**



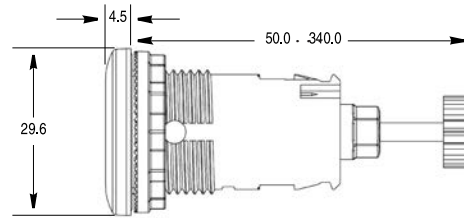
**Illuminated Momentary Guarded Push Button Operators**



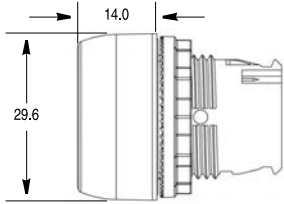
**Illuminated and Non-Illuminated Momentary Extended Push Button Operators**



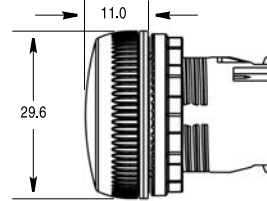
**Reset Operators with Reset Rod**



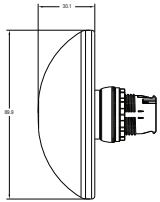
**Non-Illuminated Guarded, Illuminated and Non-Illuminated Alternate Action Push Button Operators**



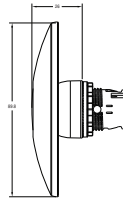
**Pilot Light Operators**



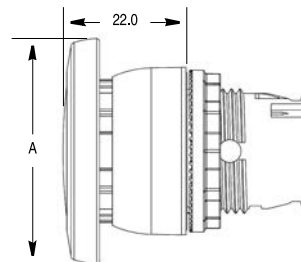
**90 mm Half Dome**



**90 mm Mushroom**

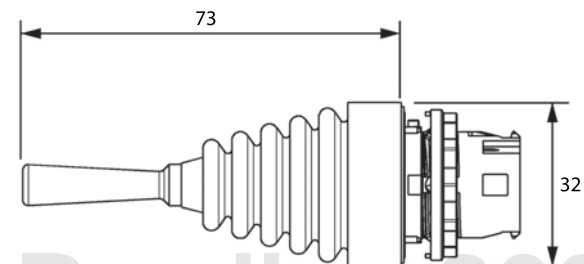


**Illuminated and Non-Illuminated Momentary Mushroom Operators 40 mm and 60 mm**

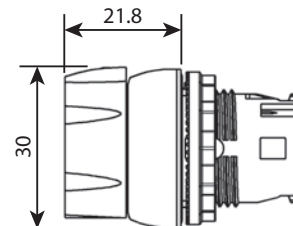


| Operator | A    |
|----------|------|
| 40 mm    | 39.8 |
| 60 mm    | 59.8 |

**Toggle Switch Operators**



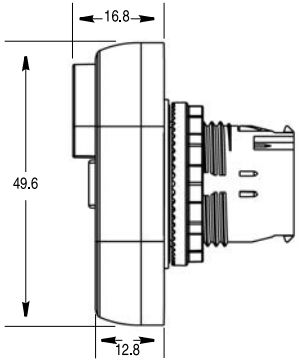
**Selector Jog Operators**



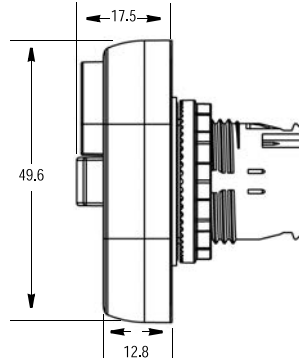
en-Bradley 800FP-LFA5PN3WX2

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

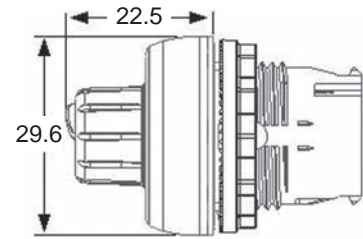
**Illuminated and Non-Illuminated 2-Position Multi-Function Operators**



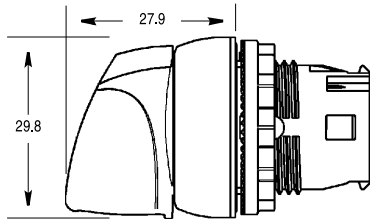
**Non-Illuminated 3-Position Multi-Function Operators**



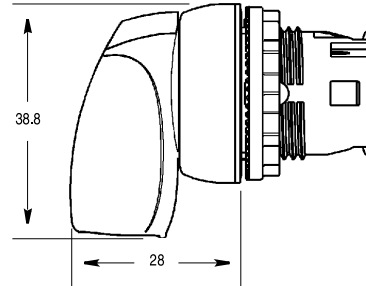
**Potentiometer Operator**



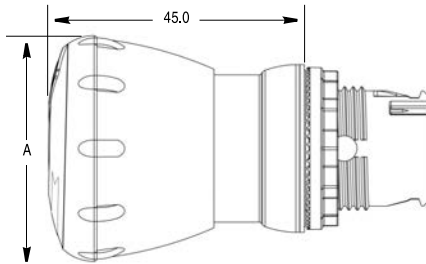
**Illuminated and Non-Illuminated Knob Selector Switch Operators**



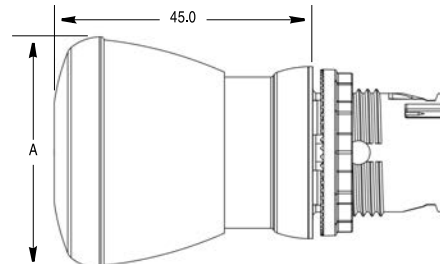
**Non-Illuminated Knob Lever Selector Switch Operators**



**Illuminated and Non-Illuminated Twist-to-Release Operators 30 mm, 40 mm, and 60 mm**

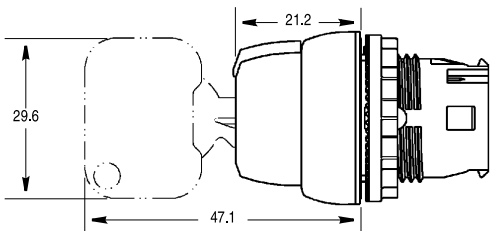


**Illuminated and Non-Illuminated Push-Pull Mushroom Operators 30 mm, 40 mm, and 60 mm**

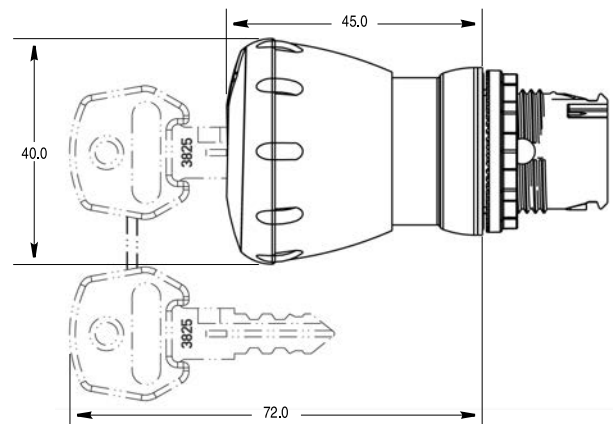


| Operator | A    |
|----------|------|
| 30 mm    | 30.0 |
| 40 mm    | 40.0 |
| 60 mm    | 60.0 |

**Key Selector Switch and Key Ejected Senseject Operators**

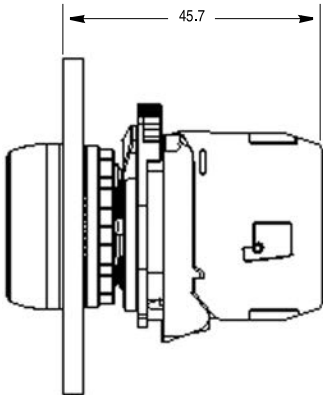


**Mushroom Key Release Operator 40 mm**

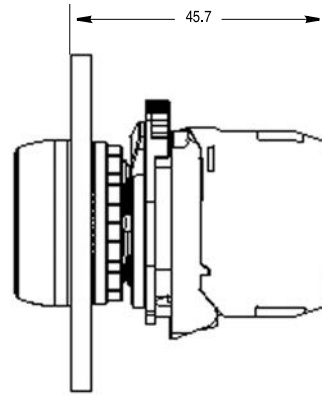


Dimensions in millimeters. Dimensions are not intended to be used for manufacturing purposes.

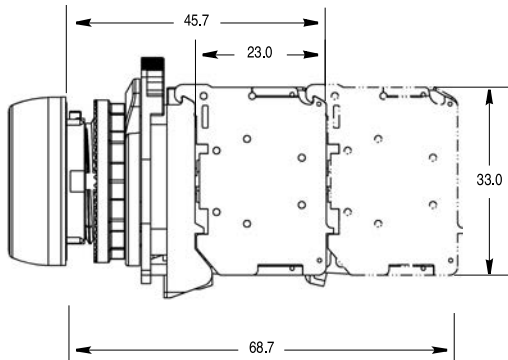
Back-of-Panel Components —  
Incandescent Module with Latch



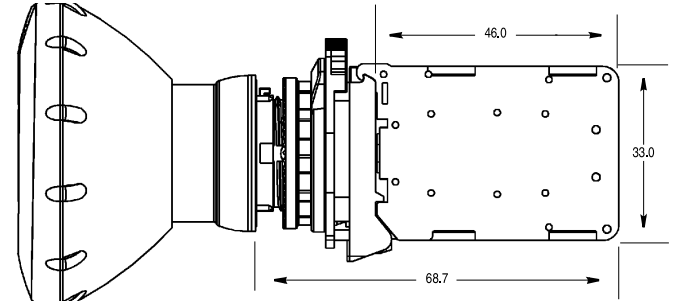
Back-of-Panel Components —  
LED Module with Latch



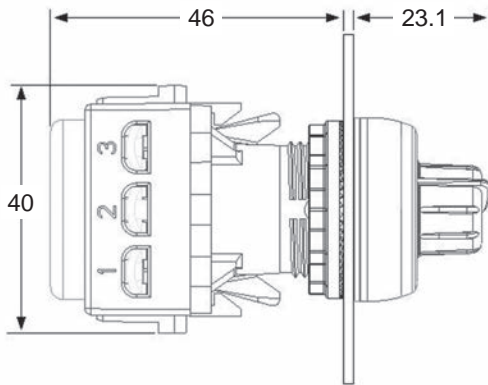
Back-of-Panel Components —  
Contact Cartridges with Latch



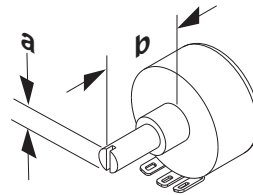
Back-of-Panel Components —  
Dual Circuit Contact Block or  
Self Monitoring Contact Block  
(Max. of 1 Deep)



Potentiometer with Resistive Element



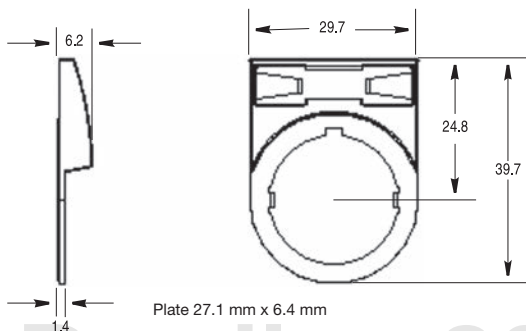
Customer Supplied Resistive Element



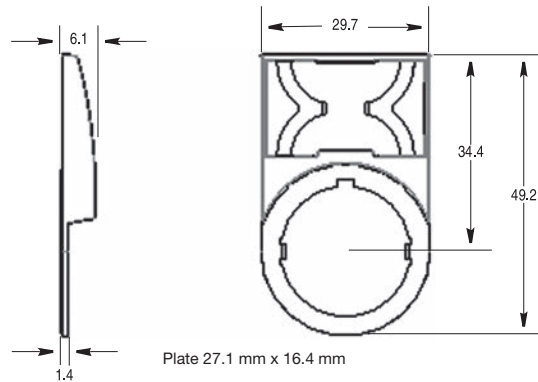
|               | Max.           |                | Min.           |
|---------------|----------------|----------------|----------------|
| a<br>(Ø Dia.) | 6.4<br>(0.252) | 5.9<br>(0.232) | 5.7<br>(0.224) |
| b<br>(Length) | 24<br>(0.945)  | 32<br>(1.26)   | 14<br>(0.551)  |

Dimensions in millimeters (inches).

30 x 40 mm Snap-In Legend Plate



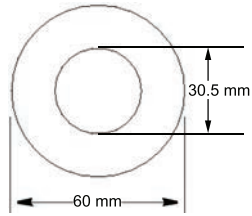
30 x 50 mm Snap-In Legend Plate



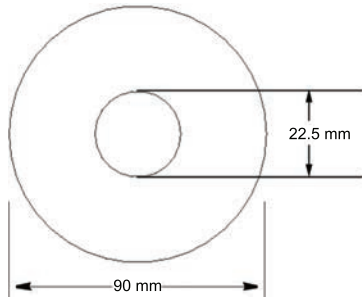
en-Bradley 800FP-LFA5PN3WX2

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

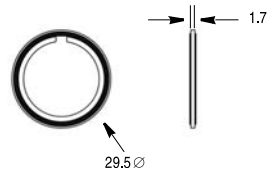
60 mm Round Legend — 15Y



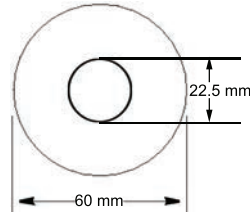
90 mm Round Legend



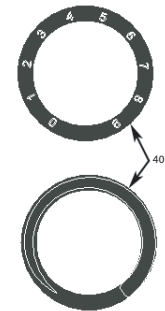
Trim Washer



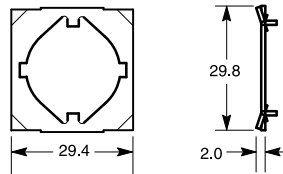
60 mm Round Legend — 15YS



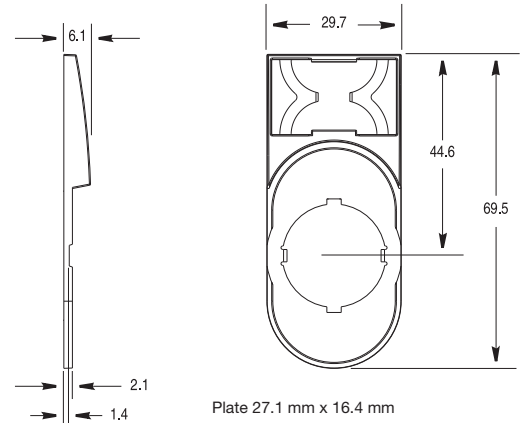
Potentiometer Legend Plate (Series A)



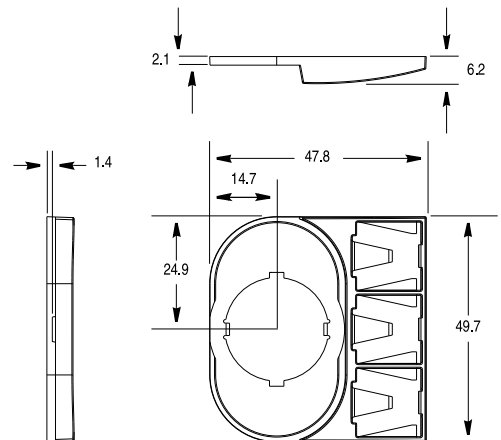
Anti-Rotation Washer



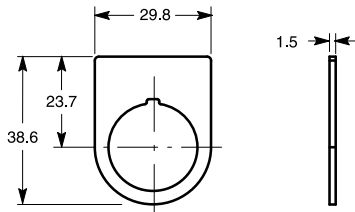
30 x 60 mm Snap-In Legend Plate



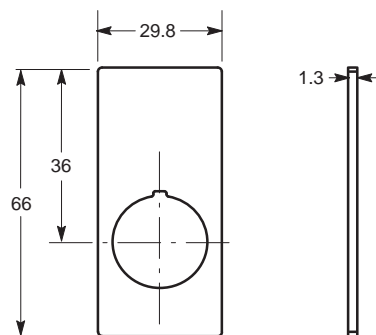
Special Multi-Function Snap-In Legend Plate



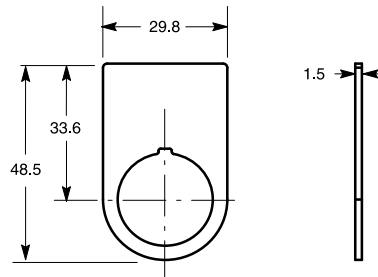
30 x 40 mm One-Piece Legend Plate



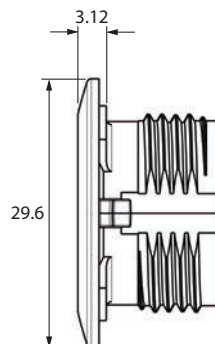
30 x 66 mm One-Piece Legend Plate



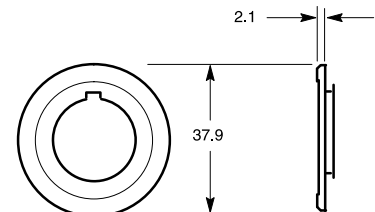
30 x 50 mm One-Piece Legend Plate



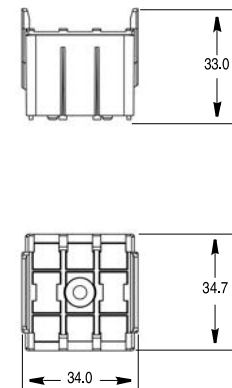
Hole Plug



30 mm to 22.5 mm Hole Adapter



Base Mount Adapter

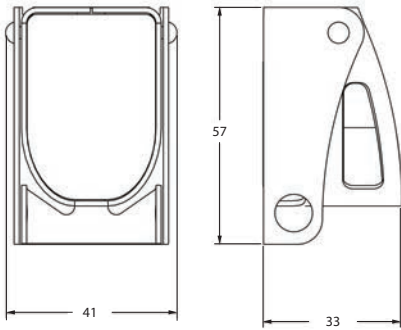


Note: Panel thickness range is 1.0...6.0 mm maximum.

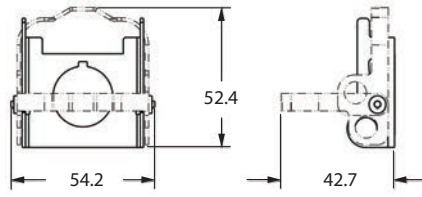
Panel thickness reduced to 4 mm (standard anti-rotation washer) or 5 mm (thin anti-rotation washer) when optional legend plates are used.

