### 3-Position Push-Pull Operators, Illuminated & Non-Illuminated — Mushroom.



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

Target Table and Operator Position∗			
Contact Type +	Out	Center	In
N.O.	0	0	X
N.C.E.B.	X	0	0
N.C.L.B.	X	X	0

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.

Operator Function	Operator Type	Color	Pkg. Quantity	Cat. No.
		Black§		800FM-MM42E3
	Non-Illuminated	Green		800FM-MM43E3
		Red≻		800FM-MM44E3
Momentary Out, Maintained		Amber‡	]	800FM-LMM40E3
Center, Momentary In		Green	-	800FM-LMM43E3
	Illuminated*	Red		800FM-LMM44E3
		Blue‡		800FM-LMM46E3
		Clear‡		800FM-LMM47E3
	Non-Illuminated Illuminated∜	Black§	1	800FM-MP42E3
		Green		800FM-MP43E3
		Red≻		800FM-MP44E3
Momentary Out, Maintained		Amber‡		800FM-LMP40E3
Center, Maintained In		Green		800FM-LMP43E3
		Red		800FM-LMP44E3
		Blue‡		800FM-LMP46E3
		Clear‡		800FM-LMP47E3

 $\frac{\mathsf{M}}{\mathsf{a}} - \underbrace{\mathsf{L}}_{\mathsf{b}} \quad \frac{\mathsf{M}\mathsf{M}}{\mathsf{c}} \quad \frac{\mathsf{4}}{\mathsf{d}} \quad \frac{\mathsf{4}}{\mathsf{e}} \quad \frac{\mathsf{E3}}{\mathsf{f}}$ 

a

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

b

Operator Type		
Code	Description	
Blank	Non-illuminated	
L	Illuminated≉	

	Operator Function		
Code	Description		
ММ	Momentary out, Maintained center, Momentary in		
MP	Momentary out, Maintained center, Maintained in		

d

	Cap Size
Code	Description
4	40 mm plastic

	Cap Color
Code	Description
0	Amber‡#
2	Black§
3	Green
4	Red
6	Blue‡#
7	Clear‡#

f

	Positions
Code	Description
E3	3-position

- Sold as stand-alone operator only. Not available as a composite catalog number.
- \* 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.
- \* LED module required for illumination. Cannot use incandescent module.
- ‡ Available in illuminated only.
- #Use of white LED is recommended.
- § Available in non-illuminated only.
- ➤ Replacement caps are available for this device. Order Cat. No. 800F-AMP4.

### 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 pan	el)	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 wit	h 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).

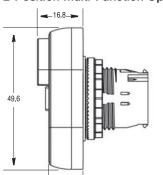
#### **Product Certifications**

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	✓

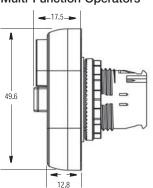


Dimensions in millimeters. Dimensions are not intended to be used for manufacturing purposes.

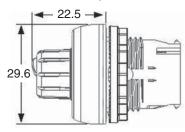
# Illuminated and Non-Illuminated 2-Position Multi-Function Operators



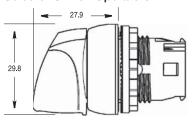
# Non-Illuminated 3-Position **Multi-Function Operators**



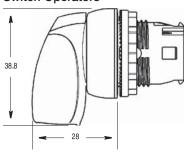
### **Potentiometer Operator**



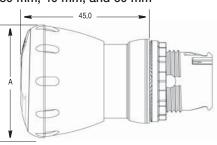
Illuminated and Non-Illuminated Knob **Selector Switch Operators** 



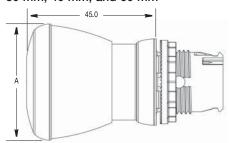
Non-Illuminated Knob Lever Selector **Switch Operators** 



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

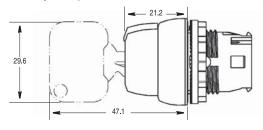


Illuminated and Non-Illuminated **Push-Pull Mushroom Operators** 30 mm, 40 mm, and 60 mm

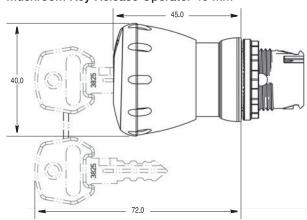


Operator	А
30 mm	30.0
40 mm	40.0
60 mm	60.0

Key Selector Switch and Key Ejected SensEject Operators



### Mushroom Key Release Operator 40 mm





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