

Bulletin 800F
22.5 mm Push Buttons
 Product Selection

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

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

Color	Operator Type 	Pkg. Quantity	Standard Knob	
			Plastic Cat. No.	Metal Cat. No.
Black with White Insert		1	800FP-SM22	800FM-SM22

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

800F P - S M2 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)

b

Operator Type	
Code	Description
S	Standard knob
H	Knob lever*

c

Operator Function	
Code	Type
M2	Maintained (60° switching angle)
L2	Spring return from left (60° switching angle)
R2	Spring return from right (60° switching angle)

e

Orientation	
Code	Description
Blank	Standard
N	90° offset†

f

Packaging	
Code	Description
Blank	1 per package
BP	10 per package‡

d

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

10 * 30 mm hole spacing will not work if knob lever is used. See page 10-125 for recommended operator panel spacing.
 † For use in vertical mount Bul. 800F enclosures.
 ‡ Not available with 90° offset orientation.

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

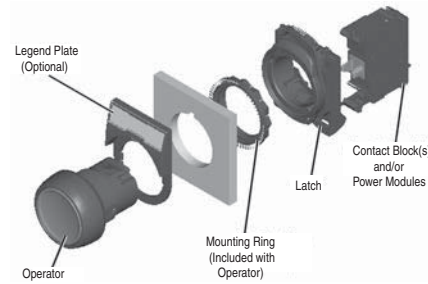


Plastic Latch with Contact Block



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 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 — 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.

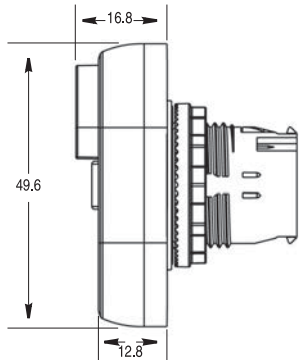
§ Operating temperatures below 0 °C (32 °F) are based on the absence of freezing moisture and liquids, UL Recognized to 55 °C (131 °F) - Incandescent module max. 40 °C (104 °F).

Product Certifications

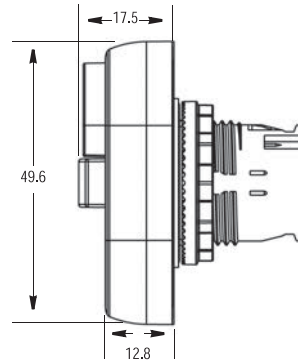
Certifications	UR/UL, CSA, CCC, CE
Standards Compliance — CE Marked	NEMA ICS-5; UL 508, EN ISO 13850, EN 60947-1, EN 60947-5-1, EN 60947-5-5
Terminal Identification	EN/IEC 60947-1
Shipping Approvals	ABS
RoHS	✓

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

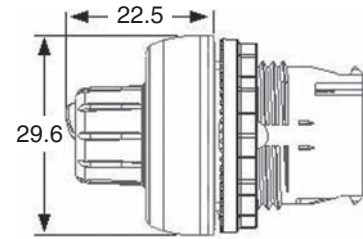
Illuminated and Non-Illuminated 2-Position Multi-Function Operators



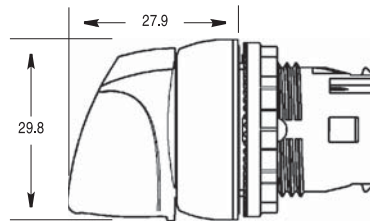
Non-Illuminated 3-Position Multi-Function Operators



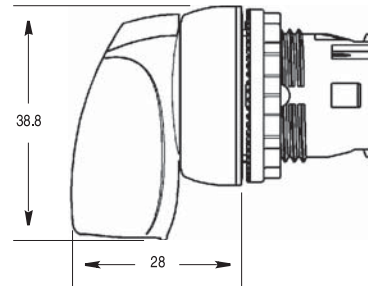
Potentiometer Operator



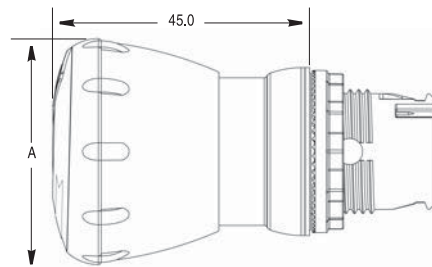
Illuminated and Non-Illuminated Knob Selector Switch Operators



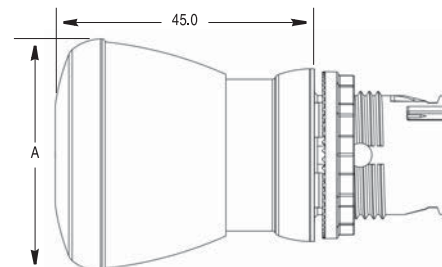
Non-Illuminated Knob Lever Selector Switch Operators



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

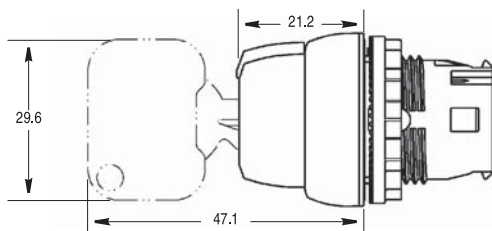


Illuminated and Non-Illuminated Push-Pull Mushroom Operators 30 mm, 40 mm, and 60 mm



Operator	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

