



### Bulletin 800FC — Configured Pendant Stations

- 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

### Bulletin 800FP — 1-, 2-, and 3-Speed Operators

- IP65/IP66, NEMA Type 4/4X/13
- Engineering grade thermoplastics
- Chemical-resistant for harsh environments
- Booted operator

### Mechanical Interlock

- 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

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### Product Certifications

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	✓

### Operator Mounting - Vertical vs. Horizontal Definition

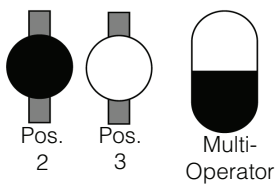
Due to the design of the enclosures, operators are mounted in both a vertical and horizontal orientation. The easiest way to visualize the operator orientation is by observing the contact block direction attached to the operators. If the contact blocks are mounted vertically the operator is mounted vertically 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

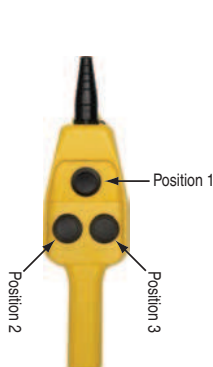
The 1-, 2-, and 3-speed operators can be mounted with either our standard **Cat. No. 800F-ALP** latch or a mechanical interlocking latch (**Cat. No. 800FC-ALP**). For the 3-hole enclosure, the mechanical interlock can only be located in positions 2 & 3, with the black operator being located in position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

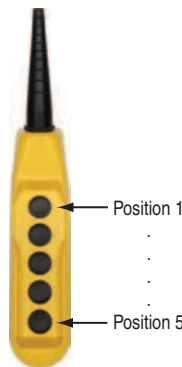
#### Vertical Mount Operators



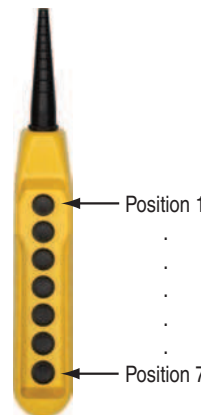
#### Horizontal Mount Operators



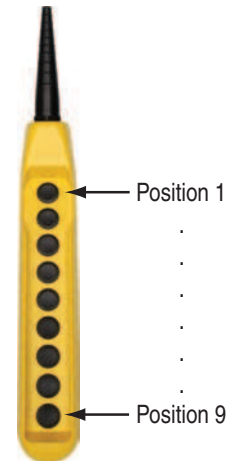
3-Hole Enclosure\*



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**

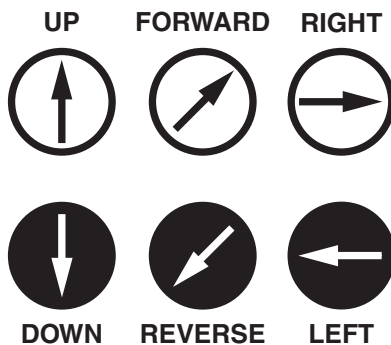
Operator Type	
Code	Description
A	1-speed single arrow
D	1-speed double arrow
B	2-speed
C	3-speed*

\* 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	<b>800FP-MT44PX01</b>	—
Twist-to-release — Red, illuminated	800FP-LMT44PN§RX01	—
Keyed twist-to-release — Red	800FP-MK44PX01	—
Twist-to-release or push-pull — Red, monolithic	<b>800FD-MT44X01</b>	—
Twist-to-release or push-pull — Red, monolithic with guard, monolithic	<b>800FD-MT44X01</b>	<b>800F-AMEGY</b>

