

Emergency Stop Devices

Push Buttons

800 E-Stops ①

Specifications—22.5mm

Front of Panel (Operators)

Mechanical Ratings		
Description	Plastic (800EP/ES)	Metal (800EM/EB)
Vibration (assembled to panel)	10 to 2000Hz, 1.52mm displacement (peak-to-peak) max./10g max.	
Shock	1/2 cycle sine wave for 11ms and no damage at 100g	
Degree of protection	IP66 (NEMA Type 3, 3R, 4, 4X, 12, 13)	IP66 (NEMA Type 3, 3R, 4, 12, 13)
Mechanical design life (typical)	500,000 cycles: 100,000 cycles: 50,000 cycles:	mushroom operators mushroom key operators (plastic), push-pull/twist operators mushroom key operators (metal)
Environmental		
Temperature range (operating): per IEC 947-1	-25°C to +55°C (-13°F to +131°F) ②	
Temperature range (short term storage): per IEC 947-1	-40°C to +70°C (85°C max. for 24 hours) -40°F to +158°F (185°F max. for 24 hours)	
Materials		
Bushings, mounting rings	Glass-filled thermoplastic polyester, rated UL94 V-O	Die-cast zinc; dark olive chromate finish
Bezels	Glass-filled thermoplastic polyester, rated UL94 V-O	Anodized aluminum (EB, EM, ES line)
Seals: diaphragm style	Silicone rubber	
Seals: lip and flat gasket styles	Nitrile rubber	
Illuminated lenses	Transparent nylon Type 12	

① See Performance Data: refer to page Important-2 of the A113 Industrial Controls catalogue.

② Operating temperature below 0°C (32°F) are based on the absence of freezing moisture and liquids.

③ Per IEC 947-1.

④ UL File & Guide Number E14840.

Back of Panel Components

Electrical Ratings		
Description	2-Across Style	3-Across Style
Standard contact block ratings②	NEMA, EEMAC A600, Q600, VDE 0660; AC15, DC 13 to IEC 947	NEMA, A600, Q600, 600V AC; AC15, DC 13 to IEC 947
Thermal current	10A max. continuous current to UL508, CSA22.2 #14, IEC 947, VDE 0660, part 200	10A max. without enclosure (40°C (104°F) ambient) 6A with enclosure (60°C (140°F))
Terminal marking	Conforming to CENELEC EN50013	
Wire capacity (screw terminal)	Min of (1) #20AWG Max of (2) #14AWG or (1) #12AWG	#18 to #12AWG (0.75 to 2.5mm ²) Max (2) #14AWG or (1) #12 AWG
Dielectric strength (min)	2,200V for one minute	
Electrical design life cycles	1,000,000 at 2A	
Electrical shock protection: Per IEC 529	Finger-safe conforming to IP2X	
Mechanical Ratings		
Vibration	10 to 2000Hz 1.52mm displacement (peak-to-peak) max./10g max. 6hr	10 to 150Hz 0.15mm displacement (peak-to-peak) max./2g max. 6hr
Shock	1/2 cycle sine wave for 11ms and no damage at 100g min	1/2 cycle sine wave for 11ms and no damage at 50g max
Contact block mechanical design	5,000,000 cycles	
Contact operation	N.C. slow make, double break (positive opening); N.C.L.B. late break, double break (positive opening)	
Operating forces (typical)	2.78N: all contact blocks	2.6N: each N.C. contact block
Environmental		
Temperature range		
Operating ②③	-25°C to +55°C (-13°F to +131°F)	
Short term storage ④	-25°C to +55°C (70°C max for 24 hrs) (-13°F to +131°F (158°F max for 24 hrs))	
Materials		
Springs	Stainless steel and zinc coated music wire	
Electrical contacts:		
Standard	Silver nickel alloy	Fine silver
Low voltage	Palladium silver alloy: spanner; gold-plated silver nickel: stationary contacts	Gold-plated over silver
Terminals:	Screw type	Plated steel
	Push-on type	
Agency approvals		
Approvals	UL listed ④/CSA certified	
Standard conformity	UL508, UL486E CSA22.2 #14, NEMA ICS-1 and ICS-2 (1983), IEC 144, IEC 947-1, IEC 947-5, VDE 0550, VDE 0660, Part 200	NEMA ICS-1 and ICS-2 IEC 204-1, 947; SEV 1005, 1093; VDE 0113, 0660 Part 201; BS 4794; CEE 24; UL 486E, UL 508, CSA22.2 #14

