

# IEC Push Button Specifications

Bulletin Numbers 598, 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

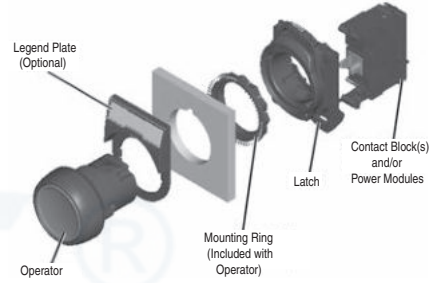


*Plastic Latch with Contact Block*



*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                             | ✓  |