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

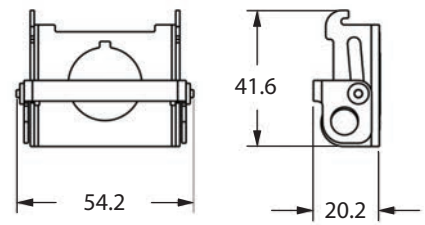
**Locking Cover**



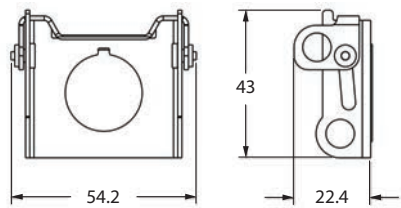
**Maintained Mushroom Locking Attachment**



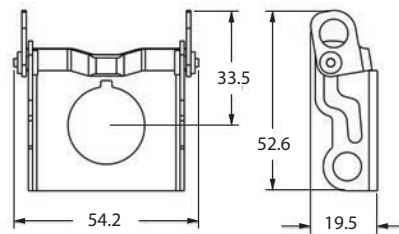
**Momentary Mushroom Locking Attachment**



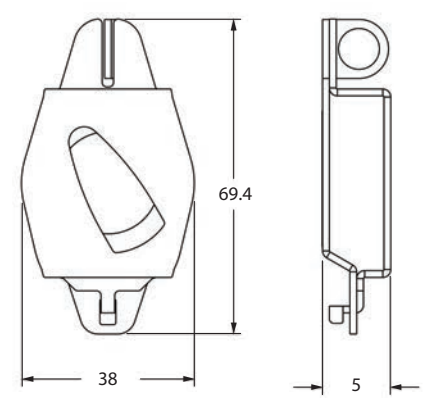
**Extended Non-Illuminated Locking Attachment**



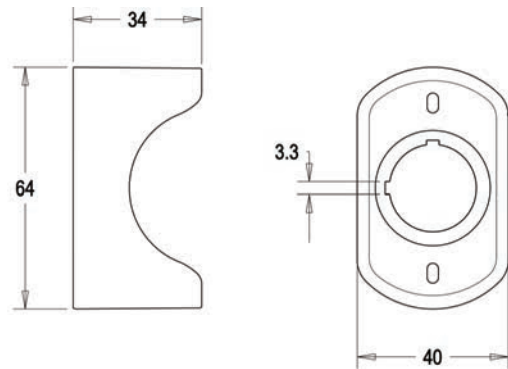
**Flush Non-Illuminated Locking Attachment**



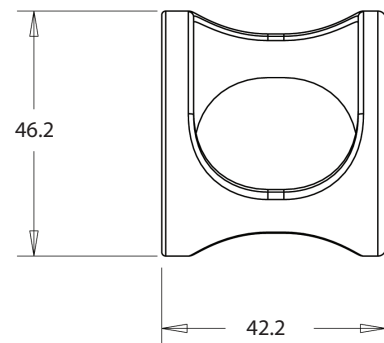
**Selector Switch Locking Cover (Same for all Lock Positions)**



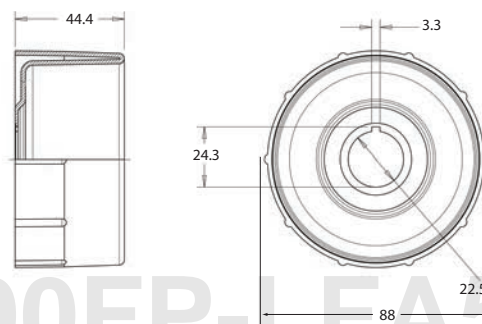
**Narrow Guard**



**Protective Ring**



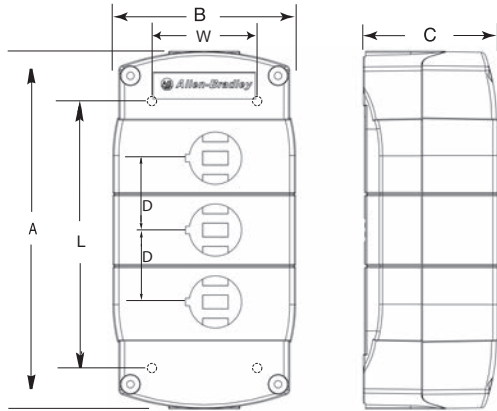
**Plastic Guard**



en-Bradley 800FP-LFA5PN3WX2

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

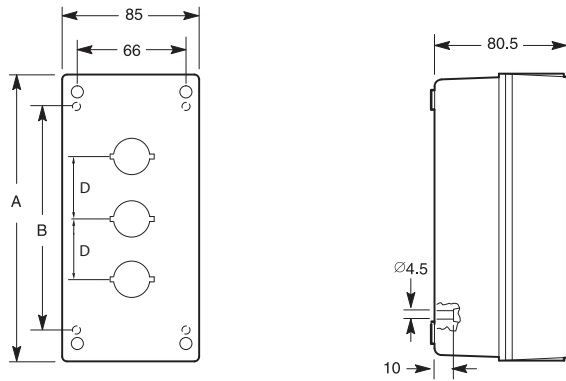
Plastic Enclosures†



| Cat. No.             | No. of Holes | A   | B  | C  | D  | Mounting Holes |       |
|----------------------|--------------|-----|----|----|----|----------------|-------|
|                      |              |     |    |    |    | W              | L     |
| 800F-1P★<br>800F-1Y★ | 1            | 85  | 89 | 58 | —  | 58             | 59    |
| 800F-1Y★D            |              | 85  | 89 | 74 | —  | 58             | 65    |
| 800F-2P★             | 2            | 124 | 79 | 58 | 31 | 48             | 102.5 |
| 800F-3P★             | 3            | 155 | 79 | 58 | 31 | 48             | 133   |
| 800F-4P★             | 4            | 186 | 79 | 58 | 31 | 48             | 164.5 |
| 800F-6P★             | 6            | 248 | 87 | 64 | 31 | 55             | 224   |

† Mounting screw — pan head with diameter ≤ 7 mm.  
★ P = PG conduit holes or M = Metric conduit holes

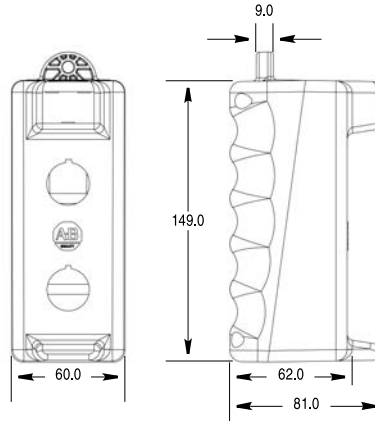
Metal Enclosures



| Cat. No. | No. of Holes | A   | D    | Mounting Holes |
|----------|--------------|-----|------|----------------|
|          |              |     |      | L              |
| 800F-1M★ | 1            | 99  | —    | 62             |
| 800F-2M★ | 2            | 137 | 37.5 | 100            |
| 800F-3M★ | 3            | 174 | 37.5 | 137            |
| 800F-5M★ | 5            | 249 | 37.5 | 212            |

★ P = PG conduit holes or M = Metric conduit holes

Pendant Stations



Note: Cable opening = 21.2 mm diameter

Instruction Sheet

OPTIONAL EN OPTION  
OPTIONAL PLASTIQUE  
OPZIONALE

|   |    |    |       |       |       |       |       |    |    |   |
|---|----|----|-------|-------|-------|-------|-------|----|----|---|
| Ⓐ | ⓐ  | ⓑ  | Ⓒ     | Ⓓ     | Ⓔ     | Ⓕ     | Ⓖ     | Ⓗ  | Ⓙ  | Ⓚ |
| Ⓐ | ⓐ  | ⓑ  | Ⓒ     | Ⓓ     | Ⓔ     | Ⓕ     | Ⓖ     | Ⓗ  | Ⓙ  | Ⓚ |
| Ⓑ | ⓐ  | ⓑ  | Ⓒ     | Ⓓ     | Ⓔ     | Ⓕ     | Ⓖ     | Ⓗ  | Ⓙ  | Ⓚ |
|   | 40 | 50 | 40    | 50    | 40/60 | 50/60 | 60/90 | 70 | 50 |   |
|   | 30 | 48 | 40/60 | 60/90 | 30    | 50    |       |    |    |   |

1- 4,8 mm  
"Clic"  
"Clic"  
1- 2,8 mm  
"Clic"  
"Clic"  
1- 4 mm  
1- 6 mm

7 mm  
0,75 - 1,5 mm<sup>2</sup>  
(#18 - #14 AWG)  
0,6 mm  
1- 3,5 mm  
8 mm

0,75 - 2,5 mm<sup>2</sup>  
(#18 - #12 AWG)  
0,7 - 0,9 Nm  
6 - 8 lb-in

PLASTIC  
PLASTIK  
PLASTIQUE  
PLASTICO  
PLÁSTICA

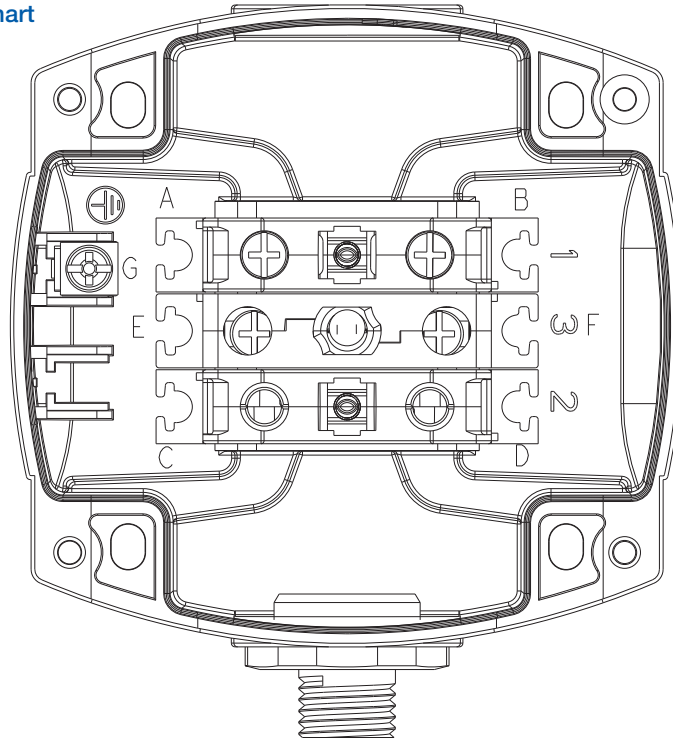
METAL  
METALL  
METALLO

1,7 Nm  
15 lb-in

4,4 Nm  
40 lb-in

M3,5  
1,2 Nm  
10 lb-in

Assembled Station Pin Out Chart



| Cat. No.      | Connector Style / No. of Pins | Location 1       | A to Pin # | B to Pin # | Location 2 | C to Pin # | D to Pin # | Location 3 | E to Pin # | F to Pin # | G to Pin # |
|---------------|-------------------------------|------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 800F-1YMQ53V  | AC Micro / 5-pin              | BX01V            | 1          | 2          | BX01V      | 4          | 5          | —          | —          | —          | 3          |
| 800F-1YMQA    | AC Micro / 6-pin              | BX01             | 1          | 5          | BX01       | 2          | 6          | BX10       | 3          | 4          | —          |
| 800F-NX1      | DC Micro / 4-pin              | BX01             | 1/4        | 2/3        | —          | —          | —          | —          | —          | —          | —          |
| 800F-1YMQ1    |                               | BX01             | 1/4        | 2/3        | —          | —          | —          | —          | —          | —          | —          |
| 800F-1YMQ2    |                               | BX10V            | 2          | 4          | BX01V      | 1          | 3          | —          | —          | —          | —          |
| 800F-1YMQ3    |                               | BX01V            | 1          | 3          | BX01V      | 2          | 4          | —          | —          | —          | —          |
| 800F-1YMQ3VEG |                               | BX01V            | 1          | 3          | BX01V      | 2          | 4          | —          | —          | —          | —          |
| 800F-1YMQ3V   |                               | DC Micro / 5-pin | BX01V      | 1          | 2          | BX01V      | 4          | 5          | —          | —          | —          |
| 800F-1YMQ41   | Mini Receptacle / 4-pin       | BX01             | 2          | 4          | —          | —          | —          | —          | —          | —          | —          |
| 800F-1YMQ44   |                               | BX10             | 1          | J          | BX01       | 2          | 4          | BN3R       | 3          | J          | J          |
| 800F-1YMQ4    | Mini Receptacle / 6-pin       | BX10             | 1          | J          | BX01       | 6          | 5          | BN3R       | 2          | J          | J          |
| 800F-1YMQ5    |                               | BX10             | 1          | J          | BX01       | 6          | 5          | BN5R       | 2          | J          | J          |
| 800F-1YMQ6    |                               | BX10             | 1          | J          | BX01       | 6          | 5          | BN7R       | 2          | J          | J          |
| 800F-1MYMQ4   |                               | BX10             | 1          | J          | BX01       | 6          | 5          | BN3R       | 2          | J          | J          |
| 800F-1MYMQ5   |                               | BX10             | 1          | J          | BX01       | 6          | 5          | BN5R       | 2          | J          | J          |
| 800F-1MYMQ6   |                               | BX10             | 1          | J          | BX01       | 6          | 5          | BN7R       | 2          | J          | J          |

J = Jumper

General Purpose Push Button Enclosures



|                                    |  |
|------------------------------------|--|
| Bulletin                           | 598  |
| <b>Description</b>                 | <b>Push Button Enclosure</b>   |
| <b>Features</b>                    | Designed to house 22.5 mm push buttons (available in grey or yellow colors)  |
| <b>Dimensions [mm]</b>             | Available in 4 sizes<br>(Height x Width x Depth)<br>1-Hole: 110 x 80 x 85<br>2-Hole: 130 x 80 x 85<br>3-Hole: 180 x 80 x 85<br>4-Hole: 250 x 80 x 85 |
| <b>Degree of Protection</b>        | Type 1, 4, 4X, 12, 13<br>IP66<br>Indoor/Outdoor  |
| <b>Storage Temperature Range</b>   | -40...+75 °C (-40...+158 °F)   |
| <b>Operating Temperature Range</b> | -40...+55 °C (-40...+131 °F)   |
| <b>Material</b>                    |  |
| <b>Enclosure</b>                   | Thermoplastic polyester blend, UL94-5VA  |
| <b>Gasket</b>                      | Foam-in-place polyurethane   |
| <b>Standards</b>                   | UL 508A and CSA C22.2, No. 14  |
| <b>Certifications</b>              | cULus, CE  |

Technical Specifications

|                              |  |
|------------------------------|--|
| <b>Product Certification</b> |  |
| Approvals/Certifications     | cULus Listed (File No. E54866; Guide No. NITW, NITW7), CE Marked |
| Degree of Protection         | Type 4, 4X, 12, and 13, IP66                                     |
| <b>Environmental</b>         |  |
| Storage Temperature Range    | -40...+75 °C (-40...+158 °F)                                     |
| Operating Temperature Range  | -40...+55 °C (-40...+131 °F)                                     |
| <b>Material</b>              |  |
| Enclosure                    | Thermoplastic polyester blend, UL94 5VA                          |
| Gasket                       | Foam-in-place polyurethane                                       |



**Operator Mounting - Vertical vs. Horizontal Definition**

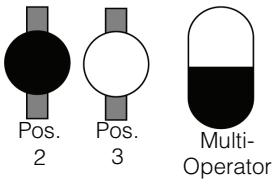
Due to the design of the enclosures, operators are mounted in both a vertical and horizontal orientation. The easiest way to visualize the operator orientation is by observing the contact block direction attached to the operators. If the contact blocks are mounted vertically the operator is mounted vertically in the enclosure. Vertical mounted operators are only found in position 2 & 3 of the 3-hole enclosure. If the contact blocks are mounted horizontally the operator is mounted horizontally in the enclosure. Horizontal mounted operators are found in position 1 of the 3-hole enclosure and all positions of the 5-...9-hole enclosures. It is necessary to know this when ordering individual operators for populating at the customer location.

**Operator Sequence when using a Mechanical Interlock**

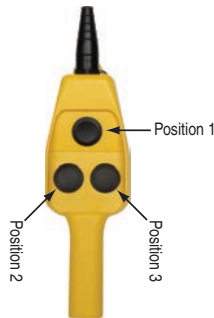
The 1-, 2-, and 3-speed operators can be mounted with either our standard **Cat. No. 800F-ALP** latch or a mechanical interlocking latch (**Cat. No. 800FC-ALP**). For the 3-hole enclosure, the mechanical interlock can only be located in positions 2 & 3, with the black operator being located in position 2 and the white operator being located in position 3. For the 5-...9-hole enclosures, the mechanical interlock can be located in any two adjacent positions. For the 5-...9-hole enclosures, the white operator will be located in position X of the mechanical interlock and the black operator will be located in position X+1 of the mechanical interlock.

**Operator Assembly Sequence and Mounting Orientation**

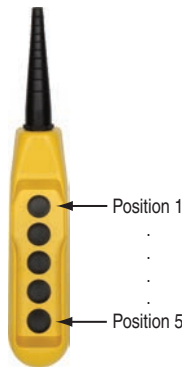
*Vertical Mount Operators*



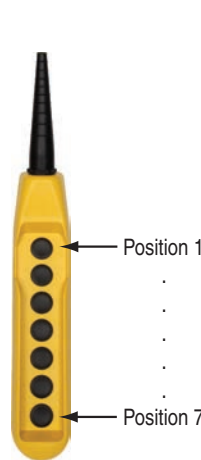
*Horizontal Mount Operators*



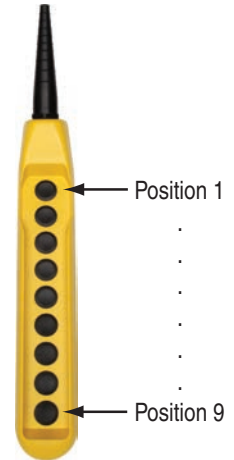
**3-Hole Enclosure★**



**5-Hole Enclosure‡**



**7-Hole Enclosure‡**



**9-Hole Enclosure‡**

★ Operator in Position 1 is mounted horizontal, contact blocks are horizontal. Operators in Positions 2 & 3 are mounted vertical, contact blocks are vertical.  
 ‡ Operators in all positions are mounted horizontal, contact blocks are horizontal.

1-, 2-, and 3-Speed Operators  $\clubsuit\Delta$

800FP – C  $\frac{A}{a}$   $\frac{1}{b}$   $\frac{U243}{c}$



a

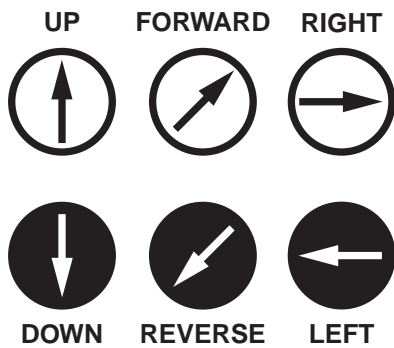
| Operator Type |                      |
|---------------|----------------------|
| Code          | Description          |
| A             | 1-speed single arrow |
| D             | 1-speed double arrow |
| B             | 2-speed              |
| C             | 3-speed $\ddagger$   |

$\ddagger$  Proper contact block assembly of these devices is required.

b

| Cap Color |             |
|-----------|-------------|
| Code      | Description |
| 1         | White       |
| 2         | Black       |

Arrow Direction Chart



c

|  |      | Symbol                 |                                |                        |                        |                     |       |
|--|------|------------------------|--------------------------------|------------------------|------------------------|---------------------|-------|
|  |      | Code                   | Valid with Table a Selections: | Description $\S$       |                        |                     |       |
|  |      |                        |                                | Vertical Mounting      |                        | Horizontal Mounting |       |
|  |      | Black with White Arrow | White with Black Arrow         | White with Black Arrow | Black with White Arrow |                     |       |
|  |      | U100                   | A, B, C                        | Blank                  | Blank                  | Blank               | Blank |
|  |      | One-Speed Operators    |                                |                        |                        |                     |       |
|  | U241 | A                      | DOWN                           | UP                     | —                      | —                   |       |
|  | U243 |                        | —                              | —                      | RIGHT                  | LEFT                |       |
|  | U244 |                        | REVERSE                        | FORWARD                | —                      | —                   |       |
|  | U246 |                        | —                              | —                      | FORWARD                | REVERSE             |       |
|  | U700 |                        | LEFT                           | RIGHT                  | UP                     | DOWN                |       |
|  | U261 | D                      | DOWN FAST                      | UP FAST                | —                      | —                   |       |
|  | U263 |                        | —                              | —                      | RIGHT FAST             | LEFT FAST           |       |
|  | U264 |                        | REVERSE FAST                   | FORWARD FAST           | —                      | —                   |       |
|  | U266 |                        | —                              | —                      | FORWARD FAST           | REVERSE FAST        |       |
|  | U260 |                        | LEFT FAST                      | RIGHT FAST             | UP FAST                | DOWN FAST           |       |
|  |      | Two-Speed Operators    |                                |                        |                        |                     |       |
|  | U271 | B                      | 2-speed DOWN                   | 2-speed UP             | —                      | —                   |       |
|  | U273 |                        | —                              | —                      | 2-speed RIGHT          | 2-speed LEFT        |       |
|  | U274 |                        | 2-speed REVERSE                | 2-speed FORWARD        | —                      | —                   |       |
|  | U276 |                        | —                              | —                      | 2-speed FORWARD        | 2-speed REVERSE     |       |
|  | U270 |                        | 2-speed LEFT                   | 2-speed RIGHT          | 2-speed UP             | 2-speed DOWN        |       |
|  |      | Three-Speed Operators  |                                |                        |                        |                     |       |
|  | U291 | C                      | 3-speed DOWN                   | 3-speed UP             | —                      | —                   |       |
|  | U293 |                        | —                              | —                      | 3-speed RIGHT          | 3-speed LEFT        |       |
|  | U294 |                        | 3-speed REVERSE                | 3-speed FORWARD        | —                      | —                   |       |
|  | U296 |                        | —                              | —                      | 3-speed FORWARD        | 3-speed REVERSE     |       |
|  | U290 |                        | 3-speed LEFT                   | 3-speed RIGHT          | 3-speed UP             | 3-speed DOWN        |       |

**Note:** Please consult your local Rockwell Automation sales office or Allen-Bradley distributor for proper latch and contact block configurations.

