	<p>Bulletin 800FC — Configured Pendant Stations</p> <ul style="list-style-type: none"> • 3-, 5-, 7-, and 9-button configurations • 1-, 2-, and 3-speed push buttons • IP66, NEMA Type 4/4X/13 • Finger-safe contact blocks • Buttons are flush-mounted with the enclosure to reduce accidental operation • Use of standard Bul. 800F extended push buttons • Electrical and mechanical interlocks 	<p>Table of Contents</p> <p>Product Selection 10-128</p> <p>Catalog Number</p> <p>Explanation 10-132</p> <p>Accessories..... 10-134</p> <p>Specifications..... 10-136</p> <p>Approximate Dimensions * 10-138</p> <p>Product Certifications</p> <table border="1"> <tr> <td>Certifications</td> <td>UR/UL, CSA, CCC, CE</td> </tr> <tr> <td>Standards Compliance</td> <td>NEMA ICS-5, UL 508, CSA C22.2 No. 14, EN ISO 13850, EN 60947-1, EN 60947-5-1, EN 60947-5-5</td> </tr> <tr> <td>Terminal Identification</td> <td>EN/IEC 60947-1</td> </tr> <tr> <td>RoHS</td> <td>✓</td> </tr> </table>	Certifications	UR/UL, CSA, CCC, CE	Standards Compliance	NEMA ICS-5, UL 508, CSA C22.2 No. 14, EN ISO 13850, EN 60947-1, EN 60947-5-1, EN 60947-5-5	Terminal Identification	EN/IEC 60947-1	RoHS	✓
	Certifications	UR/UL, CSA, CCC, CE								
Standards Compliance	NEMA ICS-5, UL 508, CSA C22.2 No. 14, EN ISO 13850, EN 60947-1, EN 60947-5-1, EN 60947-5-5									
Terminal Identification	EN/IEC 60947-1									
RoHS	✓									
<p>Bulletin 800FP — 1-, 2-, and 3-Speed Operators</p> <ul style="list-style-type: none"> • IP65/IP66, NEMA Type 4/4X/13 • Engineering grade thermoplastics • Chemical-resistant for harsh environments • Booted operator 	<p>Mechanical Interlock</p> <ul style="list-style-type: none"> • 1-, 2-, and 3-speed operators • Screw-down mounting • 3-across x 1 deep contact blocks • Snap-down contact blocks • Bifurcated and Quad Connect contact blocks • Color-coded contact blocks 									

Operator Mounting - Vertical vs. Horizontal Definition

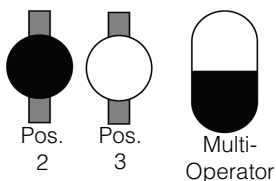
Due to the design of the enclosures, operators are mounted in both a vertical and horizontal orientation. The easiest way to visualize the operator orientation is by observing the contact block direction attached to the operators. If the contact blocks are mounted vertically the operator is mounted vertically in the enclosure. Vertical mounted operators are only found in position 2 & 3 of the 3-hole enclosure. If the contact blocks are mounted horizontally the operator is mounted horizontally in the enclosure. Horizontal mounted operators are found in position 1 of the 3-hole enclosure and all positions of the 5-...9-hole enclosures. It is necessary to know this when ordering individual operators for populating at the customer location.

Operator Sequence when using a Mechanical Interlock

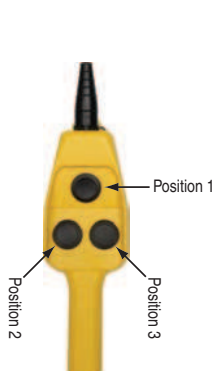
The 1-, 2-, and 3-speed operators can be mounted with either our standard **Cat. No. 800F-ALP** latch or a mechanical interlocking latch (**Cat. No. 800FC-ALP**). For the 3-hole enclosure, the mechanical interlock can only be located in positions 2 & 3, with the black operator being located in position 2 and the white operator being located in position 3. For the 5-...9-hole enclosures, the mechanical interlock can be located in any two adjacent positions. For the 5-...9-hole enclosures, the white operator will be located in position X of the mechanical interlock and the black operator will be located in position X+1 of the mechanical interlock.

Operator Assembly Sequence and Mounting Orientation

Vertical Mount Operators



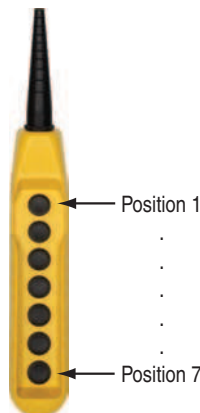
Horizontal Mount Operators



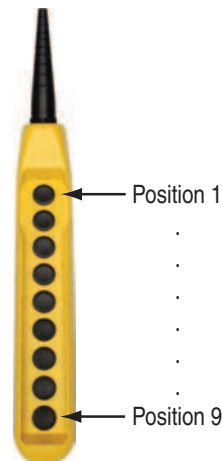
3-Hole Enclosure*



5-Hole Enclosure*



7-Hole Enclosure*



9-Hole Enclosure*

* Operator in Position 1 is mounted horizontal, contact blocks are horizontal. Operators in Positions 2 & 3 are mounted vertical, contact blocks are vertical.
 * Operators in all positions are mounted horizontal, contact blocks are horizontal.

Bulletin 800FC
22.5 mm Configured Pendant Stations
 Product Selection

Product Selection
 Enclosures

Enclosure Type	Pkg. Quantity	Pendants — Yellow Plastic IP66 Cat. No.*
3-hole	1	800FC-3Z
5-hole		800FC-5Z
7-hole		800FC-7Z
9-hole		800FC-9Z

* Housings supplied with cable sleeve, hanger ring, cable clamp, wire guides, and gasket.