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

## Bul. 800F Push Button Operators and Caps — Extended &amp; 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	—	<b>800FP-E2</b>	—	—	800FP-E2PX10	800FP-E2PX11
	LEFT or DOWN	Single arrow 0°	<b>800FP-E9</b>	<b>800F-AE208</b>	800FP-E208	800FP-E208PX10	<b>800FP-E208PX11</b>
	REVERSE	Single arrow 45°		<b>800F-AE2CU244</b>	<b>800FP-E2U244</b>	800FP-E2U244PX10	800FP-E2U244PX11
	LEFT FAST or DOWN FAST	Double arrow 0°		<b>800F-AE2CU261</b>	800FP-E2U261	800FP-E2U261PX10	800FP-E2U261PX11
REVERSE FAST	Double arrow 45°	800F-AE2CU264	800FP-E2U264	800FP-E2U264PX10	800FP-E2U264PX11		
White	Blank	—	<b>800FP-E1</b>	—	—	800FP-E1PX10	800FP-E1PX11
	UP or RIGHT	Single arrow 0°	<b>800FP-E9</b>	<b>800F-AE108</b>	800FP-E108	800FP-E108PX10	<b>800FP-E108PX11</b>
	FORWARD	Single arrow 45°		<b>800F-AE1CU244</b>	<b>800FP-E1U244</b>	800FP-E1U244PX10	800FP-E1U244PX11
	UP FAST or RIGHT FAST	Double arrow 0°		<b>800F-AE1CU261</b>	800FP-E1U261	800FP-E1U261PX10	800FP-E1U261PX11
FORWARD FAST	Double arrow 45°	800F-AE1CU264	800FP-E1U264	800FP-E1U264PX10	800FP-E1U264PX11		
Green	Blank	—	<b>800FP-E3</b>	—	—	800FP-E3PX10	—
	START/ALARM	Start/Alarm	<b>800FP-E9</b>	<b>800F-AE3CU222</b>	800FP-E3U222	800FP-E3U222PX10	
START	Start symbol	800F-AE3CU909		<b>800FP-E3U909</b>	800FP-E3U909PX10		
Red	Blank	—	<b>800FP-E4</b>	—	—	800FP-E4PX10	
	STOP	Stop symbol	<b>800FP-E9</b>	<b>800F-AE405</b>	<b>800FP-E405</b>	800FP-E405PX10	
Yellow	Blank	—	<b>800FP-E5</b>	—	—	800FP-E5PX10	
	ALARM	Alarm	<b>800FP-E9</b>	800F-AE5CU223	800FP-E5U223	800FP-E5U223PX10	
Blue	Blank	—	<b>800FP-E6</b>	—	—	<b>800FP-E6PX10</b>	
	R	Reset symbol	<b>800FP-E9</b>	<b>800F-AE611</b>	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 &amp; Illuminated \*



Lens Color	Operator Cat. No.	Composite Cat. No.
Green	<b>800FP-LE3</b>	800FP-LE3PN§GX10
Red	<b>800FP-LE4</b>	800FP-LE4PN§RX10
Yellow	<b>800FP-LE5</b>	800FP-LE5PN§WX10
Blue	<b>800FP-LE6</b>	800FP-LE6PN§BX10
Clear	<b>800FP-LE7</b>	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 &amp; Non-Illuminated

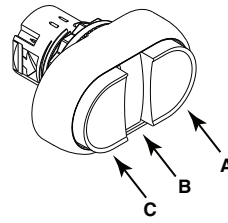
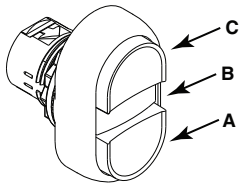


Number of Positions	Keyed	Operator Cat. No.	Composite Cat. No.*
	2	No	<b>800FP-SM22</b>
Yes		<b>800FP-KM21</b>	800FP-KM21PX11
3	No	<b>800FP-SM32</b>	<b>800FP-SM32PX20</b>
	Yes	<b>800FP-KM34</b>	800FP-KM34PX20