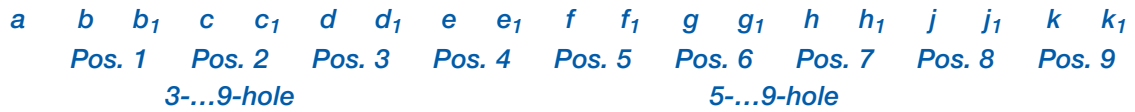
$\S$  Text (DOWN, UP, LEFT, etc.) indicates arrow direction. Text is **not** printed on operators.

$\clubsuit$  Cat. No. 800F-ALP (standard latch) and Cat. No. 800FC-ALP (mechanical interlock latch) can be used with these operators.

$\Delta$  Booted style of operators for pendant stations.

Catalog Number Explanation  
Configured Pendant Stations

800FC –



**Note:** A code from Tables *b...k* and *b<sub>1</sub>...k<sub>1</sub>* must be specified for each operator to create a valid cat. no.

*a*

|                       |              | Enclosure Code |        |        |        |
|-----------------------|--------------|----------------|--------|--------|--------|
|                       |              | 3-Hole         | 5-Hole | 7-Hole | 9-Hole |
| Voltage <sup>12</sup> | Legend Plate | Code           | Code   | Code   | Code   |
| 24V AC/DC             | No           | 2              | 4      | 6      | 8      |
|                       |              | 3              | 5      | 7      | 9      |
| 24V AC/DC             | Yes          | A              | C      | E      | G      |
|                       |              | B              | D      | F      | H      |

*b...k*

| Operator Type  |  |                                   |
|--|--|-----------------------------------|
| Single Speed Operators for use with Mechanical Interlock <sup>§V&amp;11</sup>      |  |                                   |
| Code   | Description  | Legend Plate Text (When Selected) |
| A2   | Black operator (no text or symbol)                                 | Blank                             |
| AB   | Black operator with arrow (reverse — down/left)                    | O/H CRANE, REVERSE                |
| AD   | Black operator with arrow (down)                                   | LIFT, DOWN                        |
| AL   | Black operator with arrow (left)                                   | HOIST, LEFT                       |
| A1   | White operator (no text or symbol)                                 | Blank                             |
| AF   | White operator with arrow (forward — up/right)                     | O/H CRANE, FORWARD                |
| AR   | White operator with arrow (right)                                  | HOIST, RIGHT                      |
| AU   | White operator with arrow (up)                                     | LIFT, UP                          |
| Fast Single Speed Operators for use with Mechanical Interlock <sup>§V&amp;11</sup> |  |                                   |
| Code   | Description  | Legend Plate Text (When Selected) |
| DB   | Black operator with <b>double</b> arrow (reverse fast — down/left) | O/H CRANE, REVERSE, FAST          |
| DD   | Black operator with <b>double</b> arrow (down fast)                | LIFT, DOWN FAST                   |
| DL   | Black operator with <b>double</b> arrow (left fast)                | O/H CRANE, LEFT FAST              |
| DF   | White operator with <b>double</b> arrow (forward fast — up/right)  | O/H CRANE, FORWARD, FAST          |
| DR   | White operator with <b>double</b> arrow (right fast)               | O/H CRANE, RIGHT FAST             |
| DU   | White operator with <b>double</b> arrow (up fast)                  | LIFT, UP FAST                     |
| Two-Speed Operators for use with Mechanical Interlock <sup>§V&amp;11</sup>         |  |                                   |
| Code   | Description  | Legend Plate Text (When Selected) |
| B2   | Black operator (no text or symbol)                                 | Blank                             |
| BB   | Black operator with arrow (reverse — down/left)                    | 1-2 SPEED, O/H CRANE, REVERSE     |
| BD   | Black operator with arrow (down)                                   | 1-2 SPEED, LIFT, DOWN             |
| BL   | Black operator with arrow (left)                                   | 1-2 SPEED, HOIST, LEFT            |
| B1   | White operator (no text or symbol)                                 | Blank                             |
| BF   | White operator with arrow (forward — up/right)                     | 1-2 SPEED, O/H CRANE, FORWARD     |
| BR   | White operator with arrow (right)                                  | 1-2 SPEED, HOIST, RIGHT           |
| BU   | White operator with arrow (up)                                     | 1-2 SPEED, LIFT, UP               |
| Three-Speed Operators for use with Mechanical Interlock <sup>§*ΔV&amp;11</sup>     |  |                                   |
| Code   | Description  | Legend Plate Text (When Selected) |
| C2   | Black operator (no text or symbol)                                 | Blank                             |
| CB   | Black operator with arrow (reverse — down/left)                    | 1-2-3 SPEED, O/H CRANE, REVERSE   |
| CD   | Black operator with arrow (down)                                   | 1-2-3 SPEED, LIFT, DOWN           |
| CL   | Black operator with arrow (left)                                   | 1-2-3 SPEED, HOIST, LEFT          |
| C1   | White operator (no text or symbol)                                 | Blank                             |
| CF   | White operator with arrow (forward — up/right)                     | 1-2-3 SPEED, O/H CRANE, FORWARD   |
| CR   | White operator with arrow (right)                                  | 1-2-3 SPEED, HOIST, RIGHT         |
| CU   | White operator with arrow (up)                                     | 1-2-3 SPEED, LIFT, UP             |

- <sup>12</sup> Enclosure code is always required. Voltage is used to select LEDs for illuminated operators. Standard contact blocks are used for both 24V and 120V enclosures.
- \* Only available in position 1 of a 3-hole enclosure and in positions 1 & 2 of a 5-...9-hole enclosure.
- ‡ Monolithic style device provided.
- § For a 3-hole enclosure, when a mechanical interlock (c1 & d1 = M or B) is selected with a 1-...3-speed operator, the black operator will be located in position 2 of the enclosure and the opposite white operator will be placed in position 3 of the enclosure (Example: ABMAFM or BDMBUM). For a 5-...9-hole enclosure, when a mechanical interlock (b1...k1 = M or B) is selected with a 1-...3-speed operator, the white operator will be located in position X of the mechanical interlock and the opposite black operator will be placed in position X+1 of the mechanical interlock (Example: AFMABM or BUMBDM).
- ♣ Interlock and/or rubber boot selection = N (no interlock, no additional boots) is **not** allowed.
- Δ Interlock and/or rubber boot selection = E (electrical interlock, no additional boots) is **not** allowed.
- ♦ Interlock and/or rubber boot selection = M (mechanical interlock) is **not** allowed.
- ♠ Interlock and/or rubber boot selection = B (electrical and mechanical interlock) is **not** allowed.
- ∇ Interlock and/or rubber boot selection = R (no interlock, additional rubber boot) is **not** allowed.
- & Interlock and/or rubber boot selection = S (electrical interlock, additional rubber boot) is **not** allowed.
- # Only available in position 1 for a 3-hole enclosure, positions 1 and/or 5 for a 5-hole enclosure, positions 1 and/or 7 for a 7-hole enclosure, and positions 1 and/or 9 for a 9-hole enclosure.
- <sup>11</sup> For proper installation, a trim washer or Cat. No. 800F-36\_ legend plate must be installed with this operator.

*b<sub>1</sub>...k<sub>1</sub>*

| Interlock and/or Rubber Boot |   |
|------------------------------|---|
| Code                         | Description   |
| N                            | No interlock, no additional boots                     |
| E                            | Electrical interlock, no additional boots             |
| M                            | Mechanical interlock, boots standard §                |
| B                            | Electrical and mechanical interlock, boots standard § |
| R                            | No interlock, additional rubber boot                  |
| S                            | Electrical interlock, additional rubber boot          |

*b...k, continued*

| Operator Type  |  |                                   |
|--|--|-----------------------------------|
| Emergency Stop Operators $\star\Delta\blacklozenge\blacktriangle\blacktriangledown\&$                |  |                                   |
| Code   | Description  | Legend Plate Text (When Selected) |
| MT   | Red operator — twist-to-release                                    | Not provided                      |
| ME   | Illuminated red operator — twist-to-release                        |                                   |
| MK   | Red operator — keyed twist-to-release                              |                                   |
| MM   | Red operator — twist-to-release/push-pull $\ddagger$               |                                   |
| MG   | Red operator with guard — twist-to-release/push-pull $\ddagger$    |                                   |
| Standard Extended Push Buttons — Non-Illuminated $\blacklozenge\blacktriangle$                       |  |                                   |
| Code   | Description  | Legend Plate Text (When Selected) |
| E2   | Black operator (no text or symbol)                                 | Blank                             |
| ED   | Black operator with arrow (down)                                   | LIFT, DOWN                        |
| EL   | Black operator with arrow (left)                                   | HOIST, LEFT                       |
| EB   | Black operator with arrow (reverse — down/left)                    | O/H CRANE, REVERSE                |
| FD   | Black operator with <b>double</b> arrow (down fast)                | LIFT, DOWN FAST                   |
| FL   | Black operator with <b>double</b> arrow (left fast)                | O/H CRANE, LEFT FAST              |
| FB   | Black operator with <b>double</b> arrow (reverse fast — down/left) | O/H CRANE, REVERSE, FAST          |
| E1   | White operator (no text or symbol)                                 | Blank                             |
| EU   | White operator with arrow (up)                                     | LIFT, UP                          |
| ER   | White operator with arrow (right)                                  | HOIST, RIGHT                      |
| EF   | White operator with arrow (forward — up/right)                     | O/H CRANE, FORWARD                |
| FU   | White operator with <b>double</b> arrow (up fast)                  | LIFT, UP FAST                     |
| FR   | White operator with <b>double</b> arrow (right fast)               | O/H CRANE, RIGHT FAST             |
| FF   | White operator with <b>double</b> arrow (forward fast — up/right)  | O/H CRANE, FORWARD, FAST          |
| E3   | Green operator (no text or symbol) $\Delta\&$                      | Blank                             |
| EQ   | Green operator with Start/Alarm symbol $\Delta\&$                  | START, ALARM                      |
| EN   | Green operator with Start symbol $\Delta\&$                        | START                             |
| E4   | Red operator (no text or symbol) $\Delta\&$                        | Blank                             |
| ES   | Red operator with Stop symbol $\Delta\&$                           | STOP                              |
| E5   | Yellow operator (no text or symbol) $\Delta\&$                     | Blank                             |
| EA   | Yellow operator with Alarm symbol $\Delta\&$                       | ALARM                             |
| E6   | Blue operator (no text or symbol) $\Delta\&$                       | Blank                             |
| R6   | Blue operator with R $\Delta\&$                                    | RESET                             |
| Standard Extended Push Buttons — Illuminated $\Delta\blacklozenge\blacktriangle\blacktriangledown\&$ |  |                                   |
| Code   | Description  | Legend Plate Text (When Selected) |
| L3   | Green operator (no text or symbol)                                 | Blank                             |
| L4   | Red operator (no text or symbol)                                   | Blank                             |
| L5   | Yellow operator (no text or symbol)                                | Blank                             |
| L6   | Blue operator (no text or symbol)                                  | Blank                             |
| L7   | Clear operator (no text or symbol)                                 | Blank                             |
| Selector Switches $\Delta\blacklozenge\blacktriangle\blacktriangledown\&$                            |  |                                   |
| Code   | Description  | Legend Plate Text (When Selected) |
| SH   | 2-position   | Standard-maintained               |
| KH   |  | Keyed-maintained                  |
| SJ   | 3-position   | Standard-maintained               |
| KJ   |  | Keyed-maintained                  |

**Note:** Footnote explanations on previous page.

*b...k, continued*

| Operator Type   |  |                                   |
|---|--|-----------------------------------|
| 2- Function Multi-Operator Push Buttons $\Delta\blacklozenge\blacktriangle\blacktriangledown\&$ |  |                                   |
| Code  | Description  | Legend Plate Text (When Selected) |
| VV  | Black/white operator with arrow (down & up)  | Not provided                      |
| VW  | Black/white operator with arrow (left & right)   |                                   |
| VX  | Black/white operator with arrow (reverse & forward)  |                                   |
| WV  | Black/white operator, illuminated, with arrow (down & up)                                  |                                   |
| WW  | Black/white operator, illuminated, with arrow (left & right)                               |                                   |
| WX  | Black/white operator, illuminated, with arrow (reverse & forward)                          |                                   |
| XV  | Black/white operator with <b>double</b> arrows (down fast & up fast)                       |                                   |
| XW  | Black/white operator with <b>double</b> arrows (left fast & right fast)                    |                                   |
| XX  | Black/white operator with <b>double</b> arrows (reverse fast & forward fast)               |                                   |
| YV  | Black/white operator, illuminated, with <b>double</b> arrows (down fast & up fast)         |                                   |
| YW  | Black/white operator, illuminated, with <b>double</b> arrows (left fast & right fast)      |                                   |
| YX  | Black/white operator, illuminated, with <b>double</b> arrows (reverse fast & forward fast) |                                   |
| Pilot Lights $\ddagger\Delta\blacklozenge\blacktriangle\blacktriangledown\&$                    |  |                                   |
| Code  | Description  | Legend Plate Text (When Selected) |
| P0  | Amber LED  | Blank                             |
| P3  | Green LED  | Blank                             |
| P4  | Red LED  | Blank                             |
| P5  | Yellow LED   | Blank                             |
| P6  | Blue LED   | Blank                             |
| P7  | Clear LED  | Blank                             |
| Potentiometers $\Delta\blacklozenge\blacktriangle\blacktriangledown\&\#$                        |  |                                   |
| Code  | Description  | Legend Plate Text (When Selected) |
| 1P  | Black operator — 150 $\Omega$  | Blank                             |
| 2P  | Black operator — 500 $\Omega$  | Blank                             |
| 3P  | Black operator — 1000 $\Omega$   | Blank                             |
| 4P  | Black operator — 2500 $\Omega$   | Blank                             |
| 5P  | Black operator — 5000 $\Omega$   | Blank                             |
| 6P  | Black operator — 10 000 $\Omega$   | Blank                             |
| Hole Plug $\Delta\blacklozenge\blacktriangle\blacktriangledown\&$                               |  |                                   |
| Code  | Description  | Legend Plate Text (When Selected) |
| N2  | Black hole plug  | Blank                             |

*b<sub>1</sub>...k<sub>1</sub>*

| Interlock and/or Rubber Boot |  |
|------------------------------|--|
| Code                         | Description  |
| N                            | No interlock, no additional boots                        |
| E                            | Electrical interlock, no additional boots                |
| M                            | Mechanical interlock, boots standard $\S$                |
| B                            | Electrical and mechanical interlock, boots standard $\S$ |
| R                            | No interlock, additional rubber boot                     |
| S                            | Electrical interlock, additional rubber boot             |

## Specifications★

## Front-of-Panel (Operators)

| Description   |  | Mechanical Ratings  |
|---|--|---|
|   |  | Plastic (Bulletin 800FP)  |
| Vibration (assembled to panel)                                |  | Tested at 10...2000 Hz, 1.52 mm displacement (peak-to-peak) max./10 G max. for 3 hr duration, no damage |
| Shock   |  | Tested at 1/2 cycle sine wave for 11 ms; no damage at 100 G   |
| Degree of protection‡   |  | IP66 (Type 4/4X/13)   |
| 10 000 000 Cycles   |  | Momentary push buttons  |
| 1 000 000 Cycles  |  | Multi-function, selector switch, key selector switch  |
| 300 000 Cycles  |  | Twist-to-release E-stop, illuminated push-pull E-stop, alternate action push buttons                    |
| 100 000 Cycles  |  | Potentiometer, toggle switch  |
| Operating forces (typical with one contact block)             |  | Flush/extended = 5 N, E-stop = 36 N   |
| Operating torque (typical application with one contact block) |  | Selector switch = 0.25 N•m (2.2 lb•in)  |
| Mounting torque   |  | 1.7 N•m (15 lb•in)  |
|   |  | Environmental   |
| Temperature range (operating)                                 |  | -25...+70 °C (-13...+158 °F)§   |
| Temperature range (short term storage)                        |  | -40...+85 °C (-40...+185 °F)  |
| Humidity  |  | 50...95% RH from 25...60 °C (77...140 °F)   |

★ Performance Data — see note on page 3.

‡ Plastic keyed operators are IP66, Type 4/13; not Type 4X.

§ Operating temperatures below 0 °C (32 °F) are based on the absence of freezing moisture and liquids, UL Recognized to 55 °C (131 °F) - Incandescent module max. 40 °C (104 °F) - fully populated 9-hole pendant enclosure 45 °C (113 °F) with 75 °C wire.

**Note:** Use UL Listed type S or SJ cords, with a smooth outer jacket rated for wet locations use (marked W) and oil resistant outer covering (marked O) such as SOW or SJOW with copper wire, rated 75 °C min., 18...12 AWG, with an overall OD of 7.5...15 mm for the small cable sleeve (**Cat. No. 800FC-AS3**) and 9...22.5 mm for the large cable sleeve (**Cat. No. 800FC-AS5**).

