

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

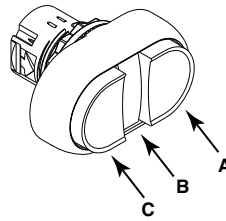
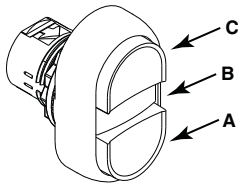


Number of Positions	Keyed	Operator Cat. No.	Composite Cat. No.*
2	No	800FP-SM22	800FP-SM22PX11
	Yes	800FP-KM21	800FP-KM21PX11
3	No	800FP-SM32	800FP-SM32PX20
	Yes	800FP-KM34	800FP-KM34PX20

* 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.

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.

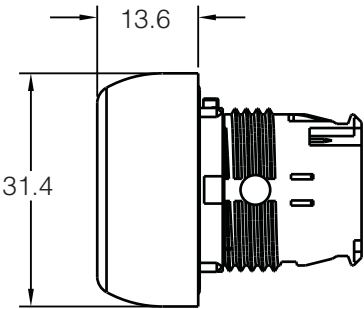
Note: Use UL Listed type S or SJ cords, with a smooth outer jacket rated for wet locations use (marked W) and oil resistant outer covering (marked O) such as SOW or SJOW with copper wire, rated 75 °C min., 18...12 AWG, with an overall OD of 7.5...15 mm for the small cable sleeve (**Cat. No. 800FC-AS3**)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

Material Listing

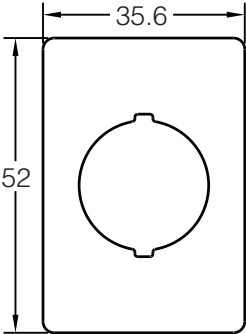
Component	For Use with	Material Used
Panel gasket	All operators	Nitrile, TPE
Diaphragm seal	Illuminated push button, non-illuminated push button	Automotive industry acceptable silicone
K-seal	Selector switch, key selector switch, push/twist-to-release E-stop, key E-stop	Nitrile
Diaphragm retainer, return 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

Bulletin 800FC
22.5 mm Configured Pendant Stations
 Approximate Dimensions

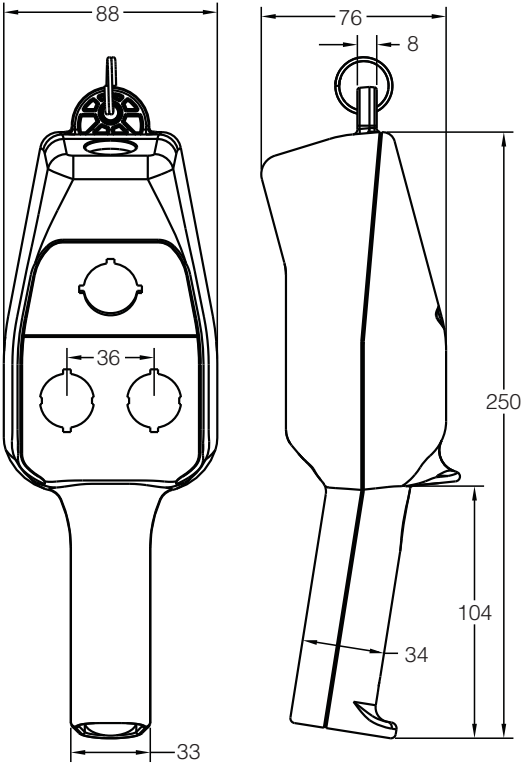
Approximate Dimensions *
 Bul. 800FC 1-, 2-, and 3-Speed Operator



Bul. 800FC Legend Plate

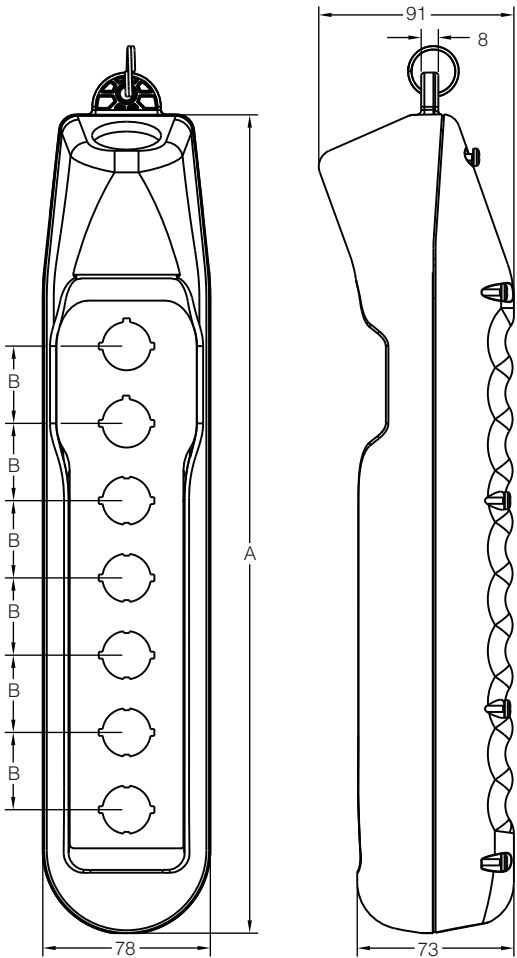


Bul. 800FC Pendant Station (3-Hole)



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.