\* 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	<b>800FP-U2X</b>	<b>800F-AEU2</b>	<b>800F-AEU1</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
<b>Vertical Mounting</b>						
UP (white)/DOWN (black)	Single arrow 0°	Non-Illuminated	<b>800FP-U2X</b>	<b>800F-AECU2CU241</b>	<b>800F-AECU1CU241</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
RIGHT (white)/LEFT (black)	Single arrow 90°	Non-Illuminated	<b>800FP-U2X</b>	<b>800F-AECU2CU700</b>	<b>800F-AECU1CU700</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
FORWARD (white)/REVERSE (black)	Single arrow 45°	Non-Illuminated	<b>800FP-U2X</b>	800F-AECU2CU244	<b>800F-AECU1CU244</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
UP FAST (white)/DOWN FAST (black)	Double arrow 0°	Non-Illuminated	<b>800FP-U2X</b>	<b>800F-AECU2CU261</b>	<b>800F-AECU1CU261</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
RIGHT FAST (white)/LEFT FAST (black)	Double arrow 90°	Non-Illuminated	<b>800FP-U2X</b>	800F-AECU2CU260	800F-AECU1CU260	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
FORWARD FAST (white)/REVERSE FAST (black)	Double arrow 45°	Non-Illuminated	<b>800FP-U2X</b>	800F-AECU2CU264	800F-AECU1CU264	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
<b>Horizontal Mounting</b>						
LEFT (black)/RIGHT (white)	Single arrow 90°	Non-Illuminated	<b>800FP-U2X</b>	<b>800F-AECU1CU241</b>	<b>800F-AECU2CU241</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
DOWN (black)/UP (white)	Single arrow 0°	Non-Illuminated	<b>800FP-U2X</b>	<b>800F-AECU1CU242</b>	<b>800F-AECU2CU242</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
REVERSE (black)/FORWARD (white)	Single arrow 45°	Non-Illuminated	<b>800FP-U2X</b>	<b>800F-AECU1CU245</b>	<b>800F-AECU2CU245</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
LEFT FAST (black)/UP FAST (white)	Double arrow 90°	Non-Illuminated	<b>800FP-U2X</b>	<b>800F-AECU1CU261</b>	<b>800F-AECU2CU261</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
DOWN FAST (black)/UP FAST (white)	Double arrow 0°	Non-Illuminated	<b>800FP-U2X</b>	<b>800F-AECU1CU262</b>	<b>800F-AECU2CU262</b>	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			800F-PN§WX20
REVERSE FAST (black)/FORWARD FAST (white)	Double arrow 45°	Non-Illuminated	<b>800FP-U2X</b>	800F-AECU1CU265	800F-AECU2CU265	<b>800F-PX20</b>
		Illuminated	<b>800FP-LU2X</b>			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	<b>800FD-P3N3</b>
	120V AC	<b>800FD-P3N5</b>
Red	24V AC/DC	<b>800FD-P4N3</b>
	120V AC	<b>800FD-P4N5</b>
Yellow	24V AC/DC	<b>800FD-P5N3</b>
	120V AC	<b>800FD-P5N5</b>
Blue	24V AC/DC	<b>800FD-P6N3</b>
	120V AC	<b>800FD-P6N5</b>
Clear	24V AC/DC	<b>800FD-P7N3</b>
	120V AC	<b>800FD-P7N5</b>

### Bul. 800F Potentiometer Operators\*



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

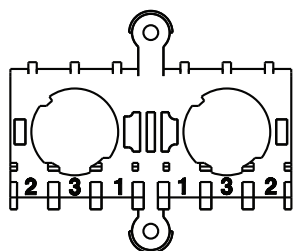
\* Only available in Position 1 for a 3-hole enclosure, Positions 1 and/or 5 for a 5-hole enclosure, Positions 1 and/or 7 for a 7-hole enclosure, and positions 1 and/or 9 for a 9-hole enclosure. No latches are required.

### Bul. 800F Hole Plug

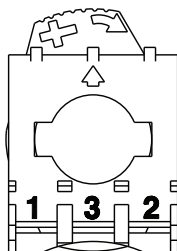


Color	Cat. No.
Black plastic	<b>800F-N2</b>

### 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	<b>800F-PX10E</b>	<b>800F-ALP</b>	—	—	<b>800F-X10E</b>
	Electrical interlock	<b>800F-PX11C</b>	<b>800F-ALP</b>	<b>800F-X01B</b>		
	Mechanical interlock§	<b>800F-LX20C</b>	<b>800FC-ALP</b>	—		
	Electrical & mechanical interlock§	<b>800F-LX22C</b>	<b>800FC-ALP</b>	<b>800F-X01B</b>		
2-speed	No interlock	<b>800F-PX20C</b>	<b>800F-ALP</b>	—	<b>800F-X10N</b> (Speed 2)	<b>800F-X10E</b> (Speed 1)
	Electrical interlock	<b>800F-PX21C</b>	<b>800F-ALP</b>	<b>800F-X01B</b>		
	Mechanical interlock§	<b>800F-LX40C</b>	<b>800FC-ALP</b>	—		
	Electrical & mechanical interlock§	<b>800F-LX42C</b>	<b>800FC-ALP</b>	<b>800F-X01B</b>		
3-speed	No interlock	800F-PX30C	<b>800F-ALP</b>	<b>800F-X10N</b>	<b>800F-X10E</b> (Speed 2)	<b>800F-X10M</b> (Speed 1)‡
	Mechanical interlock§	800F-LX60C	<b>800FC-ALP</b>	<b>800F-X10N</b> (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 *b<sub>1</sub>...k<sub>1</sub>* 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 <b>double</b> arrow (reverse fast — down/left)	O/H CRANE, REVERSE, FAST
DD	Black operator with <b>double</b> arrow (down fast)	LIFT, DOWN FAST
DL	Black operator with <b>double</b> arrow (left fast)	O/H CRANE, LEFT FAST
DF	White operator with <b>double</b> arrow (forward fast — up/right)	O/H CRANE, FORWARD, FAST
DR	White operator with <b>double</b> arrow (right fast)	O/H CRANE, RIGHT FAST
DU	White operator with <b>double</b> 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.