## Product Certifications

|                         |  |
|-------------------------|--|
| Certifications          | UR/UL, CSA, CCC, CE  |
| Standards Compliance    | NEMA ICS-5, UL 508, CSA C22.2 No. 14, EN ISO 13850, EN 60947-1, EN 60947-5-1, EN 60947-5-5 |
| Terminal Identification | EN/IEC 60947-1   |
| RoHS                    | ✓  |

## Material Listing

| Component                           | For Use with   | Material Used                           |
|-------------------------------------|--|---|
| Panel gasket                        | All operators  | Nitrile, TPE                            |
| Diaphragm seal                      | Illuminated push button, non-illuminated push button   | Automotive industry acceptable silicone |
| K-seal                              | Selector switch, key selector switch, push/twist-to-release E-stop, key E-stop   | Nitrile                                 |
| Diaphragm retainer, return spring I | Illuminated push button, non-illuminated push button   | Stainless steel                         |
| Return spring II                    | Selector switch, key selector switch, alternate action, push/twist-to-release E-stop, key E-stop   | Zinc-coated music wire                  |
| Button cap                          | Non-illuminated push button, push/twist-to-release, E-stop, key E-stop, multi-function   | PBT/polycarbonate blend                 |
| 2-color molded button cap           | Non-illuminated push button  | PBT/polycarbonate blend                 |
| Lens                                | Multi-function   | Acetal                                  |
| Lens, knob                          | Illuminated push button  | Polyamide                               |
| Knob                                | Non-illuminated selector switch  | Glass-filled polyamide                  |
| Plastic bezel/bushing I             | Non-illuminated push button, illuminated push button, selector switch, key selector switch, push/twist-to-release E-stop, key E-stop, multi-function | Glass-filled polyamide                  |
| Plastic bezel/bushing II            | Pilot light  | Glass-filled PBT                        |
| Diffuser                            | Illuminated push button, pilot light   | Polycarbonate                           |
| Plastic mounting ring               | All plastic operators  | Glass-filled polyamide                  |
| Plastic latch                       | —  | Glass-filled polyamide                  |
| Mechanical interlock latch          | —  | Glass-filled polyamide                  |
| Plastic enclosure                   | —  | PBT/polycarbonate blend                 |
| Terminal screws                     | LED module, contact blocks   | Zinc-plated steel with chromate         |
| Terminals                           | LED module, contact blocks   | Brass with silver-nickel contacts       |
| Housing                             | LED module   | Glass-filled polyamide                  |
| Low-voltage terminals               | Contact blocks   | Gold-plated silver-nickel contacts      |
| Low-voltage spanner                 | Contact blocks   | Gold-plated silver-nickel contacts      |
| Spanner                             | Contact blocks   | Brass with silver-nickel contacts       |
| Boot                                | Illuminated push button, non-illuminated push button, multi-function illuminated and non-illuminated   | Automotive industry acceptable silicone |

Back-of-Panel Components

| Electrical Ratings  |                              |   |              |
|---|------------------------------|---|--------------|
| Standard contact block ratings                            |                              | A600, Q600<br>600V AC<br>AC 15, DC 13 to IEC/EN 60947-5-1 and UL 508, 17V, 5 mA min.              |              |
| Low voltage contact block ratings*                        |                              | 5V, 1 mA DC min.<br>C300, R150, AC 15, DC 13 to EN 60947-5-1 and UL 508                           |              |
| Nominal Voltage   |                              | Range   | Current Draw |
| LED Module Ratings  | 24V AC                       | 10...29V AC   | 31 mA        |
|   | 24V DC                       | 10...30V DC   | 24 mA        |
|   | 120V AC                      | 70...132V AC  | 25 mA        |
|   | 240V AC                      | 180...264V AC   | 22 mA        |
| Frequency   |                              | 50/60 Hz  |              |
| Thermal current   |                              | 10 A max. enclosed (40 °C ambient) to UL508, EN 60947-5-1   |              |
| Insulation voltage (U <sub>i</sub> )                      |                              | Screw terminal = 690V, spring-clamp = 300V  |              |
| Wire capacity (screw terminal)‡                           |                              | #18...12 AWG (0.75...2.5 mm <sup>2</sup> )<br>Max. (2) #14 AWG or (1) #12 AWG                     |              |
| Wire capacity (spring-clamp terminal)                     |                              | #18...14 AWG (0.75...1.5 mm <sup>2</sup> ) One per spring clamp, two spring clamps per terminal   |              |
| Recommended tightening torque on screw terminals          |                              | 0.7...0.9 N•m (6...8 lb•in)   |              |
| Dielectric strength (minimum)                             |                              | 2500V for one minute  |              |
| External short circuit protection                         | Standard blocks              | 10 A type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class C to UL 248-4) |              |
|   | Low voltage contact blocks   | 6 A type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class C to UL 248-4)  |              |
| Electrical shock protection                               |                              | Finger-safe conforming to IP2X  |              |
| Mechanical Ratings  |                              |   |              |
| Vibration (assembled to panel)                            |                              | Tested at 10...2000 Hz, 1.52 mm displacement (peak-to-peak) max./10 G max. 6 hr                   |              |
| Shock   |                              | Tested at 1/2 cycle sine wave for 11 ms and no damage at 100 G max.                               |              |
| Contact durability per EN 60947-5-1 (Annex C)             |                              | 10 000 000 cycles   |              |
| Contact operation   | N.O.                         | Slow double make and break  |              |
|   | N.C.                         | Slow double make and break — positive opening<br>⊖  |              |
|   | N.O.E.M.                     | Double break / double make, early make  |              |
|   | N.C.L.B.                     | Double break / double make, late break — positive opening<br>⊖                                    |              |
|   | N.C.E.B.                     | Double break / double make, early break — positive opening<br>⊖                                   |              |
|   | N.O.E.E.M.                   | Double break / double make, early early make  |              |
| Standard push button travel to change electrical state    | N.C. and N.O.E.M.            | 1.5 mm (0.060 in.)  |              |
|   | N.O. and N.C.L.B.            | 2.5 mm (0.1 in.)  |              |
| Multi-speed push button travel to change electrical state | N.O.E.E.M.                   | 3 mm (0.12 in.)   |              |
|   | N.C.E.B.                     | 4 mm (0.16 in.)   |              |
| Operating forces (typical)                                | N.O.L.M.                     | 7 mm (0.28 in.)   |              |
|   | Single-circuit contact block | 3.4 N   |              |
| Dual-circuit contact block                                | 5...6.5 N                    |   |              |
| Illumination  |                              |   |              |
| LED Dominant Wavelength                                   | Green                        | 525 nm  |              |
|   | Red                          | 629 nm  |              |
|   | Yellow                       | 590 nm  |              |
|   | Blue                         | 470 nm  |              |
|   | White                        | —   |              |
| LED Luminous Intensity                                    | Green                        | 780 mcd   |              |
|   | Red                          | 780 mcd   |              |
|   | Yellow                       | 600 mcd   |              |
|   | Blue                         | 168 mcd   |              |
|   | White                        | 360 mcd   |              |
| Materials   |                              |   |              |
| Springs   |                              | Stainless steel and zinc coated music wire  |              |
| Electrical contacts                                       | Standard                     | Silver-nickel   |              |
|   | Low voltage                  | Gold-plated over silver   |              |
| Terminals   | Screw                        | Brass   |              |
|   | Spring-clamp                 | Silver-plated brass   |              |

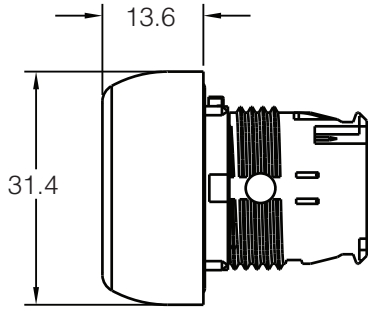
\* Performance Data — see note on page 3.

\* Low voltage contacts are recommended for applications below 17V, 5 mA.

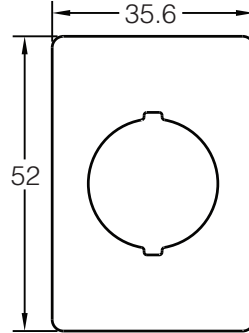
‡ Wires less than #18 AWG (0.75 mm<sup>2</sup>) may not hold in terminal securely.

Approximate Dimensions ★

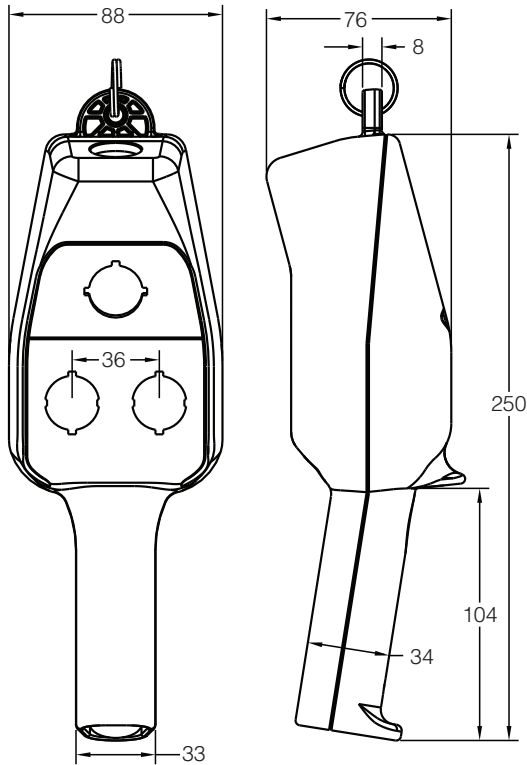
Bul. 800FC 1-, 2-, and 3-Speed Operator



Bul. 800FC Legend Plate

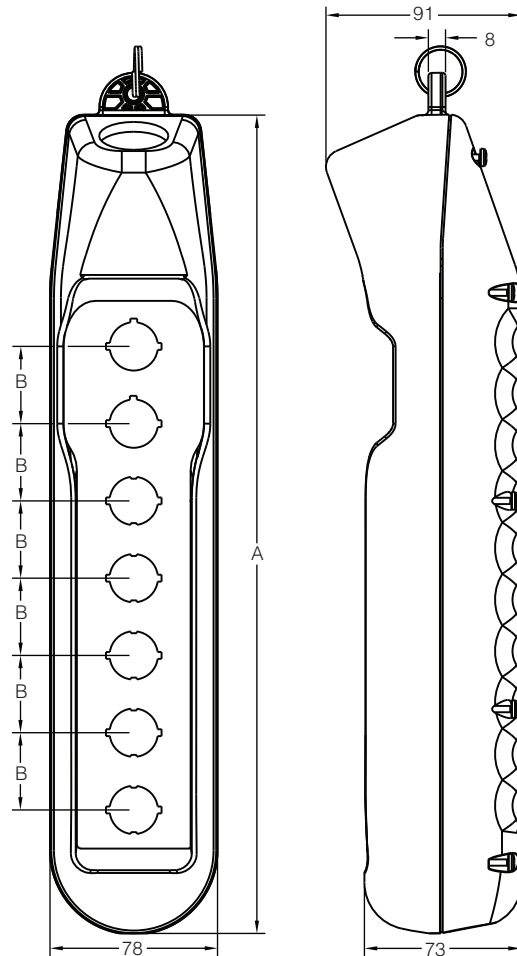


Bul. 800FC Pendant Station (3-Hole)



Bul. 800FC Pendant Station (5-, 7-, and 9-Hole)

| Cat. No.      | No. of Holes | A   | B  |
|---------------|--------------|-----|----|
| 800FC-4/5/C/D | 5            | 309 | 36 |
| 800FC-6/7/E/F | 7            | 381 | 36 |
| 800FC-8/9/G/H | 9            | 453 | 36 |

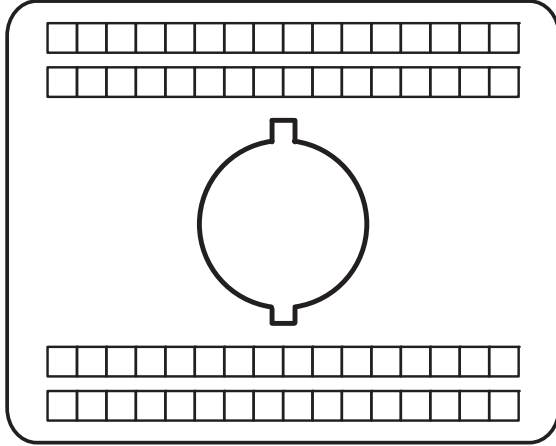


★ For Bul. 800F operator dimensions, see page 33.

Custom Text Fax/Scan Sheet

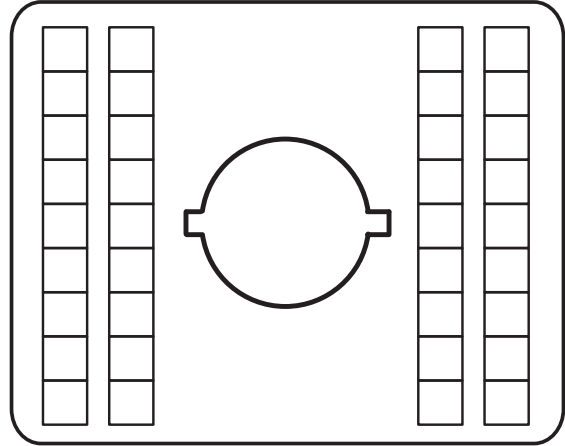
Order/Item \_\_\_\_\_

**Vertical Mounting**

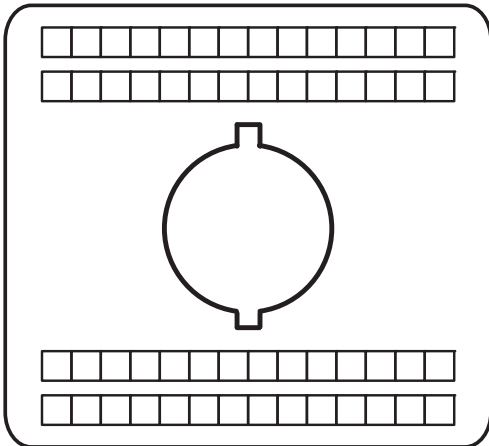


**Cat. No. 800F-36VE100K**

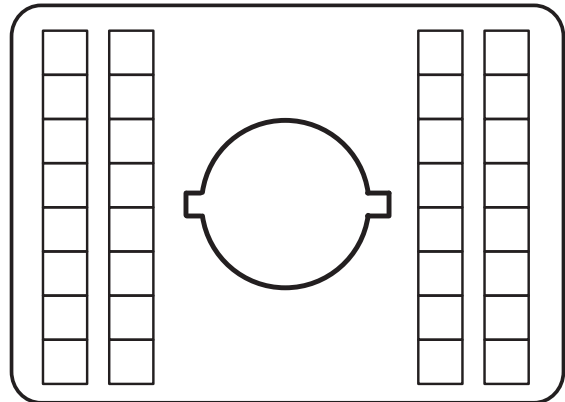
**Horizontal Mounting**



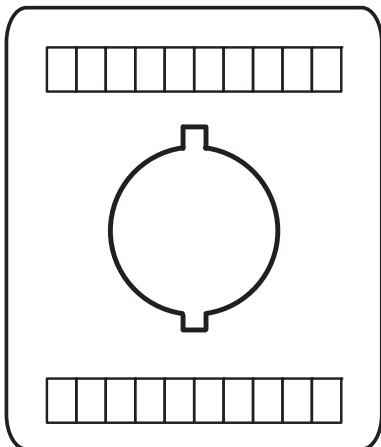
**Cat. No. 800F-36HE100K**



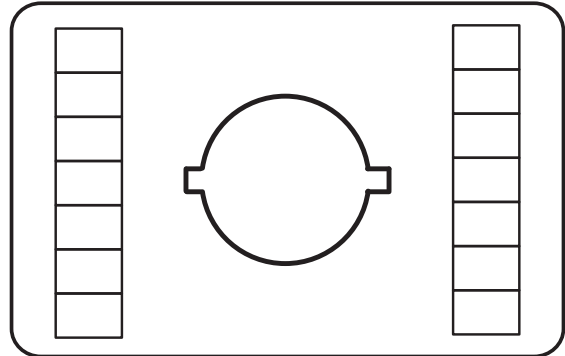
**Cat. No. 800F-36VE100S**



**Cat. No. 800F-36HE100S**



**Cat. No. 800F-36VE100L**



**Cat. No. 800F-36HE100L**



Momentary Push Button Operators, Non-Illuminated



800FD – F 3 01 X 11  
*a* *b* *c* *d* *e*

*a*

| Operator Type |             |
|---------------|-------------|
| Code          | Description |
| F             | Flush       |
| E             | Extended    |

*b*

| Color Cap |        |
|-----------|--------|
| Code      | Color  |
| 1         | White  |
| 2         | Black  |
| 3         | Green  |
| 4         | Red    |
| 5         | Yellow |
| 6         | Blue   |

*c*

| Legend Text *‡ |                 |
|----------------|-----------------|
| Code           | Text            |
| —              | No text (blank) |
| 01             | START           |
| 02             | STOP            |
| 05             | O               |
| 06             | I               |
| 08             | →               |
| 09             | FORWARD         |
| 10             | REVERSE         |
| 11             | R               |

\* White and yellow caps have black text. All other color caps have white text.

‡ Valid color cap/legend text combinations are as follows:

| Color  | Text                             |                 |
|--------|----------------------------------|-----------------|
|        | Flush Caps                       | Extended Caps   |
| White  | START, I, →, FORWARD, REVERSE, R | →, R            |
| Black  | →, FORWARD, REVERSE, R           | STOP, O, →, R § |
| Green  | START, I, →, FORWARD, REVERSE    | →               |
| Red    | →, FORWARD, REVERSE              | STOP, O, → §    |
| Yellow | →, FORWARD, REVERSE              | →               |
| Blue   | →, FORWARD, REVERSE, R           | →, R            |

§ "STOP" or "O" color cap/legend text are not available for "10" or "20" contact modules.

*d*

| Termination Style |                |
|-------------------|----------------|
| Code              | Description    |
| X                 | Standard screw |
| R                 | Ring lug       |

*e*

| Contact Module |                |                |
|----------------|----------------|----------------|
| Code           | Number of N.O. | Number of N.C. |
| 01             | 0              | 1              |
| 10             | 1              | 0              |
| 11             | 1              | 1              |
| 02             | 0              | 2              |
| 20             | 2              | 0              |

Pilot Light Devices — LED



800FD - P 3 N 7         
*a* *b* *c*

*a*

| Lens Cap |        |
|----------|--------|
| Code     | Color  |
| 0        | Amber  |
| 3        | Green  |
| 4        | Red    |
| 5        | Yellow |
| 6        | Blue   |
| 7        | Clear  |

*b*

| Voltage |           |
|---------|-----------|
| Code    | Type      |
| 3       | 24V AC/DC |
| 5       | 120V AC   |
| 7       | 240V AC   |

*c*

| Termination Style |                |
|-------------------|----------------|
| Code              | Description    |
| Blank             | Standard screw |
| R                 | Ring lug       |

Pilot Light Devices — Incandescent

800FD - P 3 D 5         
*a* *b* *c*

*a*

| Lens Cap |          |
|----------|----------|
| Code     | Color    |
| 0        | Amber    |
| 3        | Green    |
| 4        | Red      |
| 5        | Yellow   |
| 6        | Blue     |
| 7        | Clear    |
| 9        | No lens★ |

*b*

| Voltage |            |
|---------|------------|
| Code    | Type       |
| 0       | No Bulb‡   |
| 1       | 6V AC/DC   |
| 2       | 12V AC/DC  |
| 3       | 24V AC/DC  |
| 4       | 48V AC/DC  |
| 5       | 120V AC/DC |

*c*

| Termination Style |                |
|-------------------|----------------|
| Code              | Description    |
| Blank             | Standard screw |
| R                 | Ring lug       |

★ Only valid with "no bulb" option.

‡ Only valid with "no lens" option.

Selector Switch Operators, Non-Illuminated



800FD – S L 3 2 X 11  
*a* *b* *c*

| Operator Function |                               |
|-------------------|-------------------------------|
| Code              | Description                   |
| M2                | Maintained, 2-position        |
| L2                | Return from left, 2-position  |
| R2                | Return from right, 2-position |
| M3                | Maintained, 3-position        |
| L3                | Return from left, 3-position  |
| R3                | Return from right, 3-position |
| B3                | Return from both, 3-position  |

| Termination Style |                |
|-------------------|----------------|
| Code              | Description    |
| X                 | Standard screw |
| R                 | Ring lug       |

| Contact Module |                |                |
|----------------|----------------|----------------|
| Code           | Number of N.O. | Number of N.C. |
| 01‡            | 0              | 1              |
| 10‡            | 1              | 0              |
| 11             | 1              | 1              |
| 02             | 0              | 2              |
| 20             | 2              | 0              |

‡ Only available for 2-position selector switch.

| 2-Position Selector Switch |      |       |      |       |
|----------------------------|------|-------|------|-------|
| Knob Position              | ↙    |       | ↘    |       |
|                            | Left | Right | Left | Right |
| 01                         | X    | —     | O    | —     |
| 10                         | —    | O     | —    | X     |
| 11                         | X    | O     | O    | X     |
| 02                         | X    | X     | O    | O     |
| 20                         | O    | O     | X    | X     |

| 3-Position Selector Switch |      |       |      |       |      |       |
|----------------------------|------|-------|------|-------|------|-------|
| Knob Position              | ↙    |       | ↑    | ↘     |      |       |
|                            | Left | Right | Left | Right | Left | Right |
| 11                         | O    | O     | X    | O     | X    | X     |
| 02                         | O    | X     | X    | X     | X    | O     |
| 20                         | X    | O     | O    | O     | O    | X     |

Note: X = Closed/O = Open

Note: X = Closed/O = Open

2-Position Push-Pull/Twist-to-Release Mushroom Operators, Non-Illuminated§Δ



800FD – MT4 4 X 11  
*a* *b* *c*

| Color Cap |             |
|-----------|-------------|
| Code      | Description |
| 2         | Black       |
| 3         | Green       |
| 4         | Red         |
| 4E        | Red - EMO   |
| 5         | Yellow      |
| 6         | Blue        |

| Termination Style |                |
|-------------------|----------------|
| Code              | Description    |
| X                 | Standard screw |
| R                 | Ring lug       |


| Contact Module★ |                |                |
|-----------------|----------------|----------------|
| Code            | Number of N.O. | Number of N.C. |
| 01              | 0              | 1              |
| 11              | 1              | 1              |
| 02              | 0              | 2              |

★ E-stops must contain at least one N.C. circuit.

§ All E-stop operators are EN/ISO 13850 compliant when using at least one N.C. contact block.