Product Selection—22.5mm**2-Position Push-Pull Operators, Non Illuminated—Twist-to-Release, Push-Pull**

40mm Trigger Action
Twist-to-Release Mushroom



40mm Twist-to-Release Mushroom



40mm Push-Pull Mushroom



800E-15YE112
Legend Plate for 40mm Cap

Colour	Operator Material	40mm Mushroom Operator	Catalogue Number
Red	Plastic	Twist-to-Release — Round (Trigger Action) ❶	800EP-MTS44
	Metal		800EM-MTS44
	Plastic	Push-Pull Twist-to-Release — Round ❷	800EP-MT4
	Metal		800EM-MT4
	Plastic	Push-Pull — Round ❸	800ES-MP24
	Metal		800EM-MP24

2-Position Trigger Action Operators, Non Illuminated—Key Release ❸

40mm Key Release Mushroom



60mm Key Release Mushroom



800E-16YE112
Legend Plate for 60mm Cap

Colour	2 Position Trigger Action ❶ Mushroom Operator	Size	Catalogue Number
Red	Ronis Key Lock	40mm—Round	800EP-MKR44
		60mm—Round	800EP-MKR64
	Zadi Key Lock	40mm—Round	800EP-MKZ44
		60mm—Round	800EP-MKZ64

Back-of-Panel Components, Non Illuminated Operators

Mounting Latch and Contact Block Combination		Mounting	Contact ❶❷	Catalogue Number
	2-Across	2-Across	1 N.C. Late break	800E-2LX01L
			1 N.O. - 1 N.C. Late break	800E-2LX11L
	3-Across	3-Across	1 N.C. Late break	800E-3LX01L
			1 N.O. - 1 N.C. Late break	800E-3LX11L
	2-Across	3-Across	1 N.C. Self-monitoring	800E-2LX01LS
	3-Across			800E-3LX01S

❶ Trigger action operators are compliant with EN418 standards using standard N.C., N.C. Late Break, or N.C. Self-Monitoring contact blocks. Key Release operators are IP66, Type 4/13.

❷ Emergency stop push buttons are compliant with EN 418 standard when using N.C. Late break (N.C.L.B.) contact blocks.

❸ Key release operators are IP66, Type 4 and 13.

Emergency Stop Devices

Push Buttons

800 E-Stops

Product Selection—22.5mm

2-Position Red Push-Pull Operators, Illuminated —Mushroom ❶



40mm Mushroom Push-Pull

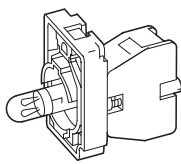
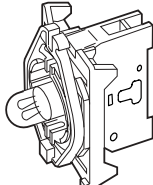
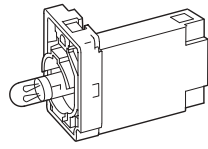
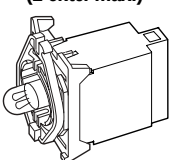
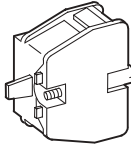
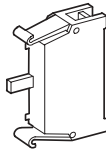


60mm Jumbo Mushroom Push-Pull



800E-15YE112
Legend Plate for 40mm Cap

Operator Material	Size	Catalogue Number		
Plastic	40mm	800ES-LMP24		
	60mm	800ES-LMJP24		
Metal	40mm	800EM-LMP24		
	60mm	800EM-LMJP24		