Cat. No. 800FC-3Z



Cat. No. 800FC-7Z

1-, 2-, and 3-Speed Operators §*

800FP - C $\frac{A}{a}$ $\frac{1}{b}$ $\frac{U243}{c}$



a

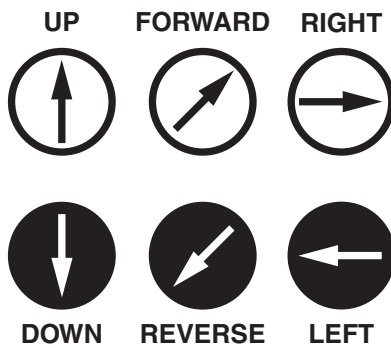
Operator Type	
Code	Description
A	1-speed single arrow
D	1-speed double arrow
B	2-speed
C	3-speed*

* Proper contact block assembly of these devices is required. Please see contact block information on page 104.

b

Cap Color	
Code	Description
1	White
2	Black

Arrow Direction Chart



c

Symbol	Code	Valid with Table a Selections:	Description†			
			Vertical Mounting		Horizontal Mounting	
			Black with White Arrow	White with Black Arrow	White with Black Arrow	Black with White Arrow
	U100	A, B, C	Blank	Blank	Blank	Blank
One-Speed Operators						
	U241	A	DOWN	UP	—	—
	U243		—	—	RIGHT	LEFT
	U244		REVERSE	FORWARD	—	—
	U246		—	—	FORWARD	REVERSE
	U700		LEFT	RIGHT	UP	DOWN
	U261	D	DOWN FAST	UP FAST	—	—
	U263		—	—	RIGHT FAST	LEFT FAST
	U264		REVERSE FAST	FORWARD FAST	—	—
	U266		—	—	FORWARD FAST	REVERSE FAST
	U260		LEFT FAST	RIGHT FAST	UP FAST	DOWN FAST
Two-Speed Operators						
	U271	B	2-speed DOWN	2-speed UP	—	—
	U273		—	—	2-speed RIGHT	2-speed LEFT
	U274		2-speed REVERSE	2-speed FORWARD	—	—
	U276		—	—	2-speed FORWARD	2-speed REVERSE
	U270		2-speed LEFT	2-speed RIGHT	2-speed UP	2-speed DOWN
Three-Speed Operators						
	U291	C	3-speed DOWN	3-speed UP	—	—
	U293		—	—	3-speed RIGHT	3-speed LEFT
	U294		3-speed REVERSE	3-speed FORWARD	—	—
	U296		—	—	3-speed FORWARD	3-speed REVERSE
	U290		3-speed LEFT	3-speed RIGHT	3-speed UP	3-speed DOWN

Note: Please see page 104 for proper latch and contact block configurations.

† Text (DOWN, UP, LEFT, etc.) indicates arrow direction. Text is **not** printed on operators.

§ Cat. No. 800F-ALP (standard latch) and Cat. No. 800FC-ALP (mechanical interlock latch) can be used with these operators.

* Booted style of operators for pendant stations.

Bul. 800F Two-Position Twist-to-Release and Twist-to-Release/Push-Pull Operators



Description	Operator Cat. No.	Guard Cat. No.
Twist-to-release — Red	800FP-MT44PX01	—
Twist-to-release — Red, illuminated	800FP-LMT44PN§RX01	—
Keyed twist-to-release — Red	800FP-MK44PX01	—
Twist-to-release or push-pull — Red, monolithic	800FD-MT44X01	—
Twist-to-release or push-pull — Red, monolithic with guard, monolithic	800FD-MT44X01	800F-AMEGY

§ Select **3** for 24V AC/DC or **5** for 120V AC.

Bul. 800F Push Button Operators and Caps — Extended & Non-Illuminated *



Cap Color	Description	Symbol Definition	Operator Cat. No.	Cap Cat. No.	Complete Operator Cat. No.	Composite Cat. No./ No Electrical Interlock*	Composite Cat. No./ Electrical Interlock*
Black	Blank	—	800FP-E2	—	—	800FP-E2PX10	800FP-E2PX11
	LEFT or DOWN	Single arrow 0°	800FP-E9	800F-AE208	800FP-E208	800FP-E208PX10	800FP-E208PX11
	REVERSE	Single arrow 45°		800F-AE2CU244	800FP-E2U244	800FP-E2U244PX10	800FP-E2U244PX11
	LEFT FAST or DOWN FAST	Double arrow 0°		800F-AE2CU261	800FP-E2U261	800FP-E2U261PX10	800FP-E2U261PX11
REVERSE FAST	Double arrow 45°	800F-AE2CU264		800FP-E2U264	800FP-E2U264PX10	800FP-E2U264PX11	
White	Blank	—	800FP-E1	—	—	800FP-E1PX10	800FP-E1PX11
	UP or RIGHT	Single arrow 0°	800FP-E9	800F-AE108	800FP-E108	800FP-E108PX10	800FP-E108PX11
	FORWARD	Single arrow 45°		800F-AE1CU244	800FP-E1U244	800FP-E1U244PX10	800FP-E1U244PX11
	UP FAST or RIGHT FAST	Double arrow 0°		800F-AE1CU261	800FP-E1U261	800FP-E1U261PX10	800FP-E1U261PX11
FORWARD FAST	Double arrow 45°	800F-AE1CU264		800FP-E1U264	800FP-E1U264PX10	800FP-E1U264PX11	
Green	Blank	—	800FP-E3	—	—	800FP-E3PX10	—
	START/ALARM	Start/Alarm	800FP-E9	800F-AE3CU222	800FP-E3U222	800FP-E3U222PX10	
START	Start symbol	800F-AE3CU909		800FP-E3U909	800FP-E3U909PX10		
Red	Blank	—	800FP-E4	—	—	800FP-E4PX10	
	STOP	Stop symbol	800FP-E9	800F-AE405	800FP-E405	800FP-E405PX10	
Yellow	Blank	—	800FP-E5	—	—	800FP-E5PX10	
	ALARM	Alarm	800FP-E9	800F-AE5CU223	800FP-E5U223	800FP-E5U223PX10	
Blue	Blank	—	800FP-E6	—	—	800FP-E6PX10	
	R	Reset symbol	800FP-E9	800F-AE611	800FP-E611	800FP-E611PX10	

* For 24V AC/DC units, add **V** for low voltage contact blocks. Example: **Cat. No. 800FP-E5PX10** becomes **Cat. No. 800FP-E5PX10V**.

* Mechanical interlock is not allowed.

Bul. 800F Push Button Operators — Extended & Illuminated *



Lens Color	Operator Cat. No.	Composite Cat. No.
Green	800FP-LE3	800FP-LE3PN§GX10
Red	800FP-LE4	800FP-LE4PN§RX10
Yellow	800FP-LE5	800FP-LE5PN§WX10
Blue	800FP-LE6	800FP-LE6PN§BX10
Clear	800FP-LE7	800FP-LE7PN§WX10

§ Select **3** for 24V AC/DC or **5** for 120V AC.

* Mechanical interlock is not allowed.