Δ E-Stop operators, latch, and contact block combinations have been third-party tested for B10d values. B10d values can be found in publication SAFETY-SR001\_EN-E.

## Specifications★

| Mechanical Ratings  |   |   |                     |                  |
|---|---|---|---------------------|------------------|
| Vibration (assembled to panel)                                | Tested at 10...2000 Hz, 1.52 mm displacement (peak-to-peak) max./10 G max. for 3 hr duration, no damage |   |                     |                  |
| Shock   | Tested at 1/2 cycle sine wave for 11 ms; no damage at 100 G   |   |                     |                  |
| Degree of protection  | IP66 (Type 3/3R/4/4X/12/13)   |   |                     |                  |
| Mechanical durability per EN 60947-5-1 (Annex C)              | 300 000 cycles  | Selector switch   |                     |                  |
|   | 2 000 000 cycles  | Push-pull/twist-to-release E-stop   |                     |                  |
| Operating forces  | Momentary push buttons<br>E-stop = 36 N   |   |                     |                  |
| Operating torque (typical application with one contact block) | Selector switch = 0.25 N•m  |   |                     |                  |
|   | N.O.  | Slow double make and break  |                     |                  |
| Contact operation   | N.C.  | Slow double make and break - positive opening                                       |                     |                  |
|   |   |  |                     |                  |
| Push button travel to change electrical state                 | N.O.  | 2.5 mm (0.1 in.)  |                     |                  |
|   | N.C.  | 1.5 mm (0.060 in.)  |                     |                  |
| Environmental   |   |   |                     |                  |
| Temperature range (operating)                                 | -25...+60 °C (-13...+140 °F)‡   |   |                     |                  |
| Temperature range (short term storage)                        | -40...+85 °C (-40...+185 °F)  |   |                     |                  |
| Humidity  | 50...95% RH from 25...60 °C (77...140 °F)   |   |                     |                  |
| Electrical Ratings  |   |   |                     |                  |
| Standard contact block ratings                                | B300, R300<br>AC 15, DC 13<br>300 VAC<br>EN/IEC 60947-5-1 and UL 508, 17V, 5 mA min.                    |   |                     |                  |
|   | <b>Nominal Voltage</b>  | <b>Range</b>  | <b>Current Draw</b> | <b>Frequency</b> |
| LED module ratings  | 24V AC  | 20...26V AC   | 32 mA               | 50/60 Hz         |
|   | 24V DC  | 18...30V DC   | 24 mA               | DC               |
|   | 120V AC   | 102...132V AC   | 22 mA               | 50/60 Hz         |
|   | 240V AC   | 204...264V AC   | 22 mA               | 50/60 Hz         |
| Thermal current   | 5 A max. enclosed (40 °C ambient) to UL 508, EN/IEC 60947-5-1   |   |                     |                  |
| Insulation voltage (U <sub>i</sub> )                          | 300V  |   |                     |                  |
| Wire capacity (screw terminal)                                | #18...14 AWG (0.75...2.5 mm <sup>2</sup> )<br>Max. (2) #14 AWG, uses same size wire only                |   |                     |                  |
| Recommendations for ring lug termination option§              | 6.35 mm (0.250 in.) Max. outer diameter with 3.8 mm (0.148 in.) hole diameter                           |   |                     |                  |
| Recommended tightening torque on screw terminals              | 0.7...0.9 N•m (6...8 lb•in)   |   |                     |                  |
| Dielectric strength (minimum)                                 | 2500V for one minute  |   |                     |                  |
| External short circuit protection                             | 5 A Type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class CC to UL 248-4)       |   |                     |                  |
| Electrical shock protection                                   | Finger-safe conforming to IP2X  |   |                     |                  |
| Illumination  |   |   |                     |                  |
| LED dominant wavelength                                       | Green   | 525 nm  |                     |                  |
|   | Red   | 629 nm  |                     |                  |
|   | Yellow  | 590 nm  |                     |                  |
|   | Blue  | 470 nm  |                     |                  |
|   | White   | —   |                     |                  |
| LED luminous intensity  | Green   | 780 mcd   |                     |                  |
|   | Red   | 780 mcd   |                     |                  |
|   | Yellow  | 600 mcd   |                     |                  |
|   | Blue  | 168 mcd   |                     |                  |
|   | White   | 360 mcd   |                     |                  |
| Incandescent maximum wattage                                  | 2.6 W   |   |                     |                  |

★ Performance Data — see note on page 3.

‡ Operating temperatures below 0 °C (32 °F) are based on the absence of freezing moisture and liquids.

§ 3M MV018-R/S (#22...18 AWG) or 3M MVU14-6R/S (#16...14 AWG)

Specifications, Continued

| Materials                |  |                        |                                 |
|--------------------------|--|------------------------|---------------------------------|
| Springs                  | Stainless steel and zinc coated music wire | Lens (pilot light)     | Acrylic                         |
| Electrical contacts      | Brass with silver-nickel contacts          | Bezel/bushing, housing | Glass-filled polyester          |
| Terminals                | Brass and phosphor bronze                  | Legend frames          | Glass-filled polyamide          |
| Panel gasket             | Nitrile and polyester-based TPE            | Mounting ring          | Glass-filled polyamide          |
| Seal                     | Nitrile                                    | Terminal screws        | Zinc-plated steel with chromate |
| Button cap/mushroom head | Polyester/polycarbonate blend              | Lamp socket            | Brass and Phosphor bronze       |

★ Performance Data — see note on page 3.

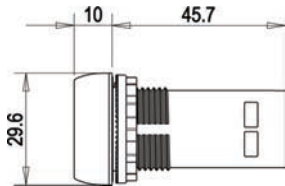
Standards Compliance and Certifications

|                                     |  |
|-------------------------------------|--|
| Certifications                      | UL, CSA, CCC, CE   |
| Conformity to standards — CE Marked | UL 508, EN/ISO 13850, EN 60947-1, EN 60947-5-1, EN 60947-5-2 |
| Terminal identification             | EN/IEC 60947-1   |

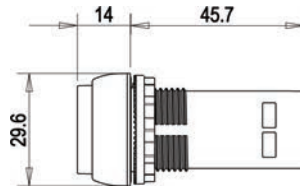
Approximate Dimensions

Dimensions in millimeters. Dimensions are not intended to be used for manufacturing purposes. Refer to RAISE software for additional dimensional information.

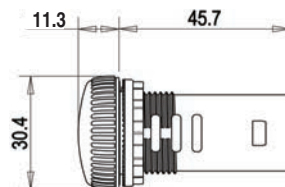
Momentary Push Button Operators — Flush



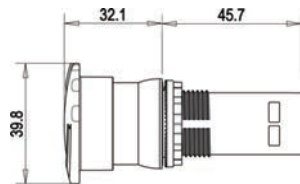
Momentary Push Button Operators — Extended



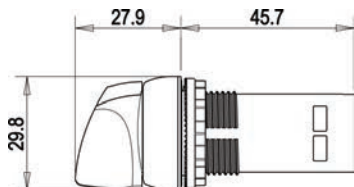
Pilot Light Devices



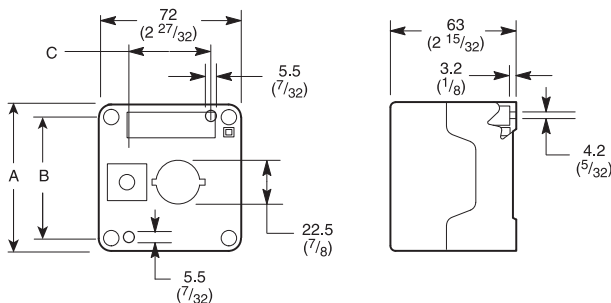
2-Position Push-Pull/Twist-to-Release Mushroom Operators



Selector Switch Operators



Plastic Enclosures



Instruction Sheet

OPTION WAHL OPZIONE OPÇÃO OPCION

|     |    |    |    |    |       |  |
|-----|----|----|----|----|-------|--|
| (A) |    |    |    |    |       |  |
| (A) |    |    |    |    |       |  |
| (B) |    |    |    |    |       |  |
|     |    |    |    |    |       |  |
|     | 30 | 40 | 50 | 40 | 50    |  |
|     | 30 |    | 40 |    | 60/90 |  |

PLASTIC PLASTIQUE PLASTIK PLASTICA PLÁSTICO  
1.7 Nm  
15 lb-in

Use the same size wire only  
Utiliser uniquement du fil de même dimension  
Nur Draht derselben Größe verwenden  
utilizzare solo cavi della stessa dimensione  
use somente fios do mesmo tamanho  
usar sólo el mismo tamaño de cable

0.75 - 1.5 mm<sup>2</sup> (#18 - #14 AWG)  
0.7 - 0.9 Nm 6 - 8 lb-in

or  
ou  
oder  
o

3.8 mm  
6.35 mm  
50 mm

"R" option for ring connectors  
option de "R" pour cosses à plage ronde  
"R" Wahl für Ringkabelschuhe  
opzione "R" per capicorda ad anello  
opção de "R" para conectores do anel  
opción de "R" para los conectores del anillo

Plastic Enclosures

| Cat. No.  | No. of Units (Holes) | A         | B        | C       | Weight   |
|-----------|----------------------|-----------|----------|---------|----------|
| 800FD-1P  | 1                    | 72        | 59       | 41      | 95 g     |
| 800FD-1PY | 1                    | (2-27/32) | (2-5/16) | (1-5/8) | (3.5 oz) |

Specifications

| Mechanical Ratings  |   |                           |
|---|---|---------------------------|
| Vibration (assembled to panel)                                | Tested at 10...2000 Hz, 1.52 mm displacement (peak-to-peak) max./10 G max. for 6 hr duration, no damage |                           |
| Shock   | Tested at 1/2 cycle sine wave for 11 ms; no damage at 100 G   |                           |
| Degree of protection‡   | IP66, Type 4/4X/13  |                           |
| Mechanical durability per EN 60947-5-1 (Annex C)              | 2 000 000 Cycles  | Push buttons – momentary  |
|   | 1 000 000 Cycles  | Push buttons – maintained |
|   | 250 000 Cycles  | Selector switch           |
|   | 200 000 Cycles  | Key selector switch       |
|   | 200 000 Cycles  | Twist-to-release E-stop   |
| Operating forces (typical with one contact block)             | Extended = 5...8 N<br>E-stop = 14...16 N  |                           |
| Operating torque (typical application with one contact block) | Selector switch = 0.06 N•m (0.5 lb•in)  |                           |
| Mounting torque   | 1.1 N•m (10 lb•in)  |                           |
| Environmental   |   |                           |
| Temperature range (operating)                                 | -25...+55 °C (-13...+131 °F)  |                           |
| Temperature range (short term storage)                        | -40...+70 °C (-40...+158 °F)  |                           |
| Humidity  | 50...95% RH from 25...60 °C (77...140 °F)   |                           |

‡ Keyed selector switches do not meet 4X rating.

| Mechanical Ratings — Contact Blocks           |   |                                       |
|---|---|---------------------------------------|
| Vibration (assembled to panel)                | Tested at 10...2000 Hz, 1.52 mm displacement (peak-to-peak) max./10 G max. 6 hr |                                       |
| Shock   | Tested at 1/2 cycle sine wave for 11 ms and no damage at 100 G max.             |                                       |
| Contact durability                            | 200 000 cycles (Cat. No. 800B-PS_)  |                                       |
| Contact operation                             | N.O. / N.C.   | Snap action                           |
|   | N.C.  | Slow make/break positive opening<br>↶ |
|   | N.O.  | Slow make/break                       |
| Push button travel to change electrical state | 1.4 mm (0.06 in.)   |                                       |
| Operating forces (typical)                    | 1 contact block = 3 N<br>2 contact blocks = 6 N                                 |                                       |

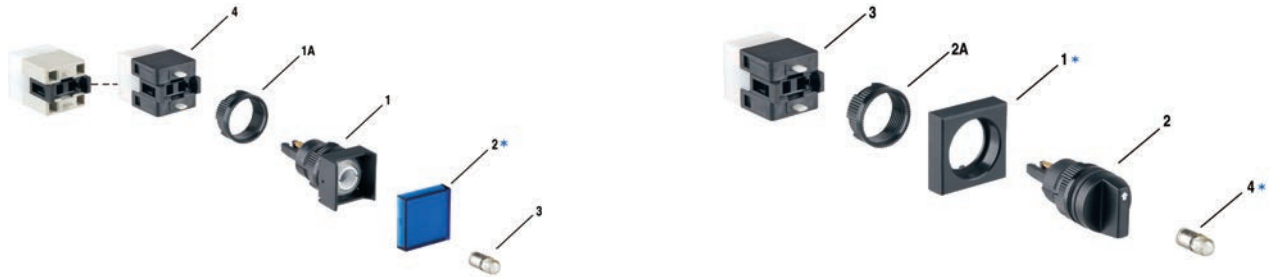
| Electrical Ratings                                  |  |                |                  |
|---|--|----------------|------------------|
| Standard contact block ratings                      | AC 15, B300, 1.5 A/240V AC, 3 A/120V AC<br>DC 13, R300, 0.1 A/250V DC, 0.22 A/125V DC            |                |                  |
| LED Module ratings                                  | <b>Nominal Voltage</b>   | <b>Current</b> | <b>Frequency</b> |
|   | 12...24V AC  | 12 mA          | 50/60 Hz         |
|   | 12...24V DC  | 12 mA          | DC               |
|   | 120V AC  | 9 mA           | 50/60 Hz         |
| Thermal current                                     | $I_{th} = 5 \text{ A (AC)}, I_{th} = 1 \text{ A (DC)}$   |                |                  |
| Insulation voltage (U <sub>i</sub> )                | 300V   |                |                  |
| Stab termination                                    | 2.8 X 0.5 mm   |                |                  |
| Dielectric strength (minimum)                       | 1500V 1 min.   |                |                  |
| External short circuit protection – standard blocks | 6 A type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class C to UL 248-4) |                |                  |
| Electrical shock protection                         | Finger-safe conforming to IP2X   |                |                  |

| Illumination                 |  |          |
|------------------------------|--|----------|
| LED Dominant wavelength      | Green  | 525 nm   |
|                              | Red  | 624 nm   |
|                              | White  | —        |
| LED Luminous intensity       | Green  | 500 mcd  |
|                              | Red  | 400 mcd  |
|                              | White  | 1000 mcd |
| Incandescent maximum wattage | 1.2 W  |          |
| Materials                    |  |          |
| Springs                      | Stainless steel and gold-plated, high-carbon steel |          |
| Electrical contacts          | Gold-plated silver                                 |          |
| Stab terminals               | Phosphor bronze with gold or nickel plating        |          |
| Lenses                       | Polycarbonate                                      |          |

Standards Compliance and Certifications

|                                |  |
|--------------------------------|--|
| <b>Certifications</b>          | UR, CSA, CCC, CE   |
| <b>Standards Compliance</b>    | UL 508, EN ISO 13850, EN 60947-1, EN 60947-5-1, EN 60947-5-5 |
| <b>Terminal Identification</b> | EN/IEC 60947-1   |
| <b>RoHS Compliant</b>          | ✓  |

Operator Assembly Sequence



★ Optional

Target Table and Operator Position

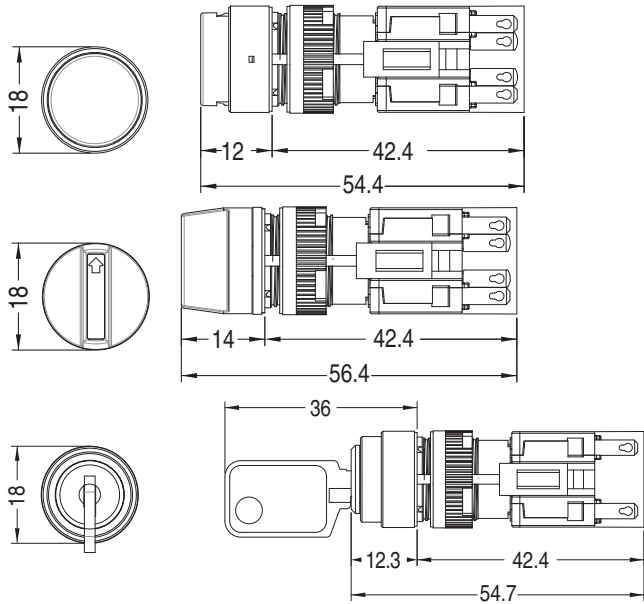
| Contact Block Cat. No. | Contact Block Location | Contact Type | 2-Position Target Table |   | 3-Position Target Table |   |   |
|------------------------|------------------------|--------------|-------------------------|---|-------------------------|---|---|
|                        |                        |              | ↙                       | ↘ | ↙                       | ↕ | ↘ |
| 800B-PS11              | Top                    | NA           | —                       | — | —                       | — | — |
|                        | Bottom                 | N.C.         | X                       | O | O                       | X | X |
|                        |                        | N.O.         | O                       | X | X                       | O | O |
| 800B-PS22              | Top                    | N.C.         | X                       | O | X                       | X | O |
|                        |                        | N.O.         | O                       | X | O                       | O | X |
|                        | Bottom                 | N.C.         | X                       | O | O                       | X | X |
|                        |                        | N.O.         | O                       | X | X                       | O | O |
| 800B-PT01              | Top                    | NA           | —                       | — | —                       | — | — |
|                        | Bottom                 | N.C.         | X                       | O | O                       | X | X |
| 800B-PT02              | Top                    | N.C.         | X                       | O | X                       | X | O |
|                        | Bottom                 |              | X                       | O | O                       | X | X |
| 800B-PT11              | Top                    | N.O.         | O                       | X | O                       | O | X |
|                        | Bottom                 | N.C.         | X                       | O | O                       | X | X |

Note: X = Closed/O = Open

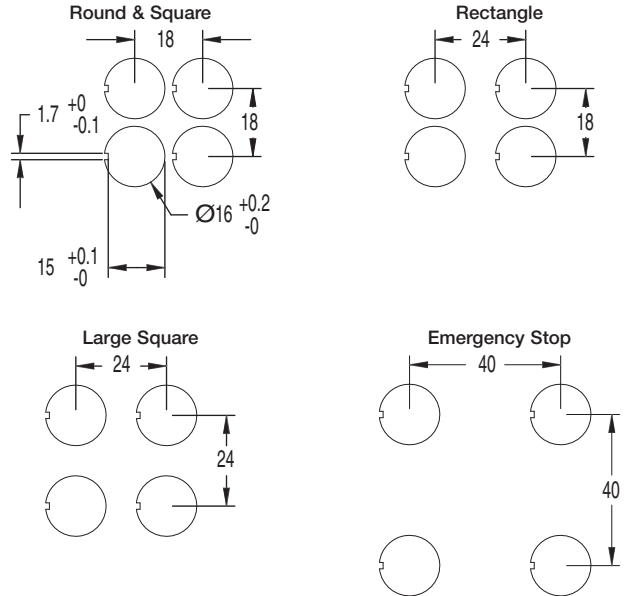
Note: To illuminate a selector switch, add either an LED or incandescent bulb. All selector switches have a clear lens. Green and red LED bulbs can be used to change the selector switch color.

