Momentary Push Button Operators, Non-Illuminated — with Two-Color Molded Legend Caps



Flush Operator Cat. No. 800FP-F301

				Flush		Extended	
Button	Text	Legend	Pkg.	Plastic	Metal	Plastic	Metal
Color	Color	Text	Quantity	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Croon	White	START		800FP-F301	800FM-F301	-	-
Green		I		800FP-F306	800FM-F306	-	-
Red	White	STOP	1	800FP-F402	800FM-F402	800FP-E402	800FM-E402
		0	1	-	-	800FP-E405	800FM-E405
Black	White	$\rightarrow$		800FP-F208	800FM-F208	800FP-E208	800FM-E208

a

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

Operator Type			
Code Description			
F	Flush		
Е	Extended		
G	Guarded		

Code	Color
_	
0	Orange
1	White
2	Black
3	Green
4	Red
5	Yellow
6	Blue

d

	Legend Text∗*‡§		
Code	Text		
Blank	No Text		
01	START		
02	STOP		
05	0		
06	1		
08	$\rightarrow$		
09	Forward <b>.</b> ♣		
10	Reverse♣		
11	R		
	· · · · · · · · · · · · · · · · · · ·		

- \* For custom laser-engraved legend cap, order "no cap" option on page 10-73 plus custom laser-engraved cap on page 10-115. 

  White and yellow caps have black text. All other color caps have white text.
- § Legend button cap supplied loose for customer installation.
- Available for flush only.
  Valid color cap/legend text codes include:

	Text		
Color	Flush Caps	Extended Caps	
White	FORWARD, REVERSE, START, I,→, R	→ , R	
Black	FORWARD, REVERSE, → ,	STOP, O,→, R	
Green	FORWARD, REVERSE, START, I,→	<b>→</b>	
Red	FORWARD, REVERSE, STOP, O, →	STOP, O,→	
Yellow	FORWARD, REVERSE, →	$\rightarrow$	
Blue	FORWARD, REVERSE, → ,	→ , R	

### Overview, Continued

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

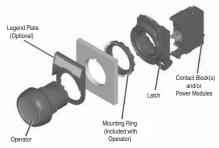
- Rugged snap-fit design for plastic or metal latch
- Stackable contact blocks
- Rotating collar for easy one-hand latch removal
- Color-coded contact block plungers for contact identification





Metal Latch with Contact Block

## **Assembly Overview**



### Specifications\*

### Front-of-Panel (Operators)

Mechanical Ratings				
Descripti	on	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 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)		
Married at America	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	✓	



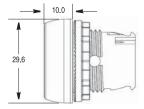
### 22.5 mm Push Buttons

### **Approximate Dimensions**

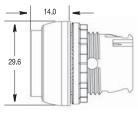
### **Approximate Dimensions**

Dimensions in millimeters. Dimensions are not intended to be used for manufacturing purposes. Refer to RAISE software for additional dimensional information.

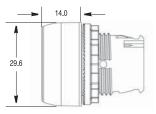
# Non-Illuminated and Illuminated Momentary Flush Push Button Operators



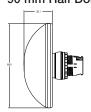
## Illuminated and Non-Illuminated Momentary Extended Push Button Operators



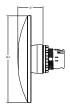
### Non-Illuminated Guarded, Illuminated and Non-Illuminated Alternate Action Push Button Operators



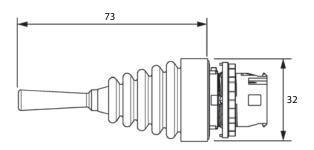
## 90 mm Half Dome



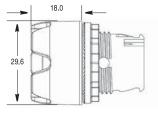
90 mm Mushroom



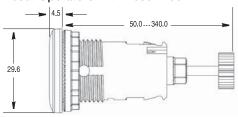
## **Toggle Switch Operators**



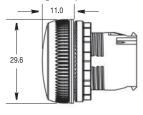
# Illuminated Momentary Guarded Push Button Operators



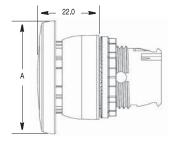
### Reset Operators with Reset Rod



### **Pilot Light Operators**



### Illuminated and Non-Illuminated Momentary Mushroom Operators 40 mm and 60 mm



Operator	Α
40 mm	39.8
60 mm	59.8

## **Selector Jog Operators**