Bul. 800F Selector Switch Operators — Maintained & Non-Illuminated

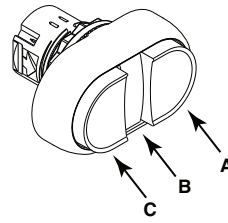
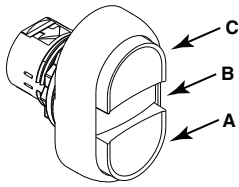


Number of Positions	Keyed	Operator Cat. No.	Composite Cat. No.*
	2	No	800FP-SM22
Yes		800FP-KM21	800FP-KM21PX11
3	No	800FP-SM32	800FP-SM32PX20
	Yes	800FP-KM34	800FP-KM34PX20

* For 24V AC/DC units, add **V** for low voltage contact blocks. Example: **Cat. No. 800FP-E5PX10** becomes **Cat. No. 800FP-E5PX10V**.

Bulletin 800FC
22.5 mm Configured Pendant Stations
 Product Selection

Bul. 800F Multi Operators and Caps— Extended ‡*



Vertical Mounting

Horizontal Mounting

Description	Symbol Definition	Illumination	Operator Cat. No.	Position A Cap Cat. No.	Position C Cap Cat. No.	Back of Panel Cat. No.*
Blank (black and white cap)	—	Non-Illuminated	800FP-U2X	800F-AEU2	800F-AEU1	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20

Vertical Mounting

UP (white)/DOWN (black)	Single arrow 0°	Non-Illuminated	800FP-U2X	800F-AECU2CU241	800F-AECU1CU241	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
RIGHT (white)/LEFT (black)	Single arrow 90°	Non-Illuminated	800FP-U2X	800F-AECU2CU700	800F-AECU1CU700	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
FORWARD (white)/REVERSE (black)	Single arrow 45°	Non-Illuminated	800FP-U2X	800F-AECU2CU244	800F-AECU1CU244	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
UP FAST (white)/DOWN FAST (black)	Double arrow 0°	Non-Illuminated	800FP-U2X	800F-AECU2CU261	800F-AECU1CU261	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
RIGHT FAST (white)/LEFT FAST (black)	Double arrow 90°	Non-Illuminated	800FP-U2X	800F-AECU2CU260	800F-AECU1CU260	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
FORWARD FAST (white)/REVERSE FAST (black)	Double arrow 45°	Non-Illuminated	800FP-U2X	800F-AECU2CU264	800F-AECU1CU264	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20

Horizontal Mounting

LEFT (black)/RIGHT (white)	Single arrow 90°	Non-Illuminated	800FP-U2X	800F-AECU1CU241	800F-AECU2CU241	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
DOWN (black)/UP (white)	Single arrow 0°	Non-Illuminated	800FP-U2X	800F-AECU1CU242	800F-AECU2CU242	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
REVERSE (black)/FORWARD (white)	Single arrow 45°	Non-Illuminated	800FP-U2X	800F-AECU1CU245	800F-AECU2CU245	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
LEFT FAST (black)/UP FAST (white)	Double arrow 90°	Non-Illuminated	800FP-U2X	800F-AECU1CU261	800F-AECU2CU261	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
DOWN FAST (black)/UP FAST (white)	Double arrow 0°	Non-Illuminated	800FP-U2X	800F-AECU1CU262	800F-AECU2CU262	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20
REVERSE FAST (black)/FORWARD FAST (white)	Double arrow 45°	Non-Illuminated	800FP-U2X	800F-AECU1CU265	800F-AECU2CU265	800F-PX20
		Illuminated	800FP-LU2X			800F-PN§WX20

§ Select **3** for 24V AC/DC or **5** for 120V AC.

* For 24V AC/DC units, add **V** for low voltage contact blocks. Example: **Cat. No. 800F-PX20** becomes **Cat. No. 800F-PX20V**

‡ Electrical interlock cannot be performed within the pendant enclosure.

* Mechanical interlock is not allowed.

22.5 mm Configured Pendant Stations

Product Selection

Bul. 800F Pilot Lights — Monolithic



Lens Color	Lamp Voltage	Cat. No.
Green	24V AC/DC	800FD-P3N3
	120V AC	800FD-P3N5
Red	24V AC/DC	800FD-P4N3
	120V AC	800FD-P4N5
Yellow	24V AC/DC	800FD-P5N3
	120V AC	800FD-P5N5
Blue	24V AC/DC	800FD-P6N3
	120V AC	800FD-P6N5
Clear	24V AC/DC	800FD-P7N3
	120V AC	800FD-P7N5

Bul. 800F Potentiometer Operators*



Resistive Element (Ω)	Cat. No.
150	800FP-POT1
500	800FP-POT2
1000	800FP-POT3
2500	800FP-POT4
5000	800FP-POT5
10 000	800FP-POT6

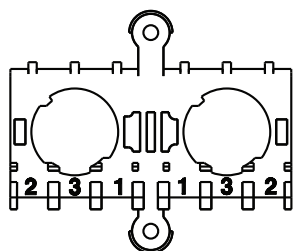
* Only available in Position 1 for a 3-hole enclosure, Positions 1 and/or 5 for a 5-hole enclosure, Positions 1 and/or 7 for a 7-hole enclosure, and positions 1 and/or 9 for a 9-hole enclosure. No latches are required.

Bul. 800F Hole Plug

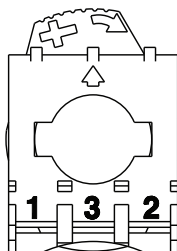


Color	Cat. No.
Black plastic	800F-N2

1-, 2-, and 3-Speed Contact Block Assemblies



Cat. No. **800FC-ALP**



Cat. No. **800F-ALP**

Operator Type	Interlock Type	Composite Cat. No.	Separate Catalog Numbers			
			Latch Cat. No.	Contact Block Location 1 Cat. No.	Contact Block Location 2 Cat. No.	Contact Block Location 3 Cat. No.
1-speed	No interlock	800F-PX10E	800F-ALP	—	—	800F-X10E
	Electrical interlock	800F-PX11C	800F-ALP	800F-X01B		
	Mechanical interlock§	800F-LX20C	800FC-ALP	—		
2-speed	Electrical & mechanical interlock§	800F-LX22C	800FC-ALP	800F-X01B	800F-X10N (Speed 2)	800F-X10E (Speed 1)
	No interlock	800F-PX20C	800F-ALP	—		
	Electrical interlock	800F-PX21C	800F-ALP	800F-X01B		
	Mechanical interlock§	800F-LX40C	800FC-ALP	—		
3-speed	Electrical & mechanical interlock§	800F-LX42C	800FC-ALP	800F-X01B	800F-X10E (Speed 2)	800F-X10M (Speed 1)‡
	No interlock	800F-PX30C	800F-ALP	800F-X10N		
	Mechanical interlock§	800F-LX60C	800FC-ALP	800F-X10N (Speed 3)		

⊛ Contact blocks come preassembled onto latch.