Approximate Dimensions

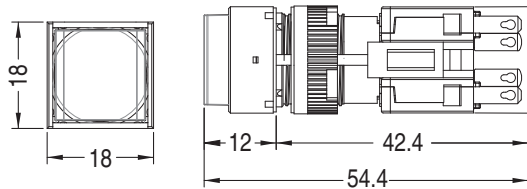
Round



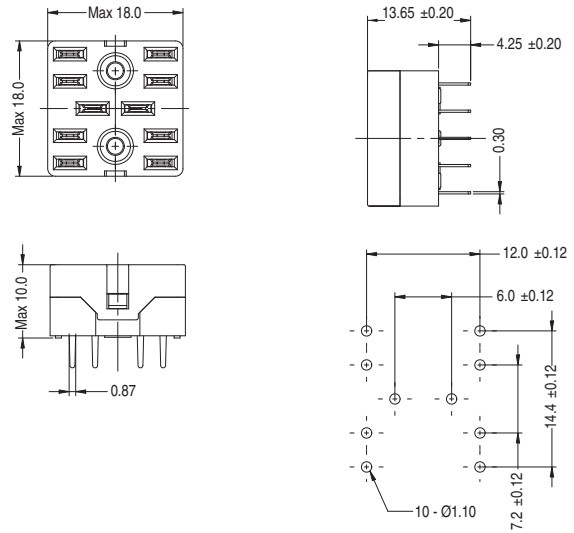
Hole Patterns



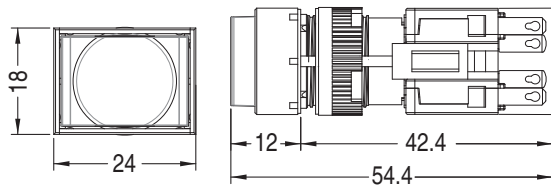
Square



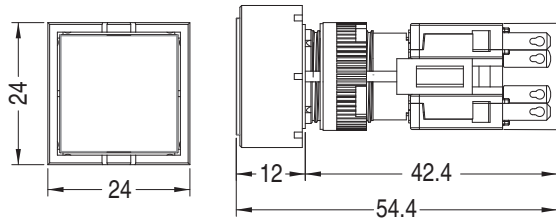
Printed Circuit Board Pin Socket



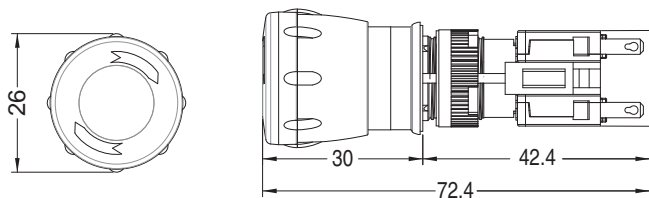
Rectangle



Large Square



Emergency Stop





**Bul. 800MR - Momentary Contact Push Buttons**

Momentary Contact Push Button Units, Non-Illuminated



Flush Head Unit  
Cat. No. 800MR-A1B



Extended Head Unit  
Cat. No. 800MR-B2A



Mushroom Head Unit  
Cat. No. 800MR-D2B

800MR –   A     1     A           
          a      b      c      d

a

| Operator Type★ |               |
|----------------|---------------|
| Code           | Description   |
| A              | Flush head    |
| B              | Extended head |
| D              | Mushroom head |

b

| Button Color |             |
|--------------|-------------|
| Code         | Description |
| 1            | Green       |
| 2            | Black       |
| 3            | Orange      |
| 4            | Grey        |
| 5            | White       |
| 6            | Red         |
| 7            | Blue        |
| 9            | Yellow      |

c

| Standard Contact Cartridges |                         |
|-----------------------------|-------------------------|
| Code                        | Description             |
| Blank                       | No contacts             |
| A                           | 1 N.O. - 1 N.C.         |
| A2                          | 2 N.O.                  |
| A3                          | 1 N.O.E.M. - 1 N.C.L.B. |
| A4                          | 2 N.C.                  |
| A7                          | 1 N.C.L.B. - 1 N.C.     |
| B                           | 2 N.O. - 2 N.C.         |
| D1                          | 1 N.O.                  |
| D2                          | 1 N.C.                  |

d

| Contact Block Termination Type‡ |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

★ Guards must be ordered separately.  
‡ Logic Reed and small screw blocks can be ordered separately.

Momentary Contact Push Button Units, Illuminated



Flush Head Unit  
Cat. No. 800MR-QA24GA



Extended Head Unit  
Cat. No. 800MR-PB16RA



Mushroom Head Unit  
Cat. No. 800MR-QMB24RA

800MR – PA L 24 R  
a b c d e f

a

| Operator     |             |
|--------------|-------------|
| Transformer  |             |
| Code         | Description |
| PA           | Flush ♦     |
| PB           | Extended    |
| PMB          | Mushroom    |
| Full Voltage |             |
| Code         | Description |
| QA           | Flush ♦     |
| QB           | Extended    |
| QMB          | Mushroom    |

b

| Illumination Options |  |
|----------------------|--|
| Code                 | Description  |
| Blank                | Standard illumination as determined by power module type |
| L                    | LED§   |

c

| Input Voltage |                  |
|---------------|------------------|
| Full Voltage  |                  |
| Code          | Description      |
| 12            | 12V AC/DC        |
| 24            | 24V AC/DC        |
| 10            | 120V AC♣         |
| Transformer   |                  |
| Code          | Description      |
| 16            | 120V AC 50/60 Hz |
| 26            | 240V AC 50/60 Hz |

d

| Lens Color |                                |
|------------|--------------------------------|
| Code       | Color                          |
| A          | Amber                          |
| B          | Blue                           |
| C          | Clear                          |
| G          | Green                          |
| R          | Red                            |
| W          | White                          |
| X          | No lens with contact blocks    |
| Blank      | No lens without contact blocks |

e

| Standard Contact Cartridges |                         |
|-----------------------------|-------------------------|
| Code                        | Description             |
| Blank                       | No contacts             |
| A                           | 1 N.O. - 1 N.C.         |
| A2                          | 2 N.O.                  |
| A3                          | 1 N.O.E.M. - 1 N.C.L.B. |
| A4                          | 2 N.C.                  |
| A7                          | 1 N.C.L.B. - 1 N.C.     |
| B                           | 2 N.O. - 2 N.C.△        |
| D1                          | 1 N.O.                  |
| D2                          | 1 N.C.                  |

f

| Contact Block Termination Type♣ |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

§ LEDs available in red, green, amber, blue, and white. LED color must match lens color, except clear lens supplied with white LED and white lens supplied with amber LED.

♣ Only available with LED Illumination option.

△ Only available with full voltage power module option and standard stab terminations.

♦ Guards must be ordered separately.

♣ Logic Reed and small screw blocks must be ordered separately.

Bul. 800MR - Push-Pull

2-Position Push-Pull and Push-Pull/Twist Release and 3-Position Push-Pull Units, Non-Illuminated



2-Position Push-Pull  
Cat. No. 800MR-FX6A



2-Position Push-Pull/Twist  
Cat. No. 800MR-FXT6A4

800MR – FX T 6 A (2-Position)  
                  a      b      c      d      e      f

800MR – FX N 6 A (3-Position)  
                  a      b<sub>1</sub>      c      d      e      f

a

| Operator Type |                |
|---------------|----------------|
| Code          | Description    |
| FX            | Push-pull unit |

c

| Operator |                 |
|----------|-----------------|
| Code     | Color           |
| Blank    | Non-illuminated |

e

| Contact Cartridges |                     |
|--------------------|---------------------|
| Code               | Description         |
| Blank              | No contacts         |
| A                  | 1 N.O. - 1 N.C.     |
| A2                 | 2 N.O.              |
| A4                 | 2 N.C.              |
| A7                 | 1 N.C.L.B. - 1 N.C. |
| B                  | 2 N.O. - 2 N.C.     |
| D1                 | 1 N.O.              |
| D2                 | 1 N.C.              |

**Note:** See Table 1 for Target description.




b

| Operator Function |                        |
|-------------------|------------------------|
| 2-Position        |                        |
| Code              | Description            |
| Blank             | Maintained — push-pull |
| T                 | Twist-release          |

d

| Button Color |        |
|--------------|--------|
| Code         | Color  |
| 1            | Green  |
| 2            | Black  |
| 3            | Orange |
| 4            | Grey   |
| 5            | White  |
| 6            | Red    |
| 7            | Blue   |
| 9            | Yellow |
| Blank        | No cap |






b<sub>1</sub>

| Operator Function |   |   |   |
|-------------------|---|---|---|
| 3-Position*       |   |   |   |
| Code              | Operator Position   |   |   |
|                   |  |  |  |
|                   | Out   | Center  | In  |
| N                 | Momentary   | Maintained  | Momentary   |

f

| Contact Block Termination Type† |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

Table 1. Target Selection

| Code  | 2-Position  |   | Contact Description              | 3-Position  |   |   | Code  |
|-------|---|---|----------------------------------|---|---|---|-------|
|       |  |  |                                  |  |  |  |       |
|       | Out   | In  |                                  | Out   | Center  | In  |       |
| Blank | —   | —   | No contacts                      | —   | —   | —   | Blank |
| D1    | O   | X   | N.O.                             | —   | —   | —   | —     |
| D2    | X   | O   | N.C.                             | —   | —   | —   | —     |
| A     | O<br>X  | X<br>O  | N.O. -<br>N.C.                   | O<br>X  | O<br>O  | X<br>O  | A     |
| A2    | O<br>O  | X<br>X  | N.O. -<br>N.O.                   | O<br>O  | O<br>O  | X<br>X  | A2    |
| A4    | X<br>X  | O<br>O  | N.C. -<br>N.C.                   | X<br>X  | O<br>O  | O<br>O  | A4    |
| —     | —   | —   | N.C. -<br>N.C.L.B.               | X<br>X  | O<br>X  | O<br>O  | A7    |
| B     | O<br>X<br>O<br>X  | X<br>O<br>X<br>O  | N.O. -<br>N.C.<br>N.O. -<br>N.C. | O<br>X<br>O<br>X  | O<br>O<br>O<br>O  | X<br>O<br>X<br>O  | B     |

Note: X = Closed/O = Open  
 \* Not available in twist release.  
 † Logic Reed and small screw blocks must be ordered separately.

2-Position Push-Pull and Push-Pull/Twist Release and 3-Position Push-Pull Units, Illuminated



Illuminated 2-Position Push-Pull  
Cat. No. 800MR-FXQ24RA



Illuminated 2-Position Push-Pull/Twist  
Cat. No. 800MR-FXTP16RA

800MR – FX    T    P    16    R    A    (2-Position)

*a*    *b*    *c*    *d*    *e*    *f*    *g*    *h*

800MR – FX    N    P    16    R    A    (3-Position)

*a*    *b*<sub>1</sub>    *c*    *d*    *e*    *f*    *g*    *h*

*a*

| Operator Type |                |
|---------------|----------------|
| Code          | Description    |
| FX            | Push-pull unit |

*b*

| Operator Function |               |
|-------------------|---------------|
| 2-Position        |               |
| Code              | Description   |
| Blank             | Maintained    |
| T                 | Twist-release |

*b*<sub>1</sub>

| Operator Function |                   |            |           |
|-------------------|-------------------|------------|-----------|
| 3-Position        |                   |            |           |
| Code              | Operator Position |            |           |
|                   |                   |            |           |
|                   | Out               | Center     | In        |
| N                 | Momentary         | Maintained | Momentary |

*c*

| Operator Type |              |
|---------------|--------------|
| Code          | Description  |
| P             | Transformer  |
| Q             | Full voltage |

*d*

| Illumination Options |                   |
|----------------------|-------------------|
| Code                 | Description       |
| Blank                | Incandescent lamp |
| L                    | LED†              |

*e*

| Voltage      |                  |
|--------------|------------------|
| Full Voltage |                  |
| Code         | Description      |
| 12           | 12V AC/DC        |
| 24           | 24V AC/DC        |
| 10           | 120V AC§         |
| Transformer  |                  |
| Code         | Description      |
| 16           | 120V AC 50/60 Hz |
| 26           | 240V AC 50/60 Hz |

*f*

| Button Color |        |
|--------------|--------|
| Code         | Color  |
| A            | Amber  |
| B            | Blue   |
| C            | Clear  |
| G            | Green  |
| R            | Red    |
| W            | White★ |
| X            | No cap |

*g*

| Contact Cartridges |                     |
|--------------------|---------------------|
| Code               | Description         |
| Blank              | No contacts         |
| A                  | 1 N.O. - 1 N.C.     |
| A2                 | 2 N.O.              |
| A4                 | 2 N.C.              |
| A7                 | 1.N.C.L.B. - 1 N.C. |
| B                  | 2 N.O. - 2 N.C.‡    |
| D1                 | 1 N.O.              |
| D2                 | 1 N.C.              |

Note: See Table 1 for Target description.

*h*

| Contact Block Termination Type△ |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

Table 2. Target Selection

| Code  | 2-Position       |                  | Contact Description              | 3-Position       |                  |                  | Code  |
|-------|------------------|------------------|----------------------------------|------------------|------------------|------------------|-------|
|       |                  |                  |                                  |                  |                  |                  |       |
|       | Out              | In               |                                  | Out              | Center           | In               |       |
| Blank | —                | —                | No contacts                      | —                | —                | —                | Blank |
| D1    | O                | X                | N.O.                             | —                | —                | —                | —     |
| D2    | X                | O                | N.C.                             | —                | —                | —                | —     |
| A     | O<br>X           | X<br>O           | N.O. -<br>N.C.                   | O<br>X           | O<br>O           | X<br>O           | A     |
| A2    | O<br>O           | X<br>X           | N.O. -<br>N.O.                   | O<br>O           | O<br>O           | X<br>X           | A2    |
| A4    | X<br>X           | O<br>O           | N.C. -<br>N.C.                   | X<br>X           | O<br>O           | O<br>O           | A4    |
| —     | —                | —                | N.C. -<br>N.C.L.B.               | X<br>X           | O<br>X           | O<br>O           | A7    |
| B     | O<br>X<br>O<br>X | X<br>O<br>X<br>O | N.O. -<br>N.C.<br>N.O. -<br>N.C. | O<br>X<br>O<br>X | O<br>O<br>O<br>O | X<br>O<br>X<br>O | B     |

Note: X = Closed/O = Open

★ Not available in twist release.

‡ LEDs available in red, green, amber, blue, and white. LED color must match lens color, except clear lens supplied with white LED and white lens supplied with amber LED.

§ Only available with LED Illumination option.

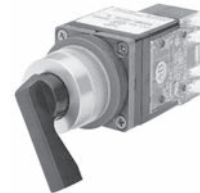
‡ Only available with full voltage power module option and standard stab terminations.

△ Logic Reed and small screw blocks must be ordered separately.

Bul. 800MR - Selector Switches  
2-Position Selector Switch Units, Non-Illuminated



Standard Knob Operator  
Cat. No. 800MR-HH2BLA



Knob Lever Operator  
Cat. No. 800MR-HK2BLA

800MR – H H 2 B L A         
*a* *b* *c* *d* *e* *e<sub>1</sub>* *f*

(Selector Switch)

800MR – H        31        B L A         
*a* *b* *c<sub>1</sub>* *c<sub>2</sub>* *d* *e* *e<sub>1</sub>* *f*

(Cylinder Lock)

*a*

| Operator Positions |                            |
|--------------------|----------------------------|
| Code               | Description                |
| H                  | 2-position selector switch |
| H                  | 2-position cylinder lock   |

*b*

| Operator Color and Type§ |               |
|--------------------------|---------------|
| Standard Knob            |               |
| Code                     | Description   |
| X                        | No knob       |
| H                        | Black         |
| Knob Lever               |               |
| Code                     | Description   |
| X                        | No knob lever |
| K                        | Black         |
| Cylinder Lock            |               |
| Code                     | Description   |
| Blank                    | Key           |

*c*

| Operator Function |                          |
|-------------------|--------------------------|
| Standard Knob     |                          |
| Code              | Description              |
| 2                 | Maintained               |
| 4                 | Spring return from left  |
| 5                 | Spring return from right |

*c<sub>1</sub>*

| Operator Function/Locking Position★ |               |
|-------------------------------------|---------------|
| Maintained                          |               |
| Code                                | Description   |
| 31                                  | Lock in left  |
| 32                                  | Lock in right |
| 33                                  | Lock in both  |
| Spring Return From Left             |               |
| Code                                | Description   |
| 42                                  | Lock in right |
| Spring Return From Right            |               |
| Code                                | Description   |
| 48                                  | Lock in left  |

*c<sub>2</sub>*

| Key Codes‡ |                 |            |
|------------|-----------------|------------|
| Code       | Key No.         | Master Key |
| Blank      | T100 (standard) | 1T         |
| 02         | T101            | 1T         |
| 03         | T102            | 1T         |
| 04         | T106            | 1T         |
| 05         | T107            | 1T         |
| 07         | T109            | 2T         |
| 08         | T134            | 2T         |
| 09         | T135            | 2T         |
| 10         | T136            | 2T         |
| 14         | T147            | 2T         |

*d*

| Cam Type |             |
|----------|-------------|
| Code     | Description |
| B        | B cam       |

*e*

| Contact Cartridge Position |                     |
|----------------------------|---------------------|
| Code                       | Description         |
| Blank                      | Both left and right |
| L                          | Left                |

*e<sub>1</sub>*

| Contact Cartridges |                 |
|--------------------|-----------------|
| Code               | Description     |
| Blank              | No contacts     |
| Δ A                | 1 N.O. - 1 N.C. |
| Δ A2               | 2 N.O.          |
| Δ A4               | 2 N.C.          |
| ♦ B                | 2 N.O. - 2 N.C. |
| Δ D1               | 1 N.O.          |
| Δ D2               | 1 N.C.          |
| ♦ P1               | 3 N.O.          |
| ♦ P2               | 3 N.C.          |
| ♦ P3               | 2 N.O. - 1 N.C. |
| ♦ P4               | 2 N.C. - 1 N.O. |
| ♦ P5               | 4 N.O.          |
| ♦ P6               | 4 N.C.          |
| ♦ P7               | 3 N.O. - 1 N.C. |
| ♦ P8               | 1 N.O. - 3 N.C. |

**Note:** See Table 1 for Target arrangements

*f*

| Contact Block Termination Type* |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

Table 1. Selector Switch Cam Targets

| Cam Description (2-Position) |   |   |                           |
|------------------------------|---|---|---------------------------|
| Target                       |   | Operator Function                         |                           |
|                              |   | Maintained and Spring Returned From Right | Spring Returned From Left |
| X                            | O | N.C.                                      | N.O.                      |
| O                            | X | N.O.                                      | N.C.                      |

Note: X = Closed/O = Open

★ Key removable in locked position only.

‡ If no optional key code is specified, the standard key (T100) will be supplied.

§ Red, green, blue, yellow, orange, grey, and white non-illuminated selector switch knobs and lever knobs must be ordered separately.

♣ Logic Reed and small screw contact blocks must be ordered separately.

Δ Contact cartridge position code (Table e) must be L.

♦ Contact cartridge position code (Table e) must be --.

en-Bradley 800FP-LFA5PN3WX2

3-Position Selector Switch Units, Non-Illuminated



Standard Knob Operator  
Cat. No. 800MR-JH2BB



Knob Lever Operator  
Cat. No. 800MR-JK2BB

800MR – J H 2 B L A  
a b c d e e<sub>1</sub> f

(Selector Switch)

800MR – J 41 B L A  
a b c<sub>1</sub> c<sub>2</sub> d e e<sub>1</sub> f  
a C<sub>2</sub> e<sub>1</sub>

(Cylinder Lock)

| Operator Positions |                            |
|--------------------|----------------------------|
| Code               | Description                |
| J                  | 3-position selector switch |
| J                  | 3-position cylinder lock   |

b

| Operator Color and Type§ |             |            |
|--------------------------|-------------|------------|
| Standard Knob            | Description | Knob Lever |
| Code                     |             | Code       |
| X                        | No knob     | X          |
| H                        | Black       | K          |
| Blank                    | Key         | Blank      |

c

| Operator Function |                          |
|-------------------|--------------------------|
| Code              | Description              |
| 2                 | Maintained               |
| 4                 | Spring return from left  |
| 5                 | Spring return from right |
| 9                 | Spring return from both  |

c<sub>1</sub>

| Operator Function/Locking Position★ |                          |
|-------------------------------------|--------------------------|
| Maintained                          |                          |
| Code                                | Description              |
| 41                                  | Lock in left             |
| 42                                  | Lock in center           |
| 43                                  | Lock in right            |
| 44                                  | Lock in all positions    |
| 45                                  | Lock in left and center  |
| 46                                  | Lock in right and left   |
| 47                                  | Lock in right and center |
| Spring Return From Left             |                          |
| Code                                | Description              |
| 50                                  | Lock in center           |
| 52                                  | Lock in right            |
| 51                                  | Lock in right and center |
| Spring Return From Right            |                          |
| Code                                | Description              |
| 69                                  | Lock in left             |
| 38                                  | Lock in center           |
| 73                                  | Lock in left and center  |
| Spring Return From Left and Right   |                          |
| Code                                | Description              |
| 631                                 | Lock in center★          |

| Key Codes‡       |                 |
|------------------|-----------------|
| 1T Master Series |                 |
| Code             | Key No.         |
| Blank            | T100 (standard) |
| 02               | T101            |
| 03               | T102            |
| 04               | T106            |
| 05               | T107            |
| 2T Master Series |                 |
| Code             | Key No.         |
| 07               | T109            |
| 08               | T134            |
| 09               | T135            |
| 10               | T136            |
| 14               | T147            |

d

| Cam Type |             |
|----------|-------------|
| Code     | Description |
| B        | B cam       |
| K        | K cam       |
| P        | P cam       |
| U        | U cam       |

e

| Contact Cartridge Position |                     |
|----------------------------|---------------------|
| Code                       | Description         |
| Blank                      | Both left and right |
| L                          | Left                |
| R                          | Right               |

| Contact Cartridges |                       |                 |
|--------------------|-----------------------|-----------------|
| Standard           | Description           |                 |
| Code               | Left side             | Right side      |
| Blank              | No contacts           |                 |
| Δ A                | 1 N.O.-1 N.C.         |                 |
| Δ A3               | 1 N.O.E.M.-1 N.C.L.B. |                 |
| ◆ B                | 1 N.O.-1 N.C.         |                 |
| ◆ P1               | 2 N.O.                | 1 N.O.          |
| ◆ P2               | 2 N.C.                | 1 N.C.          |
| ◆ P3               | 2 N.O.                | 1 N.C.          |
| ◆ P4               | 2 N.C.                | 1 N.O.          |
| ◆ P5               | 2 N.O.                | 2 N.O.          |
| ◆ P6               | 2 N.C.                | 2 N.C.          |
| ◆ P7               | 2 N.O.                | 1 N.O. - 1 N.C. |
| ◆ P8               | 2 N.C.                | 1 N.O. - 1 N.C. |
| ◆ P9               | 1 N.O.                | 1 N.C.          |
| ◆ T1               | 1 N.O. - 1 N.C.       | 1 N.C.          |

f

| Contact Block Termination Type♣ |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

Note: See Table 1 for cam and contact block selection.

