Installation Instructions

Original Instructions

Allen-Bradley
by ROCKWELL AUTOMATION

Emergency Stop Operators

Bulletin Number 800F

800F Emergency Stop Operators are designed to be mounted in a 22.5 mm opening in either the equipment cabinet or control enclosure. These operators are not intended to be used in any applications other than emergency stop.

ATTENTION:
- Only qualified personnel must install, operate, service, and maintain electrical equipment. In no event will Rockwell Automation be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment. Failure to follow these instructions can result in death, serious injury, or equipment damage.
- Before starting your system, test all safety functions.
- To verify that all safety functions and mechanisms are working properly, you must test them regularly (at least annually).

Operators


800FP-MT44


800FP-MK44


800FP-MP94

800F	P	-	MT	4	4
	a		b	c	

a	
Operator Construction	
Code	Description
P	Plastic
M	Metal

b	
Operator Type	
Code	Type [Size Code from Table c]
MT	Twist-to-release [3, 4, 6]
MP	Push-pull [4, 9]
LMT	Illuminated twist-to-release [4, 6]
LMP	Illuminated push-pull [3, 4, 6, 9]
MK	Keyed [4]

c	
Operator Size	
Code	Type
3	30 mm
4	40 mm
6	60 mm
9	90 mm

Back-of-panel Components

Description	Material	Cat. No.
Mounting latch	Metal	800F-ALM
	Plastic	800F-ALP
Description	**Type**	**Cat. No.**
Contact blocks	N.O.	800F-X10
	N.C.	800F-X01
	N.O. low voltage — QuadConnect™ contact	800F-X10V
	N.C. low voltage — QuadConnect contact	800F-X01V
	N.C. — Self-Monitoring	800F-X01S (1)
	N.O. spring-clamp	800F-Q10
	N.C. spring-clamp	800F-Q01
Base-mounted contact blocks	N.O.	800F-BX10
	N.C.	800F-BX01
Description	**Type**	**Cat. No.**
Integrated light-emitting diode (LED) module	Screw terminal	800F-N*x*R (2)
	Spring clamp	800F-Q*x*R (3)
	Base mount	800F-BN*x*R (3)

(1) Cannot stack.
(2) Replace the *x* with one of the following: 3 = 24V AC/DC, 5 =120V AC, 7 = 240V AC, U = 24...120V AC/DC.
(3) Replace the *x* with one of the following: 3 = 24V AC/DC, 5 =120V AC, 7 = 240V AC.

Accessories

Emergency Stop Legend Plates

800F	-	15YS	
		a	b

a	
Size	
Code	Description
15Y	60 mm round (2)
15YS	60 mm round (3) (4)
16Y	90 mm round (3) (4)

b	
Text (1)	
Code	Description
Blank	No text
B112	EMERGENCY STOP, ARRÊT D'URGENCE, PARADA DE EMERGENCIA
E112	EMERGENCY STOP
F112	ARRÊT D'URGENCE
G112	NOT HALT
P112	PARADA DE EMERGENCIA
S112	PARO DE EMERGENCIA
T112	ARRESTO EMERGENZA

(1) For languages other than what is listed, contact your local Allen-Bradley distributor or Rockwell Automation sales office.
(2) 30.5 mm mounting hole.
(3) 22.5 mm mounting hole.
(4) Not for use with base-mounted contact blocks.

Guards

Description	Type	Cat. No.
Protective ping for use with non-illuminated 2-position maintained mushroom operators (40 mm only)	Yellow metal	800F-AMRGY
Plastic guard for use with the following operators: • 40 mm E-stop (SEMI Standards Compliant) • 40 mm illuminated/non-illuminated • 60 mm illuminated/non-illuminated	Yellow	800F-A6PR5
Narrow plastic guard for use with Bul. 800FD monolithic E-stops (SEMI standards compliant)	Yellow	800F-AMEGY
Locking attachments	Metal	800F-AML2

Rockwell Automation

Declaration of Conformity

Rockwell Automation, Inc. hereby declares that the Bulletin 800F Series emergency stop devices are in compliance with Essential Health and Safety Requirements (EHSR) of the Machinery Directive 2006/42/EC (MD) and EN 60947-5-1.

The full text version of the EU Declaration of Conformity is available from rok.auto/certifications.