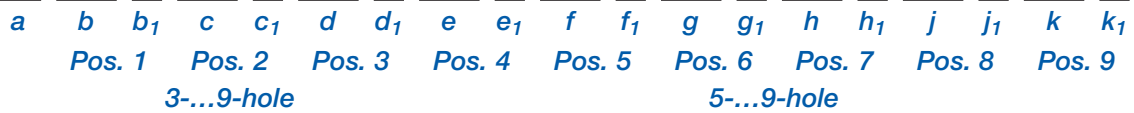
‡ For proper operation, **Cat. No. 800F-X10M** must be mounted in position 3 of either the mechanical or standard latch.

§ When ordering separate components, two pieces of each contact block must be ordered, one for each operator.

Bulletin 800FC
22.5 mm Configured Pendant Stations
 Catalog Number Explanation

Catalog Number Explanation
 Configured Pendant Stations

800FC –



Note: A code from Tables *b...k* and *b₁...k₁* must be specified for each operator to create a valid cat. no.

a

Enclosure Code					
Voltage	Legend Plate	3-Hole	5-Hole	7-Hole	9-Hole
		Code	Code	Code	Code
24V AC/DC	No	2	4	6	8
120V AC		3	5	7	9
24V AC/DC	Yes	A	C	E	G
120V AC		B	D	F	H

b...k

Operator Type		
Single Speed Operators for use with Mechanical Interlock†+‡11		
Code	Description	Legend Plate Text (When Selected)
A2	Black operator (no text or symbol)	Blank
AB	Black operator with arrow (reverse — down/left)	O/H CRANE, REVERSE
AD	Black operator with arrow (down)	LIFT, DOWN
AL	Black operator with arrow (left)	HOIST, LEFT
A1	White operator (no text or symbol)	Blank
AF	White operator with arrow (forward — up/right)	O/H CRANE, FORWARD
AR	White operator with arrow (right)	HOIST, RIGHT
AU	White operator with arrow (up)	LIFT, UP
Fast Single Speed Operators for use with Mechanical Interlock†+‡11		
Code	Description	Legend Plate Text (When Selected)
DB	Black operator with double arrow (reverse fast — down/left)	O/H CRANE, REVERSE, FAST
DD	Black operator with double arrow (down fast)	LIFT, DOWN FAST
DL	Black operator with double arrow (left fast)	O/H CRANE, LEFT FAST
DF	White operator with double arrow (forward fast — up/right)	O/H CRANE, FORWARD, FAST
DR	White operator with double arrow (right fast)	O/H CRANE, RIGHT FAST
DU	White operator with double arrow (up fast)	LIFT, UP FAST
Two-Speed Operators for use with Mechanical Interlock†+‡11		
Code	Description	Legend Plate Text (When Selected)
B2	Black operator (no text or symbol)	Blank
BB	Black operator with arrow (reverse — down/left)	1-2 SPEED, O/H CRANE, REVERSE
BD	Black operator with arrow (down)	1-2 SPEED, LIFT, DOWN
BL	Black operator with arrow (left)	1-2 SPEED, HOIST, LEFT
B1	White operator (no text or symbol)	Blank
BF	White operator with arrow (forward — up/right)	1-2 SPEED, O/H CRANE, FORWARD
BR	White operator with arrow (right)	1-2 SPEED, HOIST, RIGHT
BU	White operator with arrow (up)	1-2 SPEED, LIFT, UP
Three-Speed Operators for use with Mechanical Interlock†‡\$+‡11		
Code	Description	Legend Plate Text (When Selected)
C2	Black operator (no text or symbol)	Blank
CB	Black operator with arrow (reverse — down/left)	1-2-3 SPEED, O/H CRANE, REVERSE
CD	Black operator with arrow (down)	1-2-3 SPEED, LIFT, DOWN
CL	Black operator with arrow (left)	1-2-3 SPEED, HOIST, LEFT
C1	White operator (no text or symbol)	Blank
CF	White operator with arrow (forward — up/right)	1-2-3 SPEED, O/H CRANE, FORWARD
CR	White operator with arrow (right)	1-2-3 SPEED, HOIST, RIGHT
CU	White operator with arrow (up)	1-2-3 SPEED, LIFT, UP

* Only available in position 1 of a 3-hole enclosure and in positions 1 & 2 of a 5-...9-hole enclosure.

‡ Monolithic style device provided.

† For a 3-hole enclosure, when a mechanical interlock (c1 & d1 = M or B) is selected with a 1-...3-speed operator, the black operator will be located in position 2 of the enclosure and the opposite white operator will be placed in position 3 of the enclosure (Example: ABMAFM or BDMBUM). For a 5-...9-hole enclosure, when a mechanical interlock (b1...k1 = M or B) is selected with a 1-...3-speed operator, the white operator will be located in position X of the mechanical interlock and the opposite black operator will be placed in position X+1 of the mechanical interlock (Example: AFMABM or BUMBDM).

§ Interlock and/or rubber boot selection = N (no interlock, no additional boots) is **not** allowed.

‡ Interlock and/or rubber boot selection = E (electrical interlock, no additional boots) is **not** allowed.

‡ Interlock and/or rubber boot selection = M (mechanical interlock) is **not** allowed.

‡ Interlock and/or rubber boot selection = B (electrical and mechanical interlock) is **not** allowed.

‡ Interlock and/or rubber boot selection = R (no interlock, additional rubber boot) is **not** allowed.

‡ Interlock and/or rubber boot selection = S (electrical interlock, additional rubber boot) is **not** allowed.

‡ Only available in position 1 for a 3-hole enclosure, positions 1 and/or 5 for a 5-hole enclosure, positions 1 and/or 7 for a 7-hole enclosure, and positions 1 and/or 9 for a 9-hole enclosure.

