Complete Devices∗

Non-Illuminated Push Buttons, Momentary (Screw Terminal Connections)

	Description	Type of Contact N.O.	Type of Contact N.C.	Color	Construction	Pkg. Quantity	Cat. No.
				Green	Plastic operator/plastic latch		**800FP-F3PX10**
				Black			**800FP-F2PX10**
	Flush	1	—	Green	Metal operator/metal latch		**800FM-F3MX10**
				Black			**800FM-F2MX10**
	Extended	—	1	Red	Plastic operator/plastic latch	1	**800FP-E4PX01**
					Metal operator/metal latch		**800FM-E4MX01**
				Green/ Red	Plastic operator/plastic latch		**800FP-U2E4F3PX11**
					Metal operator/metal latch		**800FM-U2E4F3MX11**
	Multi-function (Flush/extended)	1	1	Green "1"/ Red "0"	Plastic operator/plastic latch		**800FP-U2EFFEPX11**
					Metal operator/metal latch		**800FM-U2EFFEMX11**

Cat. No. 800FP-F3PX10

Cat. No. 800FM-E4MX01

Cat. No. 800FP-U2E4F3PX10

Non-Illuminated Selector Switches (Screw Terminal Connections)

	Description	Type of Contact N.O.	Type of Contact N.C.	Style	Construction	Pkg. Quantity	Cat. No.
		1	—	2-position maintained	Plastic operator/plastic latch		**800FP-SM22PX10**
		1	1	2-position maintained	Plastic operator/plastic latch		**800FP-SM22PX11**
	Standard lever, black	1	—	2-position maintained	Metal operator/metal latch	1	**800FM-SM22MX10**
		1	1	2-position maintained	Metal operator/metal latch		**800FM-SM22MX11**
		2	—	3-position maintained	Plastic operator/plastic latch		**800FP-SM32PX20**
		2	—	3-position maintained	Metal operator/metal latch		**800FM-SM32MX20**

Cat. No. 800FP-SM22PX10

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∗ For complete devices not listed and configuration assistance, see RAISE product selection software (http://www.ab.com/raise).

Bulletin 800F Plastic and Metal Operators

- 22.5 mm mounting hole
- IP65/66, Type 4/4X/13
- Internationally rated operators

Table of Contents
See below.

TABLE OF CONTENTS

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

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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
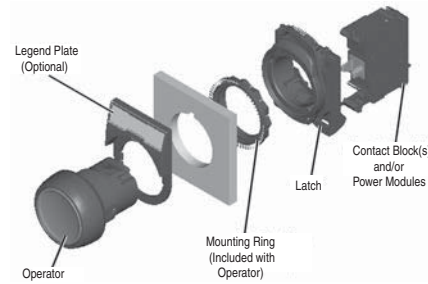• Color-coded contact block plungers for contact identification

Plastic Latch with Contact Block   *Metal Latch with Contact Block*

Assembly Overview

Legend Plate (Optional)
Contact Block(s) and/or Power Modules
Latch
Mounting Ring (Included with Operator)
Operator

Specifications∗

Front-of-Panel (Operators)

Mechanical Ratings			
Description		**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).
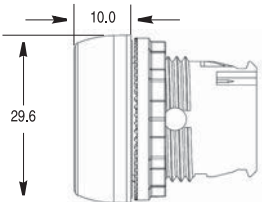
Product Certifications

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	✓

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22.5 mm Push Buttons
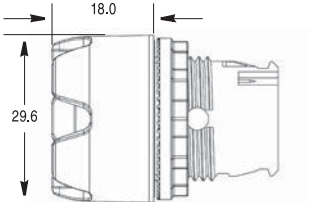## Approximate Dimensions

Approximate Dimensions
Dimensions in millimeters. Dimensions are not intended to be used for manufacturing purposes. Refer to RAISE software for additional dimensional information.
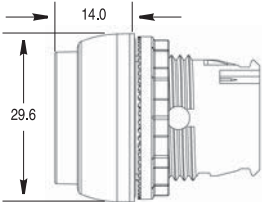
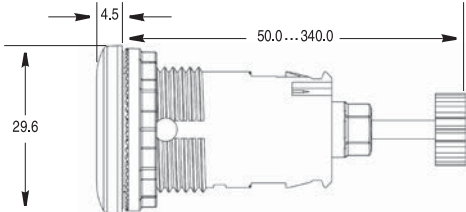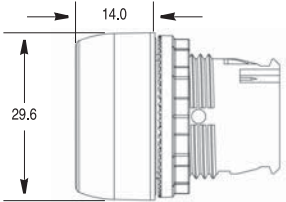**Non-Illuminated and Illuminated Momentary Flush Push Button Operators**

Illuminated and Non-Illuminated Momentary Extended Push Button Operators

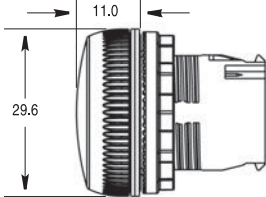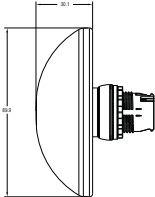**Non-Illuminated Guarded, Illuminated and Non-Illuminated Alternate Action Push Button Operators**

90 mm Half Dome   **90 mm Mushroom**
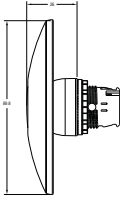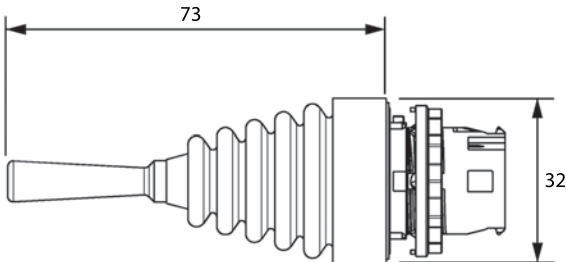
Toggle Switch Operators

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
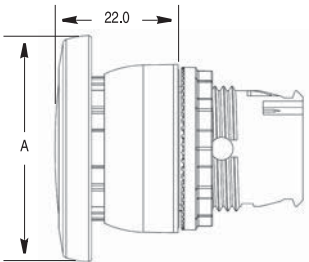
Operator	A
40 mm	39.8
60 mm	59.8

Selector Jog Operators

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Allen-Bradley