★ Key removable in locked position only.

‡ If no optional key code is specified, the standard key (T100) will be supplied.

§ Red, green, blue, yellow, orange, grey, and white non-illuminated selector switch knobs and lever knobs must be ordered separately.

♣ Logic Reed and small screw contact blocks must be ordered separately.

Δ Contact cartridge position code (Table e) must be L or R.

◆ Contact cartridge position code (Table e) must be --.

Table 1. Selector Switch Cam Targets

| Note: X = Closed/O = Open |   |           |            |           |            | Cam Description |            |           |            |      |
|---------------------------|---|-----------|------------|-----------|------------|-----------------|------------|-----------|------------|------|
| Target                    |   | B         |            | K         |            | P               |            | U         |            |      |
| ↙                         | ↕ | Left Side | Right Side | Left Side | Right Side | Left Side       | Right Side | Left Side | Right Side |      |
| O                         | O | X         | N.O.       | N.O.      | N.O.       | —               | N.O.       | —         | —          | N.O. |
| X                         | O | O         | N.C.       | N.C.      | —          | N.O.            | N.C.       | N.O.      | N.O.       | —    |
| O                         | X | X         | N.O.E.M.   | N.O.E.M.  | —          | N.C.L.B.        | N.O.E.M.   | N.C.L.B.  | N.C.       | —    |
| X                         | X | O         | N.C.L.B.   | N.C.L.B.  | N.C.L.B.   | —               | N.C.L.B.   | —         | —          | N.C. |
| O                         | X | O         | —          | —         | N.C.       | N.C.            | —          | N.C.      | —          | —    |

4-Position Selector Switch Units, Non-Illuminated



Standard Knob Operator  
Cat. No. 800MR-NH2QB



Knob Lever Operator  
Cat. No. 800MR-NK2QB

800MR – N H 2 Q B \_\_\_\_\_ (Selector Switch)  
                  a b c d e f

800MR N \_\_\_\_\_ 31 \_\_\_\_\_ Q B \_\_\_\_\_ (Cylinder Lock)  
                  a b c<sub>1</sub> c<sub>2</sub> d e f

**a**

| Operator Positions |                          |
|--------------------|--------------------------|
| Code               | Description              |
| N                  | 4-position selector      |
| N                  | 4-position cylinder lock |

**b**

| Operator Color and Type* |             |            |
|--------------------------|-------------|------------|
| Standard Knob            | Description | Knob Lever |
| Code                     |             | Code       |
| X                        | No knob     | X          |
| H                        | Black       | K          |
| Blank                    | Key         | Blank      |

**c**

| Operator Function† |             |
|--------------------|-------------|
| Code               | Description |
| 2                  | Maintained  |

**c<sub>1</sub>**

| Operator Function/Locking Position* |                        |
|-------------------------------------|------------------------|
| Standard Key                        |                        |
| Code                                | Description            |
| 31                                  | Lock in position 1     |
| 32                                  | Lock in position 2     |
| 33                                  | Lock in position 3     |
| 34                                  | Lock in position 4     |
| 41                                  | Lock in position 1-2   |
| 42                                  | Lock in position 1-3   |
| 43                                  | Lock in position 1-4   |
| 44                                  | Lock in position 2-3   |
| 45                                  | Lock in position 2-4   |
| 46                                  | Lock in position 3-4   |
| 51                                  | Lock in position 1-2-3 |
| 52                                  | Lock in position 1-2-4 |
| 53                                  | Lock in position 1-3-4 |
| 54                                  | Lock in position 2-3-4 |
| 61                                  | Lock in all positions  |

**c<sub>2</sub>**

| Key Codes§ |                 |            |
|------------|-----------------|------------|
| Code       | Key No.         | Master Key |
| Blank      | T100 (standard) | 1T         |
| 02         | T101            | 1T         |
| 03         | T102            | 1T         |
| 04         | T106            | 1T         |
| 05         | T107            | 1T         |
| 07         | T109            | 2T         |
| 08         | T134            | 2T         |
| 09         | T135            | 2T         |
| 10         | T136            | 2T         |
| 14         | T147            | 2T         |

**d**

| Cam Type and Target Table |   |   |   |                          |        |
|---------------------------|---|---|---|--------------------------|--------|
| Q                         |   |   |   | Contact Type (Rear View) |        |
| Target                    |   |   |   | Left                     | Right  |
|                           |   |   |   | 1 N.O.                   | —      |
| O                         | O | O | X | 1 N.C.                   | —      |
| O                         | O | X | O | —                        | 1 N.O. |
| O                         | X | O | O | —                        | 1 N.C. |
| X                         | O | O | O | —                        | 1 N.C. |

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

**e**

| Contact Cartridges               |                 |
|----------------------------------|-----------------|
| Standard Block/Stab Terminations |                 |
| Code                             | Description     |
| Blank                            | No contacts     |
| B                                | 2 N.O. - 2 N.C. |

**f**

| Contact Block Termination TypeΔ |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

- \* Red, green, blue, yellow, orange, grey, and white non-illuminated selector switch knobs and knob levers must be ordered separately.
- \* Key removable in locked position only.
- † Operators are maintained in all positions.
- § If no optional key code is specified, the standard key (**T100**) will be supplied.
- Δ Logic Reed and small screw contact blocks must be ordered separately.

2-Position and 3-Position Knob/Lever Type Selector Switch Units, Illuminated



800MR – 24 a b c d e f g<sub>1</sub> g<sub>2</sub> h

| Input Voltage |                  |
|---------------|------------------|
| Full Voltage  |                  |
| Code          | Description      |
| 12            | 12V AC/DC        |
| 24            | 24V AC/DC        |
| 10            | 120V AC★         |
| Transformer   |                  |
| Code          | Description      |
| 16            | 120V AC 50/60 Hz |
| 26            | 240V AC 50/60 Hz |

| Operator Positions |             |
|--------------------|-------------|
| Code               | Description |
| H                  | 2-position  |
| J                  | 3-position  |

| Operator Color and Type |             |            |
|-------------------------|-------------|------------|
| Standard Knob           | Description | Knob Lever |
| Code                    |             | Code       |
| X                       | No knob     | X          |
| A                       | Red         | L          |
| B                       | Green       | M          |
| D                       | Amber       | P          |
| Y                       | Clear       | Z          |

| Illumination Options |              |
|----------------------|--------------|
| Code                 | Description  |
| Blank                | Incandescent |
| L                    | LED‡         |

| Operator Function |                          |
|-------------------|--------------------------|
| Code              | Description              |
| 2                 | Maintained               |
| 4                 | Spring return from left  |
| 5                 | Spring return from right |
| 9                 | Spring return from both  |

| Cam Type (2-Position)                             |             |
|---|-------------|
| Code  | Description |
| B   | B cam       |
| <b>Note:</b> For Target arrangements see Table 1. |             |

| Cam Type (3-Position)                             |             |
|---|-------------|
| Code  | Description |
| B   | B cam       |
| K   | K cam       |
| P   | P cam       |
| U   | U cam       |
| <b>Note:</b> For Target arrangements see Table 2. |             |

| Contact Cartridges   |             |               |                       |
|--|-------------|---------------|-----------------------|
|  |             | Description   |                       |
| Code   | Left side   | Right side    |                       |
| Blank  | No contacts |               |                       |
| Δ  | A           | —             | 1 N.O.-1 N.C.         |
| Δ▲   | A2          | —             | 2 N.O.                |
| Δ  | A3          | —             | 1 N.O.E.M.-1 N.C.L.B. |
| Δ▲   | A4          | —             | 2 N.C.                |
| §♦   | B           | 1 N.O.-1 N.C. | 1 N.O.-1 N.C.         |
| Δ▲   | D1          | —             | 1 N.O.                |
| Δ▲   | D2          | —             | 1 N.C.                |
| §♦   | P1          | 2 N.O.        | 1 N.O.                |
| §♦   | P2          | 2 N.C.        | 1 N.C.                |
| §♦   | P3          | 2 N.O.        | 1 N.C.                |
| §♦   | P4          | 2 N.C.        | 1 N.O.                |
| §♦   | P5          | 2 N.O.        | 2 N.O.                |
| §♦   | P6          | 2 N.C.        | 2 N.C.                |
| §♦   | P7          | 2 N.O.        | 1 N.O.-1 N.C.         |
| §♦   | P8          | 2 N.C.        | 1 N.O.-1 N.C.         |
| §♦   | P9          | 1 N.O.        | 1 N.C.                |
| §♦   | T1          | 1 N.O.-1 N.C. | 1 N.C.                |
| <b>Note:</b> See Table 1 for 2-position contact block selection. See Table 2 for 3-position contact block selection. |             |               |                       |

| Contact Block Termination Type* |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

Table 1. Selector Switch Cam Targets

| Cam Description (2-Position) |                   |   |                         |
|------------------------------|-------------------|---|-------------------------|
| B                            |                   |   |                         |
| Target                       | Operator Function |   |                         |
|                              |                   | Maintained and Spring Return From Right | Spring Return From Left |
| X                            | O                 | N.C.                                    | N.O.                    |
| O                            | X                 | N.O.                                    | N.C.                    |

Note: X = Closed/O = Open

Table 2. Selector Switch Cam Targets

| Cam Description (3-Position) |   |   |           |            |           |            |           |            |           |            |
|------------------------------|---|---|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| Target                       |   |   | B         |            | K         |            | P         |            | U         |            |
|                              |   |   | Left Side | Right Side | Left Side | Right Side | Left Side | Right Side | Left Side | Right Side |
| O                            | O | X | N.O.      | N.O.       | N.O.      | —          | N.O.      | —          | —         | N.O.       |
| X                            | O | O | N.C.      | N.C.       | —         | N.O.       | N.C.      | N.O.       | N.O.      | —          |
| O                            | X | X | N.O.E.M.  | N.O.E.M.   | —         | N.C.L.B.   | N.O.E.M.  | N.C.L.B.   | N.C.      | —          |
| X                            | X | O | N.C.L.B.  | N.C.L.B.   | N.C.L.B.  | —          | N.C.L.B.  | —          | —         | N.C.       |
| O                            | X | O | —         | —          | N.C.      | N.C.       | —         | N.C.       | —         | —          |

Note: X = Closed/O = Open

- ★ Only available with LED Illumination option.
- ‡ LEDs only available in red, green, amber and white. Knob color must match LED color, except clear knob supplied with white LED.
- § Only available with full voltage power module and standard stab terminations.
- ▲ Logic Reed and small screw contact blocks must be ordered separately.
- Δ Contact cartridge position code (Table g<sub>1</sub>) must be R.
- ♦ Contact cartridge position code (Table g<sub>1</sub>) must be --.
- ▲ Only available for 2-position selector switches.



4-Position Knob/Lever Type Selector Switch Units, Illuminated



Standard Knob Operator  
Cat. No. 800MR-24NA2QB



Knob Lever Operator  
Cat. No. 800MR-24NL2QB

800MR - 24 N A L 2 Q B     
*a* *b* *c* *d* *e* *f* *g* *h*

*a*

| Input Voltage |             |
|---------------|-------------|
| Full Voltage  |             |
| Code          | Description |
| 12            | 12V AC/DC   |
| 24            | 24V AC/DC   |
| 10            | 120V AC★    |

*b*

| Operator Positions |             |
|--------------------|-------------|
| Code               | Description |
| N                  | 4-position‡ |

*c*

| Operator Color and Type |             |            |
|-------------------------|-------------|------------|
| Standard Knob           | Description | Knob Lever |
| Code                    |             | Code       |
| X                       | No knob     | X          |
| A                       | Red         | L          |
| B                       | Green       | M          |
| D                       | Amber       | P          |
| Y                       | Clear       | Z          |

*d*

| Illumination Options |              |
|----------------------|--------------|
| Code                 | Description  |
| Blank                | Incandescent |
| L                    | LED§         |

*e*

| Operator Function |                        |
|-------------------|------------------------|
| Code              | Standard knob function |
| 2                 | Maintained             |

*f*

| Cam Type and Target Table |   |   |   |                          |        |
|---------------------------|---|---|---|--------------------------|--------|
| Q                         |   |   |   |                          |        |
| Target                    |   |   |   | Contact Type (Rear View) |        |
|                           |   |   |   | Left                     | Right  |
| O                         | O | O | X | 1 N.O.                   | —      |
| O                         | O | X | O | 1 N.C.                   | —      |
| O                         | X | O | O | —                        | 1 N.O. |
| X                         | O | O | O | —                        | 1 N.C. |

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

*g*

| Contact Cartridges |                 |
|--------------------|-----------------|
| Standard Block     |                 |
| Code               | Description     |
| B                  | 2 N.O. - 2 N.C. |

*h*

| Contact Block Termination Type* |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |

Note: X = Closed/ O = Open

- ★ Only available with LED Illumination option.
- ‡ Operator is maintained in all positions.
- § LEDs only available in red, green, amber and white. Knob color must match LED color, except clear knob supplied with white LED.
- ♣ Logic Reed contact blocks must be ordered separately.

Pilot Light Units



Pilot Light  
Cat. No. 800MR-Q24R



Push-to-Test Pilot Light  
Cat. No. 800MR-QT24R

800MR –  P   L   24   R     
                   a          b          c          d          e

a

| Operator Transformer |                                      |
|----------------------|--------------------------------------|
| Code                 | Description                          |
| P                    | Pilot light                          |
| PDT                  | Pilot light — dual input transformer |
| PT                   | Pilot light — push-to-test           |
| Full Voltage         |                                      |
| Code                 | Description                          |
| Q                    | Pilot light                          |
| QT                   | Pilot light — push-to-test           |

c

| Input Voltage |                  |
|---------------|------------------|
| Full Voltage  |                  |
| Code          | Description      |
| 12            | 12V AC/DC        |
| 24            | 24V AC/DC        |
| 10            | 120V AC§         |
| Transformer   |                  |
| Code          | Description      |
| 16            | 120V AC 50/60 Hz |
| 26            | 240V AC 50/60 Hz |

d

| Lens Color |         |
|------------|---------|
| Code       | Color   |
| Blank      | No lens |
| A          | Amber   |
| B          | Blue    |
| C          | Clear   |
| G          | Green   |
| R          | Red     |
| W          | White   |

b

| Illumination Options |              |
|----------------------|--------------|
| Code                 | Description  |
| Blank                | Incandescent |
| L                    | LED‡         |

e

| Contact Block Termination Type* |                |
|---------------------------------|----------------|
| Pilot Lights                    |                |
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw△   |

**Note:** If large screw terminations are desired with a dual input transformer, (Cat. No. 800MR-PDT...), configurator space e must be left blank.

‡ LEDs available in red, green, amber, blue, and white. LED color must match lens color, except clear lens supplied with white LED and white lens supplied with amber LED.  
 § Only available with LED illumination option.  
 \* Small screw contact blocks must be ordered separately.  
 △ Only available with Push-to-test units.

Wobble Stick Units



Wobble Stick Unit  
Cat. No. 800MR-M1B

800MR –  M1   A     
                   a          b          c

a

| Operator Type |              |
|---------------|--------------|
| Code          | Description  |
| M1            | Wobble stick |

b

| Contact Cartridges |                 |
|--------------------|-----------------|
| Code               | Description     |
| Blank              | No contacts     |
| A                  | 1 N.O. - 1 N.C. |
| B                  | 2 N.O. - 2 N.C. |

c

| Contact Block Termination Type♦ |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

♦ Logic Reed and small screw contact blocks must be ordered separately.

Bul. 800MB  
Momentary Contact Push Button Units, Non-Illuminated

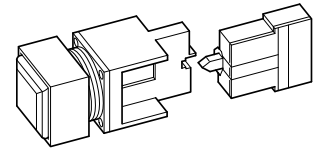


Flush Head Unit  
Cat. No. 800MB-CA1B



Extended Head Unit  
Cat. No. 800MB-CB1B

800 MB – CA 1 A — e  
a b c d e



a

| Bezel Color† |       |
|--------------|-------|
| Code         | Color |
| MB           | Black |

b

| Operator Type |               |
|---------------|---------------|
| Code          | Description   |
| CA            | Flush head    |
| CB            | Extended head |

c

| Color Insert |                 |
|--------------|-----------------|
| Code         | Color           |
| X            | No color insert |
| 1            | Green           |
| 3            | Orange          |
| 4            | Grey            |
| 5            | White           |
| 6            | Red★            |
| 7            | Blue            |
| 9            | Yellow          |

d

| Contact Block(s) |                     |
|------------------|---------------------|
| Standard         |                     |
| Code             | Description         |
| Blank            | No contacts         |
| D1               | 1 N.O.              |
| D2               | 1 N.C.              |
| A                | 1 N.O. - 1 N.C.     |
| A2               | 2 N.O.              |
| A4               | 2 N.C.              |
| A7               | 1 N.C.L.B. - 1 N.C. |
| B                | 2 N.O. - 2 N.C.     |

e

| Contact Block Termination Type§ |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

★ Red flush head must be ordered separately.  
† Grey bezel can be ordered separately.  
§ Logic Reed and small screw contact blocks must be ordered separately.

Momentary Contact Push Button Units, Illuminated

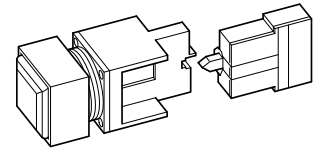


Flush Head Unit  
Cat. No. 800MB-CPA16GA



Extended Head Unit  
Cat. No. 800MB-CQB24RA

800 MB – CQ A L 06 R A \_\_\_\_\_  
 a b c d e f g h



a

| Bezel Color† |       |
|--------------|-------|
| Code         | Color |
| MB           | Black |

b

| Power Module Type |              |
|-------------------|--------------|
| Code              | Description  |
| CQ                | Full voltage |
| CP                | Transformer  |

c

| Operator Type |             |
|---------------|-------------|
| Code          | Description |
| A             | Flush       |
| B             | Extended    |

d

| Illumination Options |              |
|----------------------|--------------|
| Code                 | Description  |
| Blank                | Incandescent |
| L                    | LED§*        |

e

| Voltage      |             |
|--------------|-------------|
| Full Voltage |             |
| Code         | Description |
| 12           | 12V AC/DC   |
| 24           | 24V AC/DC   |
| 10           | 120V AC△    |
| Transformer  |             |
| Code         | Description |
| 16           | 120V AC     |
| 26           | 240V AC     |

f

| Color Insert |                            |
|--------------|----------------------------|
| Code         | Color                      |
| Blank        | No contacts                |
| X            | Packet of colored inserts◆ |
| A            | Amber                      |
| B            | Blue                       |
| C            | Clear                      |
| G            | Green                      |
| R            | Red★                       |

g

| Contact Block(s) |                     |
|------------------|---------------------|
| Standard         |                     |
| Code             | Description         |
| Blank            | No contacts         |
| D1               | 1 N.O.              |
| D2               | 1 N.C.              |
| A                | 1 N.O. - 1 N.C.     |
| A2               | 2 N.O.              |
| A4               | 2 N.C.              |
| A7               | 1 N.C.L.B. - 1 N.C. |
| B                | 2 N.O. - 2 N.C.▲    |

h

| Contact Block Termination Type▽ |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

★ Red flush head push buttons are not suitable for applications requiring extended head or other unguarded buttons capable of being operated quickly in emergencies, and they may not comply with applicable codes or standards.