11 For proper installation, a trim washer or Cat. No. 800F-36_ legend plate must be installed with this operator.

b₁...k₁

Interlock and/or Rubber Boot	
Code	Description
N	No interlock, no additional boots
E	Electrical interlock, no additional boots
M	Mechanical interlock, boots standard†
B	Electrical and mechanical interlock, boots standard†
R	No interlock, additional rubber boot
S	Electrical interlock, additional rubber boot



22.5 mm Configured Pendant Stations

Catalog Number Explanation

b...k, continued

Operator Type		
Emergency Stop Operators*➤➤*➤➤		
Code	Description	Legend Plate Text (When Selected)
MT	Red operator — twist-to-release	Not provided
ME	Illuminated red operator — twist-to-release	
MK	Red operator — keyed twist-to-release	
MM	Red operator — twist-to-release/push-pull*➤	
MG	Red operator with guard — twist-to-release/push-pull*➤	
Standard Extended Push Buttons — Non-Illuminated>➤		
Code	Description	Legend Plate Text (When Selected)
E2	Black operator (no text or symbol)	Blank
ED	Black operator with arrow (down)	LIFT, DOWN
EL	Black operator with arrow (left)	HOIST, LEFT
EB	Black operator with arrow (reverse — down/left)	O/H CRANE, REVERSE
FD	Black operator with double arrow (down fast)	LIFT, DOWN FAST
FL	Black operator with double arrow (left fast)	O/H CRANE, LEFT FAST
FB	Black operator with double arrow (reverse fast — down/left)	O/H CRANE, REVERSE, FAST
E1	White operator (no text or symbol)	Blank
EU	White operator with arrow (up)	LIFT, UP
ER	White operator with arrow (right)	HOIST, RIGHT
EF	White operator with arrow (forward — up/right)	O/H CRANE, FORWARD
FU	White operator with double arrow (up fast)	LIFT, UP FAST
FR	White operator with double arrow (right fast)	O/H CRANE, RIGHT FAST
FF	White operator with double arrow (forward fast — up/right)	O/H CRANE, FORWARD, FAST
E3	Green operator (no text or symbol)*➤	Blank
EQ	Green operator with Start/Alarm symbol*➤	START, ALARM
EN	Green operator with Start symbol*➤	START
E4	Red operator (no text or symbol)*➤	Blank
ES	Red operator with Stop symbol*➤	STOP
E5	Yellow operator (no text or symbol)*➤	Blank
EA	Yellow operator with Alarm symbol*➤	ALARM
E6	Blue operator (no text or symbol)*➤	Blank
R6	Blue operator with R*➤	RESET
Standard Extended Push Buttons — Illuminated*➤>➤		
Code	Description	Legend Plate Text (When Selected)
L3	Green operator (no text or symbol)	Blank
L4	Red operator (no text or symbol)	Blank
L5	Yellow operator (no text or symbol)	Blank
L6	Blue operator (no text or symbol)	Blank
L7	Clear operator (no text or symbol)	Blank
Selector Switches*➤>➤		
Code	Description	Legend Plate Text (When Selected)
SH	2-position	Standard-maintained
KH		Keyed-maintained
SJ	3-position	Standard-maintained
KJ		Keyed-maintained

Note: Footnote explanations on previous page.

b...k, continued

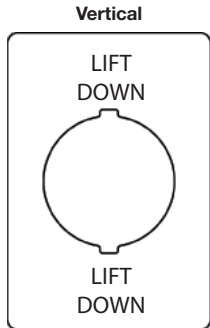
Operator Type			
2- Function Multi-Operator Push Buttons*➤>➤			
Code	Description	Legend Plate Text (When Selected)	
VV	Black/white operator with arrow (down & up)	Not provided	
VW	Black/white operator with arrow (left & right)		
VX	Black/white operator with arrow (reverse & forward)		
WV	Black/white operator, illuminated, with arrow (down & up)		
WW	Black/white operator, illuminated, with arrow (left & right)		
WX	Black/white operator, illuminated, with arrow (reverse & forward)		
XV	Black/white operator with double arrows (down fast & up fast)		
XW	Black/white operator with double arrows (left fast & right fast)		
XX	Black/white operator with double arrows (reverse fast & forward fast)		
YV	Black/white operator, illuminated, with double arrows (down fast & up fast)		
YW	Black/white operator, illuminated, with double arrows (left fast & right fast)		
YX	Black/white operator, illuminated, with double arrows (reverse fast & forward fast)		
Pilot Lights*➤>➤			
Code	Description		Legend Plate Text (When Selected)
P0	Amber LED		Blank
P3	Green LED	Blank	
P4	Red LED	Blank	
P5	Yellow LED	Blank	
P6	Blue LED	Blank	
P7	Clear LED	Blank	
Potentiometers*➤>➤			
Code	Description	Legend Plate Text (When Selected)	
1P	Black operator — 150 Ω	Blank	
2P	Black operator — 500 Ω	Blank	
3P	Black operator — 1000 Ω	Blank	
4P	Black operator — 2500 Ω	Blank	
5P	Black operator — 5000 Ω	Blank	
6P	Black operator — 10 000 Ω	Blank	
Hole Plug*➤>➤			
Code	Description	Legend Plate Text (When Selected)	
N2	Black hole plug	Blank	

b₁...k₁

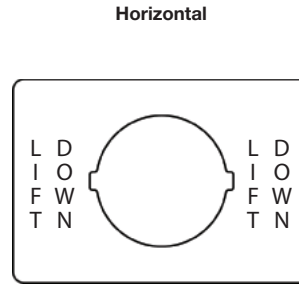
Interlock and/or Rubber Boot	
Code	Description
N	No interlock, no additional boots
E	Electrical interlock, no additional boots
M	Mechanical interlock, boots standard‡
B	Electrical and mechanical interlock, boots standard‡
R	No interlock, additional rubber boot
S	Electrical interlock, additional rubber boot