**b<sub>1</sub>...k<sub>1</sub>**

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 <b>double</b> arrow (down fast)	LIFT, DOWN FAST
FL	Black operator with <b>double</b> arrow (left fast)	O/H CRANE, LEFT FAST
FB	Black operator with <b>double</b> 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 <b>double</b> arrow (up fast)	LIFT, UP FAST
FR	White operator with <b>double</b> arrow (right fast)	O/H CRANE, RIGHT FAST
FF	White operator with <b>double</b> 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*

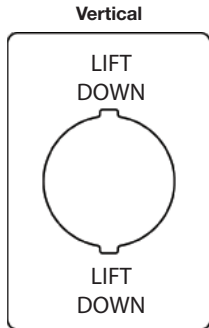
Operator Type		
2- Function Multi-Operator Push Buttons⊗>⊗⊕		
Code	Description	Legend Plate Text (When Selected)
VV	Black/white operator with arrow (down & up)	Not provided
VW	Black/white operator with arrow (left & right)	
VX	Black/white operator with arrow (reverse & forward)	
WV	Black/white operator, 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 <b>double</b> arrows (down fast & up fast)	
XW	Black/white operator with <b>double</b> arrows (left fast & right fast)	
XX	Black/white operator with <b>double</b> arrows (reverse fast & forward fast)	
YV	Black/white operator, illuminated, with <b>double</b> arrows (down fast & up fast)	
YW	Black/white operator, illuminated, with <b>double</b> arrows (left fast & right fast)	
YX	Black/white operator, illuminated, with <b>double</b> 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

*b<sub>1</sub>...k<sub>1</sub>*

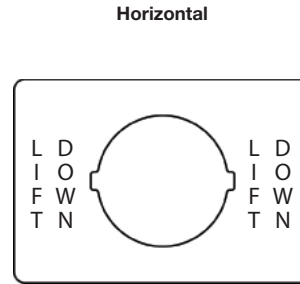
Interlock and/or Rubber Boot	
Code	Description
N	No interlock, no additional boots
E	Electrical interlock, no additional boots
M	Mechanical interlock, boots standard‡
B	Electrical and mechanical interlock, boots standard‡
R	No interlock, additional rubber boot
S	Electrical interlock, additional rubber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

Bulletin 800FC  
**22.5 mm Configured Pendant Stations**  
 Accessories

Accessories  
 Engraved Legend Plates



Cat. No. 800F-36VE416



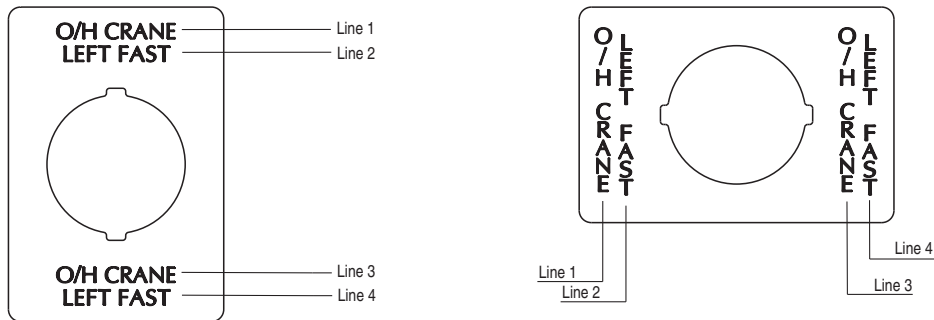
Cat. No. 800F-36HE416

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
			§
			§

\* 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	
<b>Nominal Voltage</b>		<b>Range</b>	<b>Current Draw</b>
LED Module Ratings			<b>Frequency</b>
	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 <sub>i</sub> )		Screw terminal = 690V, spring-clamp = 300V	
Wire capacity (screw terminal)‡		#18...12 AWG (0.75...2.5 mm <sup>2</sup> ) Max. (2) #14 AWG or (1) #12 AWG	
Wire capacity (spring-clamp terminal)		#18...14 AWG (0.75...1.5 mm <sup>2</sup> ) 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	Standard blocks	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)	
	Low voltage contact blocks	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	
Contact operation	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 early 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.)	
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	Standard	Silver-nickel	
	Low voltage	Gold-plated over silver	
Terminals	Screw	Brass	
	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 mm<sup>2</sup>) may not hold in terminal securely.