† Grey bezels can be ordered separately.

§ LEDs are only available in red, green, amber, and white; lens color must match LED color.

▲ White LED available in 24V AC/DC only.

△ LED only.

◆ Packet of colored inserts, one of each color. Not available with LED option for illuminated devices.

▲ Only available with full voltage illumination option and standard stab terminations.

▽ Logic Reed and small screw contact blocks must be ordered separately.

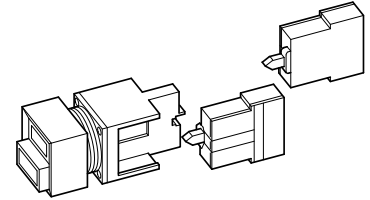
Dual Operator Momentary Contact Push Button Units, Non-Illuminated



**Dual Operator Black Bezel**  
Cat. No. 800MB-DB16B

800    MB    -DB16    B              

*a*                      *b*                      *c*                      *d*                      *e*



*a*

| Bezel Color★ |             |
|--------------|-------------|
| Code         | Description |
| MB           | Black       |

*b*

| Operator Type |  |
|---------------|--|
| Code          | Description  |
| DB16          | Dual push button unit<br>Upper — Flush green<br>Lower — Extended red |

*c*

| Contact Blocks |                 |
|----------------|-----------------|
| Standard       |                 |
| Code           | Description     |
| Blank          | No contact      |
| B              | 2 N.O. - 2 N.C. |

*d*

| Contact Block Termination Type‡ |                |
|---------------------------------|----------------|
| Code                            | Description    |
| Blank                           | Stab terminals |
| K                               | Large screw    |

*e*

| Legend Options |                                |
|----------------|--------------------------------|
| Code           | Description                    |
| Blank          | Upper — Blank<br>Lower — Blank |
| 50             | Upper — ON<br>Lower — OFF      |
| 64             | Upper — START<br>Lower — STOP  |

★ Grey bezels must be ordered separately.  
‡ Logic Reed and small screw contact blocks must be ordered separately.

Pilot Light Units



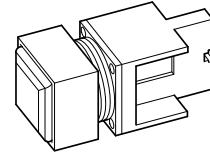
Pilot Light  
Cat. No. 800MB-CQ24RS



Push-to-Test Pilot Light  
Cat. No. 800MB-CPT16G

800 MB – CP L 24 R

*a*
*b*
*c*
*d*
*e*
*f*



*a*

| Bezel Color* |       |
|--------------|-------|
| Code         | Color |
| MB           | Black |

*b*

| Power Module Type |              |
|-------------------|--------------|
| Code              | Description  |
| CP                | Transformer  |
| CQ                | Full voltage |

*c*

| Illumination Options |                        |
|----------------------|------------------------|
| Code                 | Description            |
| Blank                | Incandescent           |
| L                    | LED*                   |
| T                    | Push-to-test           |
| TL                   | Push-to-test with LED* |

*d*

| Voltage      |             |
|--------------|-------------|
| Full Voltage |             |
| Code         | Description |
| 12           | 12V AC/DC   |
| 24           | 24V AC/DC   |
| 10           | 120V AC§    |
| Transformer  |             |
| Code         | Description |
| 16           | 120V AC     |
| 26           | 240V AC     |

*e*

| Lens Color |                            |
|------------|----------------------------|
| Code       | Color                      |
| X          | Packet of colored inserts* |
| A          | Amber                      |
| B          | Blue                       |
| C          | Clear/white                |
| G          | Green                      |
| R          | Red                        |

*f*

| Termination Type∇         |                |
|---------------------------|----------------|
| Pilot Lights              |                |
| Code                      | Description    |
| Blank                     | Stab terminals |
| Push-to-Test Pilot Lights |                |
| Code                      | Description    |
| Blank                     | Stab terminals |
| K                         | Large screw△   |

★ LEDs are only available in red, green, amber, and white; lens color must match LED color.  
 § LED only.  
 \* Packet of colored inserts, one of each color. Not available with LED illumination option.  
 △ Only available with full voltage power module and standard stab terminations.  
 ▲ Grey bezel can be ordered separately.  
 ∇ Small screw contact blocks must be ordered separately.

## Specifications★

| Electrical Ratings  |  |                              |
|---|--|------------------------------|
| Contact Ratings   | Refer to the Contact Ratings tables below.   |                              |
| Dielectric Strength   | 1600V for one minute<br>1300V for one minute (Logic Reed)  |                              |
| Electrical Design Life Cycles   | 750 000 at maximum rated load<br>200 000 at maximum rated load (Logic Reed)  |                              |
| Mechanical Ratings  |  |                              |
| 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 milliseconds $\geq$ 25 G (contact fragility) and no damage at 100 G                     |                              |
| Degree of Protection  | Type 13; IEC I44 IP65 Oiltight   |                              |
| Mechanical Design Life Cycles   |  |                              |
| Push Buttons  | 1 000 000 minimum  |                              |
| Potentiometers  | 100 000 minimum  |                              |
| All other devices   | 200 000 minimum  |                              |
| Contact Operation   | Contact blocks with Bifurcated spanner:Slow make and break, simple break.<br>Logic Reed Contact Blocks:Snap-action |                              |
| Typical Operating Forces  |  |                              |
| Operators without contact blocks  | 2.45 lb (10.8 N)   |                              |
| Push-Pull Units   | 8 lb (35.3 N) push to <b>in</b> position<br>4 lb (17.7 N) maximum pull to <b>out</b> position                      |                              |
| Contact Blocks  | Standard — 1.5 lb (6.7 N)<br>Logic Reed — 0.616 lb (2.6 N)   |                              |
| Environment   |  |                              |
| Temperature Range   | Operating  | 32...131 °F (0...55 °C)      |
|   | Storage  | -40...+185 °F (-40...+85 °C) |
| <b>Note:</b> Operating temperatures at +32 °F (0 °C) are based on the absence of freezing moisture and liquids. |  |                              |
| Humidity  | 50% at 104 °F (40 °C)  |                              |
| Panel Thickness Requirements  | 1/16...1/4 in. (1.6...6.4 mm)  |                              |

★ Performance Data — see note on page 3.

## Certifications

UL Listed —File: E14840,  
E10314  
Guide: NKCR, NOIV  
CSA Certified: LR1234, LR11924  
IEC Compliance, IEC 529

## Standard Contact Ratings

(IEC 337-1) (NEMA ICS 2-125) Maximum continuous current  $I^{\text{th}}$  10 A. Bulletin 800M units have control circuit ratings with 800M contact blocks as follows:

| Maximum Operational Volts Ue | Utilization Category |      | Rated Operational Currents |         |        |
|------------------------------|----------------------|------|----------------------------|---------|--------|
|                              | IEC                  | NEMA | Volts Ue                   | Make    | Break  |
| AC 300                       | AC-II                | A300 | 120...300                  | 7200 VA | 720 VA |
|                              |                      |      | 72...120                   | 60 VA   | 720 VA |
|                              |                      |      | 24...72‡                   | 60 A    | 10 A   |

‡ For applications below 24V and 24 mA, Logic Reed contacts are recommended.

## Logic Reed Contact Ratings

Maximum: 150V AC, 0.15 A, 8 VA and 30V DC, 0.06 A, 1.8 VA. Should only be used with resistive loads.

## Wire Capacity

Stab Termination Contact Blocks —

Accepts two 0.110 x 0.032 in. push-on connectors or one 0.250 x 0.032 in. push-on connector.

Small Screw Contact Blocks —

Accepts one #14 or two #16 AWG solid or stranded wires.

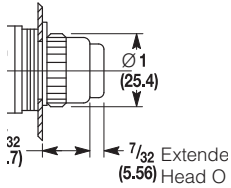
Large Screw Termination Contact Blocks —

Accepts two #12 AWG solid or stranded wires.

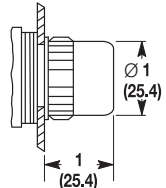
**Approximate Dimensions**

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

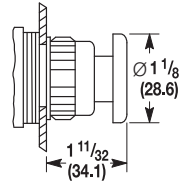
**Bul. 800MR Extension in Front of Panel**



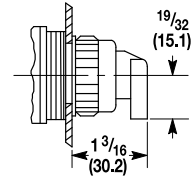
**Round Push Button  
Flush, Extended and  
Illuminated Extended**



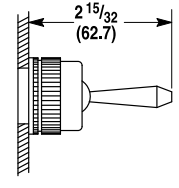
**Round Push Button  
Illuminated Flush**



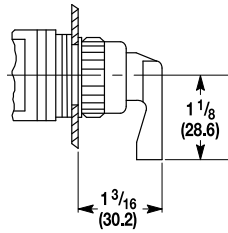
**Round Push Button  
Mushroom**



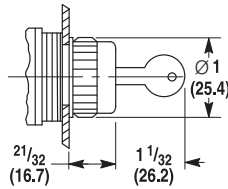
**Round Selector Switch  
and Potentiometer  
and Standard Knob**



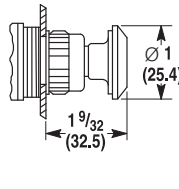
**Panel Wobble  
Stick Unit**



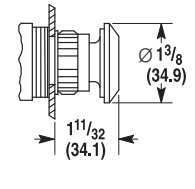
**Round Selector Switch  
and Potentiometer  
and Wing Lever**



**Round Cylinder Lock  
Selector Switch**



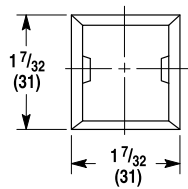
**Round Push-Pull**



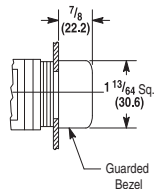
**Twist or Pull  
Release Units**

**Bul. 800MB Front View of Square Units**

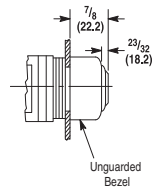
**CAUTION:** To avoid possible excessive heat, clusters of nine or more continuously illuminated units mounted in a small enclosure should be spaced at 1-1/2 in. (38.1 mm) minimum centers in one direction.



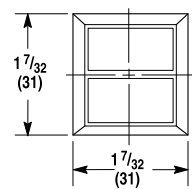
**Unit without Insert  
and Backlit Unit**



**Square Backlit  
with Guarded Bezel**

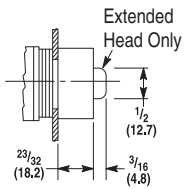


**Square Backlit  
with Unguarded Bezel**

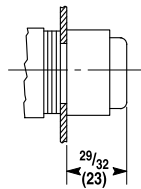


**Dual Operator Unit**

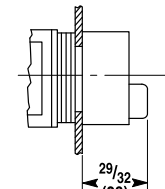
**Bul. 800MB Extension in Front of Panel**



**Square Push Button  
Flush and Extended**



**Square Push Button  
Large Extended**

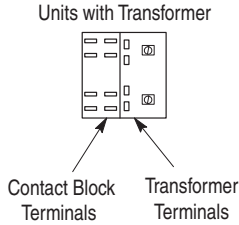
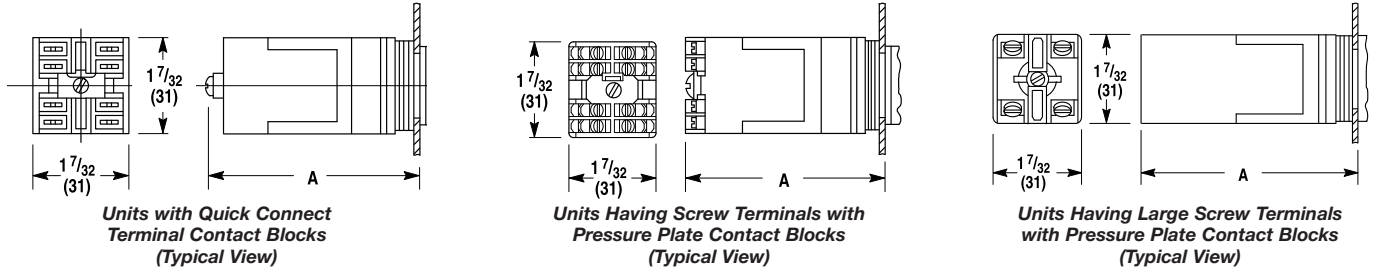


**Square Push Button  
Dual Operator**



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

**Extension Behind Panel**



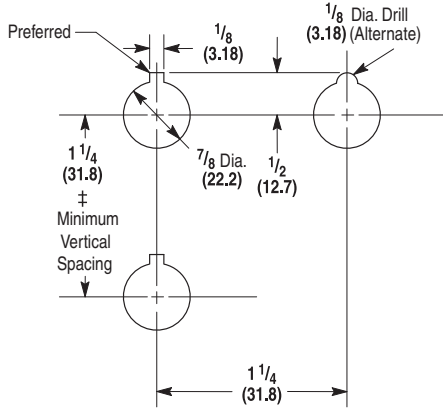
**Panel Depth Requirements —**

1/16...1/4 in. (1.6...6.4 mm)

| Dimension A            |                                    |                |                |                |               |                            |  |                |                |               |               |                            |
|------------------------|------------------------------------|----------------|----------------|----------------|---------------|----------------------------|--|----------------|----------------|---------------|---------------|----------------------------|
| Description            | Push Button                        | Pilot Light    | Sel. Switch    | Cyl. Lock      | Pot.          | Push-Pull or Twist Release | Push Button  | Pilot Light    | Sel. Switch    | Cyl. Lock     | Pot.          | Push-Pull or Twist Release |
| <b>Non-Illuminated</b> | Units with Quick Connect Terminals |                |                |                |               |                            | Units Having Small Screw Terminals with Pressure Plates        |                |                |               |               |                            |
|                        | 2-1/4 (57.2)                       | —              | 2-15/32 (62.7) | 3-1/2 (88.9)   | 2-1/32 (51.6) | 2-3/4 (69.8)               | 2-5/16 (59)  | —              | 2-17/32 (64.3) | 3-9/16 (90.5) | 2-1/32 (51.6) | 2-13/16 (71.4)             |
| <b>Illuminated</b>     | Full Voltage                       | 2-1/4 (57.2)   | 2-1/4 (57.2)   | 2-15/32 (62.7) | —             | 2-3/4 (69.8)               | 2-25/32 (70.6)   | 2-25/32 (70.6) | 2-17/32 (64.3) | —             | —             | 2-13/16 (71.4)             |
|                        | Transformer                        | 2-23/32 (69.1) | 2-23/32 (69.1) | 2-29/32 (73.8) | —             | 3-3/32 (78.6)              | 2-25/32 (70.6)   | 2-25/32 (70.6) | 2-31/32 (75.4) | —             | —             | 3-5/32 (80.1)              |
| <b>Non-Illuminated</b> |                                    |                |                |                |               |                            | <b>Units Having Large Screw Terminals with Pressure Plates</b> |                |                |               |               |                            |
|                        |                                    |                |                |                |               |                            | 2-45/64 (68.6)   | —              | 2-59/64 (74.2) | 3-15/16 (100) | —             | 3-13/64 (81.4)             |
| <b>Illuminated</b>     |                                    |                |                |                | Full Voltage  |                            | 3-11/64 (80.6)   | 3-11/64 (80.6) | 3-23/64 (85.3) | —             | —             | 3-13/64 (81.4)             |
|                        |                                    |                |                |                | Transformer   |                            | 3-11/64 (80.6)   | 3-11/64 (80.6) | 3-23/64 (85.3) | —             | —             | 3-35/64 (90.1)             |

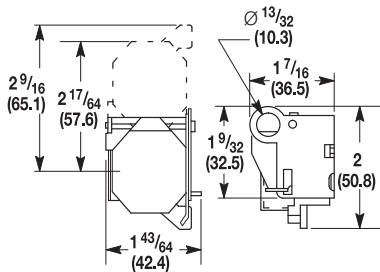
**Approximate Mounting Dimensions**

**Caution:** To avoid possible excessive heat, clusters of nine or more continuously illuminated units mounted in a small enclosure should be spaced at 1-1/2 in. (38.1 mm) minimum centers in one direction.



‡ Large screw terminal contact blocks require a minimum vertical spacing of 1-37/64 in. (40 mm); selector switches with wing lever knobs require 2-1/4 in. (57.1 mm) vertical and horizontal minimum spacing and large round legend plates require 1-1/2 in. (38.1 mm) minimum spacing.

| Shipping Weights in Ounces (kg) |                 |              |              |                     |                 |              |              |
|---------------------------------|-----------------|--------------|--------------|---------------------|-----------------|--------------|--------------|
| Type of Unit                    |                 | Weight       | Type of Unit |                     | Weight          |              |              |
| Push Buttons                    | Non-Illuminated |              | 3-1/4 (0.09) | Selector Switches   | Non-Illuminated | 4 (0.11)     |              |
|                                 | Illuminated     | Full Voltage | 3-1/2 (0.10) |                     | Illuminated     | Full Voltage | 4 (0.11)     |
|                                 |                 | Transformer  | 5 (0.14)     |                     |                 | Transformer  | 5-1/2 (0.16) |
| Pilot Lights                    | Pilot Light     |              | 2-1/4 (0.06) | Push-Pull Units     | Non-Illuminated |              | 4-1/2 (0.13) |
|                                 | Push-to-Test    |              | 3 (0.09)     |                     | Illuminated     | Full Voltage | 4-1/2 (0.13) |
|                                 | Pilot Light     |              | 4-1/2 (0.13) |                     |                 | Transformer  | 5-1/2 (0.16) |
|                                 | Push-to-Test    |              | 5 (0.14)     |                     |                 |              |              |
| Cylinder Lock                   |                 |              | 6 (0.17)     | Potentiometer Units |                 |              | 4 (0.11)     |

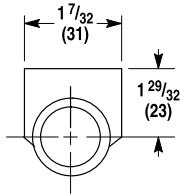


**Padlocking Cover★**  
Cat. No. 800MR-N6

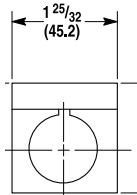
★ When using a padlocking cover and depending upon the types of adjacent units involved, the minimum vertical or horizontal spacing may have to be increased for operating clearance.

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

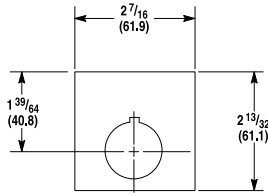
**Legend Plates**



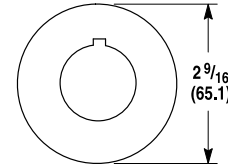
**Standard Half Round Legend Plate★**



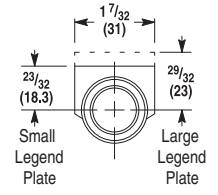
**Standard Legend Plate§**



**Large Size‡**



**Round‡**



**Small/Large Legend Plate**

★ The Bulletin 800MR large half round legend plates are not recommended for use with the twist-release units because of the operator knob size. The legend plate is virtually unreadable. Push-pull units can be mounted in a 1-1/4 in. minimum horizontal spacing when no legend plate is used. Vertical spacing is 1-1/2 in. when the Bulletin 800MR large half round legend plate is used.

‡ These Bulletin 800MR legend plates consist of Bulletin 800T legend plates with Cat. No. 800MR-N50 adapter rings.

## Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

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