Bulletin 800FC
22.5 mm Configured Pendant Stations
 Accessories

Accessories
 Engraved Legend Plates



Cat. No. 800F-36VE416



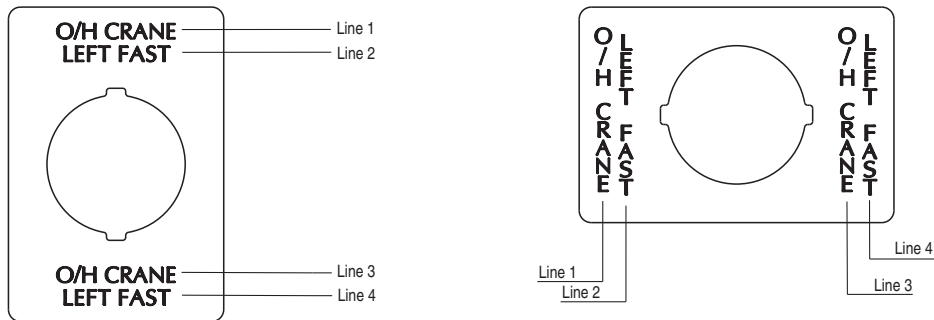
Cat. No. 800F-36HE416

Description	Cat. No.	Description	Cat. No.
Blank	800F-36BE100	1-2-3 SPEED, O/H CRANE, FORWARD	800F-36SE411
O-I	800F-36SU231	1-2-3 SPEED, O/H CRANE, REVERSE	800F-36SE412
I-O-II	800F-36SU234	ALARM	800F-36SE413
RESET	800F-36SE186	HOIST, LEFT	800F-36SE414
START	800F-36SE208	HOIST, RIGHT	800F-36SE415
STOP	800F-36SE212	LIFT, DOWN	800F-36SE416
1-2 SPEED, HOIST, LEFT	800F-36SE401	LIFT, DOWN FAST	800F-36SE417
1-2 SPEED, HOIST, RIGHT	800F-36SE402	LIFT, UP	800F-36SE418
1-2 SPEED, LIFT, DOWN	800F-36SE403	LIFT, UP FAST	800F-36SE419
1-2 SPEED, LIFT, UP	800F-36SE404	O/H CRANE, FORWARD	800F-36SE420
1-2 SPEED, O/H CRANE, FORWARD	800F-36SE405	O/H CRANE, FORWARD, FAST	800F-36SE421
1-2 SPEED, O/H CRANE, REVERSE	800F-36SE406	O/H CRANE, LEFT FAST	800F-36SE422
1-2-3 SPEED, HOIST, LEFT	800F-36SE407	O/H CRANE, REVERSE	800F-36SE423
1-2-3 SPEED, HOIST, RIGHT	800F-36SE408	O/H CRANE, REVERSE, FAST	800F-36SE424
1-2-3 SPEED, LIFT, DOWN	800F-36SE409	O/H CRANE, RIGHT FAST	800F-36SE425
1-2-3 SPEED, LIFT, UP	800F-36SE410	START, ALARM	800F-36SE426
		Custom text	800F-36SE100*

§ For vertically mounted operators, add a **V** to the cat. no. Example: **Cat. No. 800F-36SE186** becomes **Cat. No. 800F-36VE186**.
 For horizontally mounted operators, add an **H** to the cat. no. Example: **Cat. No. 800F-36SE186** becomes **Cat. No. 800F-36HE186**.

* Font code (**K**, **S**, **L**) must be selected from the following table.

⊛ Please fill in the custom text fax sheet found on page 112 to ensure accuracy of legend plate engraving.



Font Size	Vertical Mounting (V)		Horizontal Mounting (H)	
	Max. Characters Per Line	Max. No. of Lines	Max. Characters Per Line	Max. No. of Lines
K (small)	16	4	9	4
S (standard)	14	4	8	4
L (large)	10	2	7	2

	Description	Pkg. Quantity	Cat. No.
	Plastic mounting latch	10	800F-ALP
	Mechanical interlock latch	1	* 800FC-ALP
	Replacement wire guide †	10	800FC-AWG
	Replacement trim washer	10	800F-ATW1
	Insulated side jumper	50	1492-SJ5A-24
			1492-SJ5A-10
	Hole plug	1	800F-N2
	Contact block	10	Description
			Type
			N.O.
			N.C.
			N.O. low voltage — QuadCONNECT™
			N.C. low voltage — QuadCONNECT™
			N.C.E.B.
			NOEM* ‡
NOEM†			
NOEEM➤	‡	800F-X10M	
	Cable sleeve	1	3-hole (M20 x 1.5)
			5...9-hole (M32 x 1.5)
	Protective boot	10	Extended push button
			2-position multi-operator
	Narrow plastic guard	1	Yellow
			800F-AMEGY
	Integrated LED module	10	24V AC/DC
			120V AC
			§ 800F-N3x
			§ 800F-N5x

- * Only for use with 1-, 2-, and 3-speed operators.
- * First contact closure of 1- and 2-speed operators.
- ‡ Second contact closure of 2-speed operators and third contact closure of 3-speed operators.
- First contact closure of 3-speed operators.
- ‡ For proper operation, **Cat. No. 800F-X10M** must be mounted in position 3 of the mechanical or standard latch.
- ‡ Not for use with 1-, 2-, and 3-speed operators.
- § To complete the cat. no., replace the x with one of the following letters for the desired color: **Y** = Amber, **R** = Red, **G** = Green, **B** = Blue, **W** = White.
- † Wire guides are provided with enclosures.

Bulletin 800FC

22.5 mm Configured Pendant Stations

Specifications

Specifications*

Front-of-Panel (Operators)

Mechanical Ratings		
Description	Plastic (Bulletin 800FP)	
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*	IP66 (Type 4/4X/13)	
Mechanical durability per EN 60947-5-1 (Annex C)	10 000 000 Cycles	Momentary push buttons
	1 000 000 Cycles	Multi-function, selector switch, key selector switch
	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	
Operating torque (typical application with one contact block)	Selector switch = 0.25 N•m (2.2 lb•in)	
Mounting torque	1.7 N•m (15 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.

‡ Plastic keyed operators are IP66, Type 4/13; not Type 4X.

‡ 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) - fully populated 9-hole pendant enclosure 45 °C (113 °F) with 75 °C wire.

Note: Use UL Listed type S or SJ cords, with a smooth outer jacket rated for wet locations use (marked W) and oil resistant outer covering (marked O) such as SOW or SJOW with copper wire, rated 75 °C min., 18...12 AWG, with an overall OD of 7.5...15 mm for the small cable sleeve (**Cat. No. 800FC-AS3**) and 9...22.5 mm for the large cable sleeve (**Cat. No. 800FC-AS5**).

Material Listing

Component	For Use with	Material Used
Panel gasket	All operators	Nitrile, TPE
Diaphragm seal	Illuminated push button, non-illuminated push button	Automotive industry acceptable silicone
K-seal	Selector switch, key selector switch, push/twist-to-release E-stop, key E-stop	Nitrile
Diaphragm retainer, return spring I	Illuminated push button, non-illuminated push button	Stainless steel
Return spring II	Selector switch, key selector switch, alternate action, push/twist-to-release E-stop, key E-stop	Zinc-coated music wire
Button cap	Non-illuminated push button, push/twist-to-release, E-stop, key E-stop, multi-function	PBT/polycarbonate blend
2-color molded button cap	Non-illuminated push button	PBT/polycarbonate blend
Lens	Multi-function	Acetal
Lens, knob	Illuminated push button	Polyamide
Knob	Non-illuminated selector switch	Glass-filled polyamide
Plastic bezel/bushing I	Non-illuminated push button, illuminated push button, selector switch, key selector switch, push/twist-to-release E-stop, key E-stop, multi-function	Glass-filled polyamide
Plastic bezel/bushing II	Pilot light	Glass-filled PBT
Diffuser	Illuminated push button, pilot light	Polycarbonate
Plastic mounting ring	All plastic operators	Glass-filled polyamide
Plastic latch	—	Glass-filled polyamide
Mechanical interlock latch	—	Glass-filled polyamide
Plastic enclosure	—	PBT/polycarbonate blend
Terminal screws	LED module, contact blocks	Zinc-plated steel with chromate
Terminals	LED module, contact blocks	Brass with silver-nickel contacts
Housing	LED module	Glass-filled polyamide
Low-voltage terminals	Contact blocks	Gold-plated silver-nickel contacts
Low-voltage spanner	Contact blocks	Gold-plated silver-nickel contacts
Spanner	Contact blocks	Brass with silver-nickel contacts
Boot	Illuminated push button, non-illuminated push button, multi-function illuminated and non-illuminated	Automotive industry acceptable silicone

