

IEC Push Button Specifications

Bulletin Numbers 598, 800F, 800FC, 800FD, 800B, 800MB, and 800MR

| Topic | Page |
|---|------|
| 800F 22.5 mm Push Buttons | |
| Specifications | 3 |
| Momentary Push Buttons | 6 |
| Pilot Lights | 10 |
| Selector Switches | 11 |
| Key-Operated Selector Switches | 16 |
| Push-Pull Operators | 18 |
| Momentary Mushroom Push Buttons | 22 |
| Momentary Multi-Operators | 23 |
| Reset Operators | 26 |
| Selector Push Button Operators | 27 |
| Toggle Switch Operators | 28 |
| Back-of-Panel Components | 29 |
| Assembled Stations with DeviceNet | 31 |
| Legend Plates/Caps | 32 |
| Approximate Dimensions | 33 |
| Assembled Station Pinout Chart | 39 |
| 598 General Purpose Push Button Enclosures | |
| 800FC 22.5 mm Configured Pendant Stations | |
| Operator Mounting/Sequence | 41 |
| 1-, 2-, and 3-Speed Operators | 42 |
| Configured Pendant Stations | 43 |
| Specifications | 45 |
| Approximate Dimensions | 47 |

| Topic | Page |
|---|------|
| 800FD 22.5 mm Monolithic Push Buttons | |
| Momentary Push Button Operators | 49 |
| Pilot Light Devices | 50 |
| Selector Switch Operators | 51 |
| Push-Pull/Twist-to-Release Mushroom Operators | 51 |
| Specifications | 52 |
| Approximate Dimensions | 53 |
| 800B 16 mm Push Buttons | |
| Specifications | 54 |
| Operator Assembly Sequence/Target Table and Operator Position | 55 |
| Approximate Dimensions | 56 |
| 800MR/800MB IEC Oiltight Operators | |
| 800MR Momentary Contact Push Buttons | 57 |
| 800MR Push-Pull Operators | 59 |
| 800MR Selector Switches | 61 |
| 800MR Pilot Lights & Wobble Sticks | 66 |
| 800MB Momentary Contact Push Buttons | 67 |
| 800MB Pilot Lights | 70 |
| 800MB/MR Specifications | 71 |
| 800MB/MR Approximate Dimensions | 72 |

Additional Resources

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

| Resource | Description |
|---|---|
| Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1 | Provides general guidelines for installing a Rockwell Automation industrial system. |
| Product Certifications website, http://www.ab.com | 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

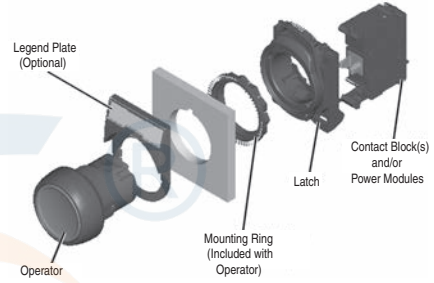


Plastic Latch with Contact Block



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) |
| 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 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 | ✓ |