22.5 mm Push Buttons

Product Selection

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







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



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

		40 mm Mushroom (Trigger Action) Twist-to-Release		40 mm Mushroom (Trigger Action) Push-Pull	
		Plastic	Metal	Plastic	Metal
Color	Pkg. Quantity	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Red	1	800FP-MT44	800FM-MT44	800FP-MP44	800FM-MP44

800F

a

Operator Construction		
Code	Code Description	
Р	Round plastic operator (IP66, Type 4/4X/13)	
М	Round metal operator (IP66, Type 4/13)	

D				
Operator Type				
	Push, Twist-to-Release≻			
Code	Туре			
MT3	30 mm color cap			
MT4	40 mm color cap			
MT6	60 mm color cap			
	Push-Pull ↑			
Code	Туре			
MP4	40 mm color cap			
Half-Dome Push-Pull+				
Code	Туре			
MP9	90 mm color cap\$			

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

445 -

a±3*	
Engraving	
Description	

	Engraving		
Code	Description		
Blank	No engraving on cap		
LE	EMO laser engraved		
Е	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.

- SAFETY-SHU01_-EN-E.

 Only available with red color cap.

 For EMO guards, see page 10-109.

 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.

10-86

Overview, Continued

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

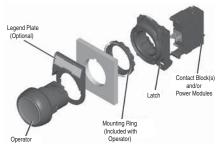
- Rugged snap-fit design for plastic or metal latch
- Stackable contact blocks
- Rotating collar for easy one-hand latch removal
- Color-coded contact block plungers for contact identification





Metal Latch with Contact Block

Assembly Overview



Specifications*

Front-of-Panel (Operators)

		Mechanical Ratings		
Description		Plastic (Bulletin 800FP)	Metal (Bulletin 800FM)	
Vibration (assembled to panel)		Tested at 102000 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		
Mechanical durability per	1 000 000 Cycles	Multi-function, selector switch, key selector switch, selector jog, SensEject™ key selector switch		
EN 60947-5-1 (Annex C)	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)		
Manustin a taurus	Plastic	1.7 N•m	(15 lb•in)	
Mounting torque	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		5095% RH from 2560 °C (77140 °F)		

- * Performance Data see page Important-3 of the Industrial Controls catalog.
- 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).

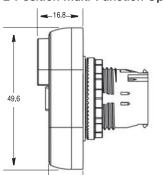
Product Certifications

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	✓	

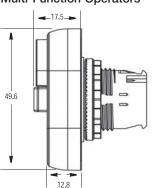


Dimensions in millimeters. Dimensions are not intended to be used for manufacturing purposes.

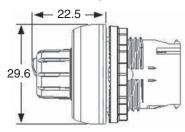
Illuminated and Non-Illuminated 2-Position Multi-Function Operators



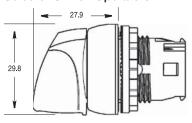
Non-Illuminated 3-Position **Multi-Function Operators**



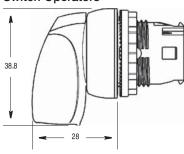
Potentiometer Operator



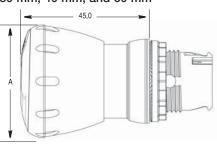
Illuminated and Non-Illuminated Knob **Selector Switch Operators**



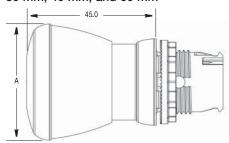
Non-Illuminated Knob Lever Selector **Switch Operators**



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

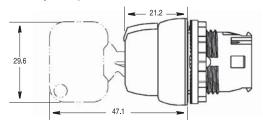


Illuminated and Non-Illuminated **Push-Pull Mushroom Operators** 30 mm, 40 mm, and 60 mm

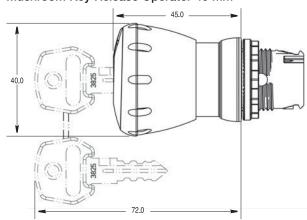


Operator	А
30 mm	30.0
40 mm	40.0
60 mm	60.0

Key Selector Switch and Key Ejected SensEject Operators



Mushroom Key Release Operator 40 mm





10