22.5 mm Configured Pendant Stations

Specifications

Back-of-Panel Components*

Electrical Ratings			
Standard contact block ratings		A600, Q600 600V AC AC 15, DC 13 to IEC/EN 60947-5-1 and UL 508, 17V, 5 mA min.	
Low voltage contact block ratings*		5V, 1 mA DC min. C300, R150, AC 15, DC 13 to EN 60947-5-1 and UL 508	
Nominal Voltage		Range	Current Draw
LED Module Ratings			Frequency
	24V AC	10...29V AC	31 mA
	24V DC	10...30V DC	24 mA
	120V AC	70...132V AC	25 mA
	240V AC	180...264V AC	22 mA
Thermal current		10 A max. enclosed (40 °C ambient) to UL508, EN 60947-5-1	
Insulation voltage (U _i)		Screw terminal = 690V, spring-clamp = 300V	
Wire capacity (screw terminal)‡		#18...12 AWG (0.75...2.5 mm ²) Max. (2) #14 AWG or (1) #12 AWG	
Wire capacity (spring-clamp terminal)		#18...14 AWG (0.75...1.5 mm ²) One per spring clamp, two spring clamps per terminal	
Recommended tightening torque on screw terminals		0.7...0.9 N•m (6...8 lb•in)	
Dielectric strength (minimum)		2500V for one minute	
External short circuit protection		10 A type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class C to UL 248-4)	
		6 A type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class C to UL 248-4)	
Electrical shock protection		Finger-safe conforming to IP2X	
Mechanical Ratings			
Vibration (assembled to panel)		Tested at 10...2000 Hz, 1.52 mm displacement (peak-to-peak) max./10 G max. 6 hr	
Shock		Tested at 1/2 cycle sine wave for 11 ms and no damage at 100 G max.	
Contact durability per EN 60947-5-1 (Annex C)		10 000 000 cycles	
N.O.		Slow double make and break	
N.C.		Slow double make and break — positive opening	
N.O.E.M.		↻	
N.C.L.B.		Double break / double make, early make	
N.C.E.B.		Double break / double make, late break — positive opening	
N.O.E.E.M.		↻	
N.O.L.M.		Double break / double make, early break — positive opening	
		↻	
		Double break / double make, early early make	
		↻	
		Double break / double make, late make	
Standard push button travel to change electrical state		N.C. and N.O.E.M.	1.5 mm (0.060 in.)
		N.O. and N.C.L.B.	2.5 mm (0.1 in.)
Multi-speed push button travel to change electrical state		N.O.E.E.M.	3 mm (0.12 in.)
		N.C.E.B.	4 mm (0.16 in.)
		N.O.L.M.	7 mm (0.28 in.)
Operating forces (typical)		Single-circuit contact block	3.4 N
		Dual-circuit contact block	5...6.5 N
Illumination			
LED Dominant Wavelength		Green	525 nm
		Red	629 nm
		Yellow	590 nm
		Blue	470 nm
		White	—
LED Luminous Intensity		Green	780 mcd
		Red	780 mcd
		Yellow	600 mcd
		Blue	168 mcd
		White	360 mcd
Materials			
Springs		Stainless steel and zinc coated music wire	
Electrical contacts		Silver-nickel	
		Low voltage	
		Gold-plated over silver	
Terminals		Brass	
		Screw	
		Spring-clamp	
		Silver-plated brass	

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

* Low voltage contacts are recommended for applications below 17V, 5 mA.

‡ Wires less than #18 AWG (0.75 mm²) may not hold in terminal securely.



Allen-Bradley

www.ab.com/catalogs Preferred availability cat. nos. are **bold**.