Specifications

Table 1 - Product Certifications

Attribute	Plastic (Bulletin 800FP) and Metal (Bulletin 800FM)
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 Compliant	Yes

Table 2 - Mechanical Ratings — Operators

Attribute		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 (1)		IP65/66 (Type 3/3R/4/4X/12/13)	IP65/66 (Type 3/3R/4/12/13)
Mechanical durability (2)	500,000 cycles	Non-illuminated push-pull E-stop (3)	
	300,000 cycles	Twist-to-release E-stop, illuminated push-pull E-stop (3)	
Operating forces (typical with one contact block)		Flush/extended = 5 N, E-stop = 36 N Mushroom = 9 N	
Operating torque (typical 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)	

(1) Momentary mushroom operators are IP65. Plastic keyed operators are IP66, Type 4/13; not Type 4X.
(2) Per EN 60947-5-1 (Annex C).
(3) Limit of four contact blocks (max) for these devices.

Table 3 - Environmental — Operators

Attribute		Plastic (Bulletin 800FP)	Metal (Bulletin 800FM)
Temperature Range	Operating	-25…+70 °C (-13…+158 °F) (1)	
	Short-term storage	-40…+85 °C (-40…+185 °F)	
Humidity		50…95% RH from 25…60 °C (77…140 °F)	

(1) 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).

Table 4 - Electrical Ratings — Back-of-panel Components

Attribute		Screw Termination	Spring Clamp Termination		
Standard Contact Block Ratings		A600, Q600 600V AC	A300, Q300 300V AC		
		AC 15, DC 13 to IEC/EN 60947-5-1 and UL 508, 17V, 5 mA min			
Low-voltage Contact Block Ratings (1)		5V, 1 mA DC min. C300, R150, AC 15, DC 13 to EN 60947-5-1 and UL 508			
	Lamp Voltage	**Voltage Range**	**Current, Typical**	**Leakage Current**	**Frequency**
LED Module Ratings	Universal 24V AC 24V DC 120V AC 240V AC	24…120V AC/DC 10…29V AC 10…30V DC 102…132V AC 204…264V AC	15 mA (AC), 12 mA (DC) 31 mA 24 mA 6 mA 6 mA	3 mA 3 mA 3 mA 3 mA 3 mA	50/60 Hz, DC 50/60 Hz DC 50/60 Hz 50/60 Hz
Thermal Current		10 A max. enclosed (40 °C [104 °F] ambient) to UL508, EN 60947-5-1			
Insulation Voltage (U_i)		Screw terminal = 690V, spring-clamp = 300V			
Wire Capacity	Screw terminal (2)	#18…12 AWG (0.75…2.5 mm²) Max. (2) #14 AWG or (1) #12 AWG			
	Spring-clamp terminal	#18…14 AWG (0.75…1.5 mm²) One per clamp, two clamps per terminal			
Recommended Tightening Torque on Screw Terminals		0.7…0.9 N•m (6…8 lb•in)			
Dielectric Strength (Minimum)		2500V for 1 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		Fingersafe conforming to IP2X			

(1) Low-voltage contacts are recommended for applications below 17V, 5 mA.
(2) Wires less than #18 AWG (0.75 mm²) may not hold in terminal securely.

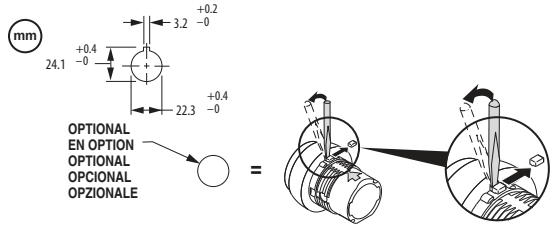
Table 5 - Mechanical Ratings — Back-of-panel Components

Attribute		Value	
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. & S.M.C.B.	Slow double make and break — positive opening ⊖	
	N.C.L.B.	Double break / double make, late break — positive opening ⊖	
Push button travel to change electrical state		N.C.	1.5 mm (0.060 in.)
		N.O. and N.C.L.B.	2.5 mm (0.1 in.)
Operating forces (typical)	Single-circuit contact block		3.4 N
	Dual-circuit contact block		5…6.5 N