**Allen-Bradley**

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

Publication A117-CA001A-EN-P

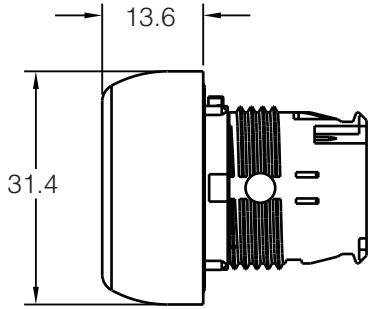
10-137

## 22.5 mm Configured Pendant Stations

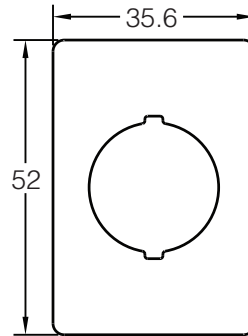
### Approximate Dimensions

#### Approximate Dimensions \*

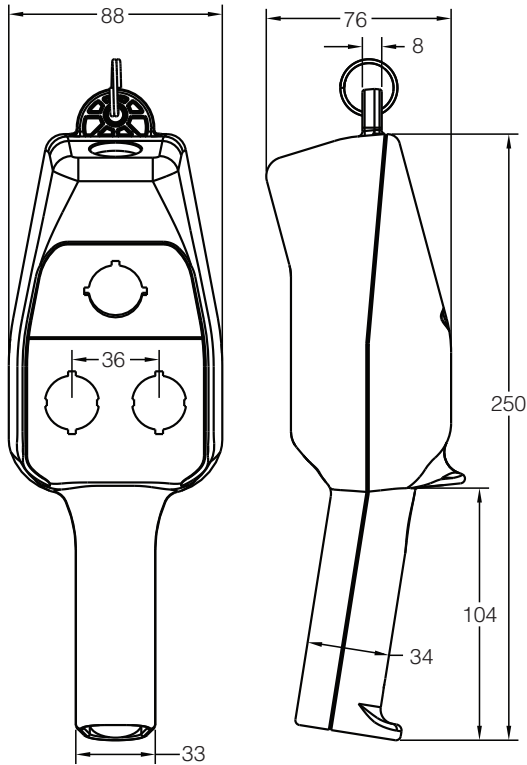
#### Bul. 800FC 1-, 2-, and 3-Speed Operator



#### Bul. 800FC Legend Plate

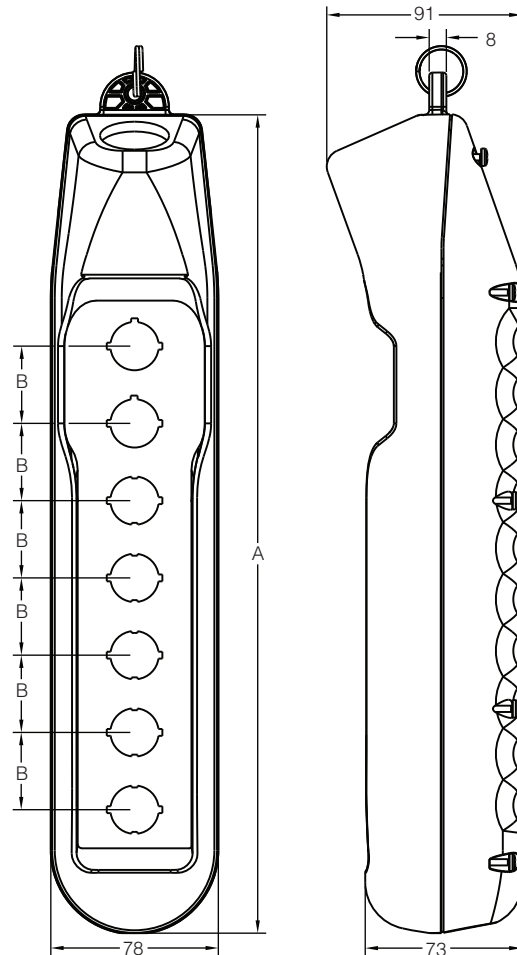


#### Bul. 800FC Pendant Station (3-Hole)



#### 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.