Publication A117-CA001A-EN-P

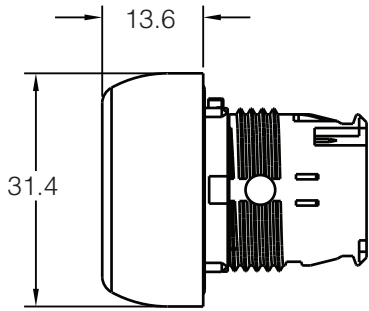
10-137

22.5 mm Configured Pendant Stations

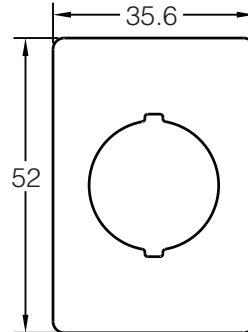
Approximate Dimensions

Approximate Dimensions *

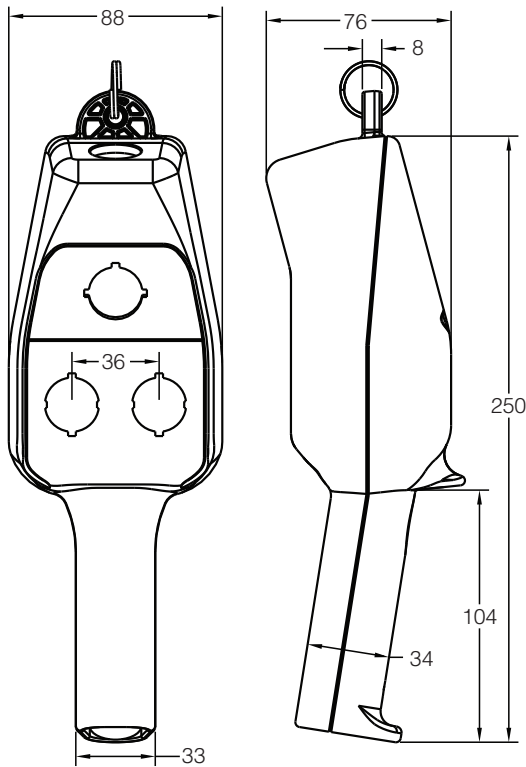
Bul. 800FC 1-, 2-, and 3-Speed Operator



Bul. 800FC Legend Plate

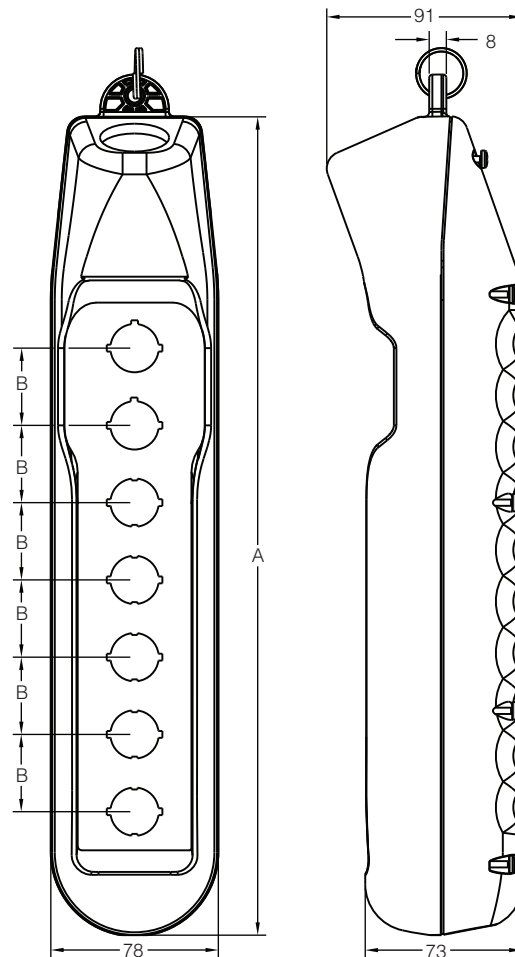


Bul. 800FC Pendant Station (3-Hole)



Bul. 800FC Pendant Station (5-, 7-, and 9-Hole)

Cat. No.	No. of Holes	A	B
800FC-4/5/C/D	5	309	36
800FC-6/7/E/F	7	381	36
800FC-8/9/G/H	9	453	36



* For Bul. 800F operator dimensions, see page 10-120.

22.5 mm Monolithic Push Buttons

Product Overview/Selection



Bulletin 800FD Monolithic Push Buttons

With a single catalog number, you can now order a fully assembled product for easy stocking and installation. Designed to meet worldwide standards, the Bul. 800FD monolithic line includes E-stops and pilot lights with either LED or incandescent options.

- Ease of installation
- Low back-of-panel profile (45.7 mm)
- Aesthetic design complements the Bul. 800F modular line
- Anti-rotation tab provides accurate alignment and can be easily removed for use in panels without notches
- Lowest cost of installation
- Made of industrial-grade thermoplastic for superior chemical resistance
- Designed to meet worldwide standards
- Compatible with Bul. 800F accessories and enclosures
- Ring lug capability

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 Selector Switches..... 10-142
 Mushroom/E-Stops... 10-142
 Accessories..... 10-143
 Specifications..... 10-144
 Approximate Dimensions..... 10-145

Product Selection

Momentary Push Button Operators, Non-Illuminated



Operator Type	Cap Color	Pkg. Quantity	Contact Configuration		
			1 N.O. Cat. No.	1 N.C. Cat. No.	1 N.O. & 1 N.C. Cat. No.
Flush	Black	1	800FD-F2X10	800FD-F2X01	800FD-F2X11
	Green		800FD-F3X10	800FD-F3X01	800FD-F3X11
	Red		800FD-F4X10	800FD-F4X01	800FD-F4X11

800FD – **F** **3** **01** **X** **11**
a *b* *c* *d* *e*

a

Operator Type	
Code	Description
F	Flush
E	Extended

b

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

c

Legend Text**	
Code	Text
—	No text (blank)
01	START
02	STOP
05	O
06	I
08	→
09	FORWARD
10	REVERSE
11	R

* White and yellow caps have black text. All other color caps have white text.
 ** Valid color cap/legend text combinations are as follows:

Color	Text	
	Flush Caps	Extended Caps
White	START, I, →, FORWARD, REVERSE, R	→, R
Black	→, FORWARD, REVERSE, R	STOP, O, →, R ‡
Green	START, I, →, FORWARD, REVERSE	→
Red	→, FORWARD, REVERSE	STOP, O, → ‡
Yellow	→, FORWARD, REVERSE	→
Blue	→, FORWARD, REVERSE, R	→, R

‡ "STOP" or "O" color cap/legend text are not available for "10" or "20" contact modules.

d

Termination Style	
Code	Description
X	Standard screw
R	Ring lug

e

Contact Module		
Code	Number of N.O.	Number of N.C.
01	0	1
10	1	0
11	1	1
02	0	2
20	2	0



Pilot Light Devices — LED



Lens & LED Color	Pkg. Quantity	Voltage		
		24V AC/DC Cat. No.	120V AC Cat. No.	240V AC Cat. No.
Green	1	800FD-P3N3	800FD-P3N5	800FD-P3N7
Red		800FD-P4N3	800FD-P4N5	800FD-P4N7
Yellow		800FD-P5N3	800FD-P5N5	800FD-P5N7

800FD - P 3 N 7
 a b c

a

Lens Cap	
Code	Color
0	Amber
3	Green
4	Red
5	Yellow
6	Blue
7	Clear

b

Voltage	
Code	Type
3	24V AC/DC
5	120V AC
7	240V AC

c

Termination Style	
Code	Description
Blank	Standard screw
R	Ring lug

Pilot Light Devices — Incandescent

Lens & LED Color	Pkg. Quantity	Voltage	
		24V AC/DC Cat. No.	120V AC Cat. No.
Green	1	800FD-P3D3	800FD-P3D5
Red		800FD-P4D3	800FD-P4D5
Yellow		800FD-P5D3	800FD-P5D5

800FD - P 3 D 5
 a b c

a

Lens Cap	
Code	Color
0	Amber
3	Green
4	Red
5	Yellow
6	Blue
7	Clear
9	No lens*

b

Voltage	
Code	Type
0	No Bulb*
1	6V AC/DC
2	12V AC/DC
3	24V AC/DC
4	48V AC/DC
5	120V AC/DC

c

Termination Style	
Code	Description
Blank	Standard screw
R	Ring lug

* Only valid with "no bulb" option.
 * Only valid with "no lens" option.