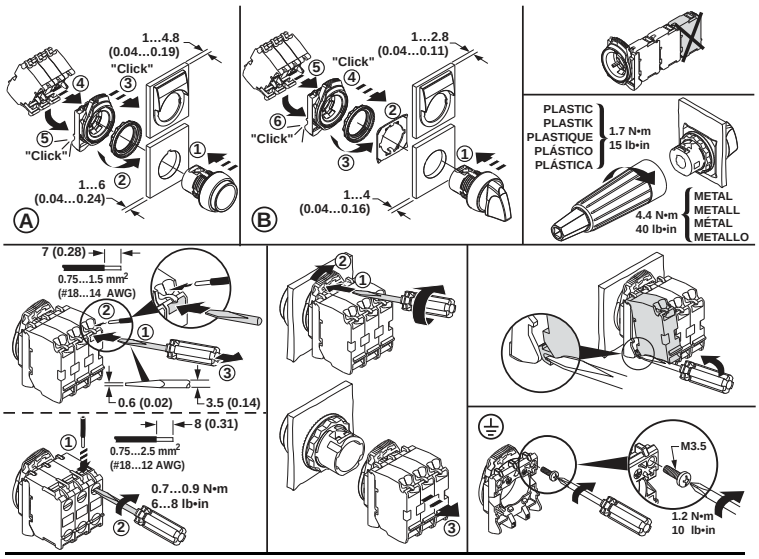
Table 6 - Illumination — Back-of-panel Components

Attribute		Value
LED Dominant Wavelength	Green Red White	525 nm 629 nm —
LED Luminous Intensity	Green Red White	780 mcd 780 mcd 360 mcd
Incandescent maximum wattage		2.6 W

Installation



Dimensions in [mm (in.)]

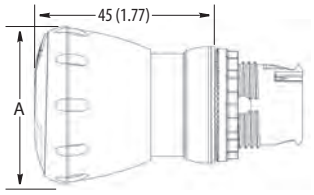


Ⓐ / Ⓑ			EMERGENCY STOP ø60, ø90
	40	40 / 60	60 / 90
	30	40 / 60	

Approximate Dimensions

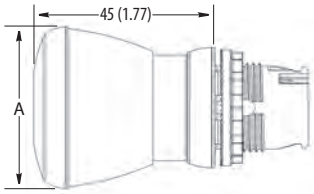
Operators [mm (in.)]

Illuminated and Non-illuminated (30 mm, 40 mm, and 60 mm)



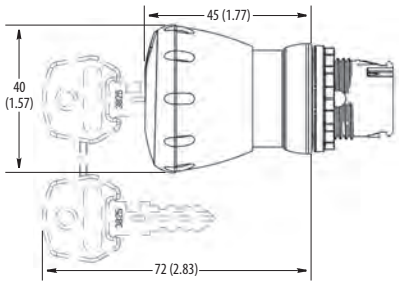
Twist-to-release Operator

Operator	A
30 mm	30 (1.18)
40 mm	40 (1.57)
60 mm	60 (2.36)

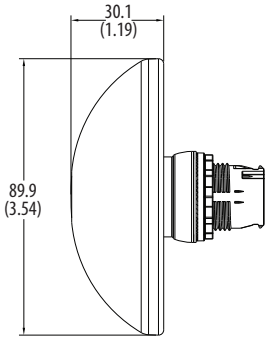


Push-pull Mushroom Operator

Mushroom Key Release Operator (40 mm)

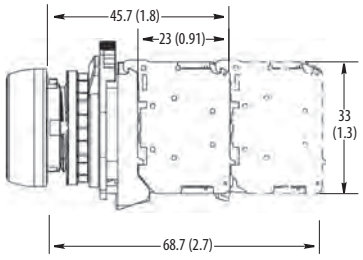


90 mm Half Dome

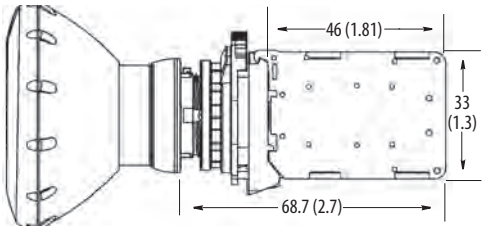


Back-of-panel Components [mm (in.)]

Contact Cartridges with Latch



Dual-circuit Contact Block or Self-monitoring Contact Block (1 Deep, Max)



Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental information on its website at rok.auto/pec.

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