Back-of-Panel Components, Illuminated Operators	Mounting	Type	Volts	Catalogue Number
2-Across (5 ckts. max.)  3-Across (4 ckts. max.)  <i>Full Voltage Power Module with Latch</i>	2-Across	Incandescent	24 AC/DC	800E-2DL3
			120 AC/DC	800E-2DL5
		LED (red)	24 AC/DC	800E-2DL3R
			120 AC	800E-2DL5R
	3-Across	Incandescent	24 AC/DC	800E-3DL3
			120 AC/DC	800E-3DL5
		LED (red)	24 AC/DC	800E-3DL3R
			120 AC	800E-3DL5R
2-Across (3 ckts. max.)  3-Across (2 ckts. max.)  <i>Transformer Power Module with Latch</i>	2-Across	Incandescent	24 AC/DC	800E-2TL5
			120 AC/DC	800E-2TL7
		LED (red)	24 AC/DC	800E-2TL5R
			120 AC	800E-2TL7R
	3-Across	Incandescent	24 AC/DC	800E-3TL5
			120 AC/DC	800E-3TL7
		LED (red)	24 AC/DC	800E-3TL5R
			120 AC	800E-3TL7R
2-Across  3-Across  <i>Contact Blocks</i>	2-Across	Late Break ❶	1 N.C. Late break	800E-2X01L
	3-Across			800E-3X01L

❶ Emergency stop push buttons are compliant with EN 418 standard when using N.C.L.B. contact blocks.

Specifications—30.5mm

Electrical Ratings

Dielectric strength	2200V for one minute
Electrical design life cycles	1,000,000 at max. rated load

Mechanical Ratings

Vibration	10 to 2000Hz 1.52mm displacement (peak-to-peak) max./10g max. (except Logic Reed)
Shock	1/2 cycle sine wave for 11ms $\geq$ 25g (contact fragility) and no damage at 100g
Degree of protection	Type 1, 4, 4X, 12, 13; watertight/oiltight IEC 529 IP66/65
Mechanical design life cycles (Push-pull/twist-to-release)	250,000 min.
Contact operation	Shallow, mini, and low voltage contact blocks: Slow, double make and break.
Typical operating forces 2-position push-pull	7.5lbs max. push or pull

Environment

Temperature range	
Operating❷	-40°C to +55°C (-40°F to +131°F)
Storage	-40°C to +85°C (-40°F to +185°F)

Standard Contact Ratings

Maximum thermal continuous current I_{th} 10A AC/2.5A DC.

Bulletin 800T units with 800T-XA contacts have ratings as follows:

Max. Opertnl. Volts Ue	Utilization Category		Rated Operational Currents		
	IEC	NEMA	Volts Ue	Make	Break
AC 600	AC-15	A600	120 to 600	7200VA	720VA
			72 to 120	60A	720VA
			24 to 72	60A	10A
DC 600	DC-13	Q600	28 to 600	69VA 2.5A	
			24 to 28 ❸		

❶ Performance Data: see publication A113, page Important-2.

❷ Operating temperatures below freezing are based on the absence of moisture and liquids.

❸ For applications below 24V/24mA, PenTUFF™ contacts are recommended.

Emergency Stop Devices

Push Buttons

800 E-Stops

Product Selection—30.5mm

Emergency Stop Operators — 2-Position Red Non Illuminated



2-Position Push-Pull



2-Position Push-Pull/Twist

Operator Position		Enclosure Protection	Release	Catalogue Number
Contacts Maintained Out	Maintained In			
N.C.L.B. ❶ Closed Open		Type 4 & 13	Push-Pull	800T-FX6D4
		Type 4, 4X & 13	Push-Pull/Twist	800T-FXT6D4 800H-FRXT6D4
N.O. Open Closed N.C.L.B. ❶ Closed Open		Type 4 & 13	Push-Pull	800T-FX6A1
		Type 4, 4X & 13	Push-Pull/Twist	800T-FXT6A1 800H-FRXT6A1
N.C.L.B. ❶ Closed Open N.C.L.B. ❷ Closed Open		Type 4 & 13	Push-Pull	800T-FX6A5
		Type 4, 4X & 13	Push-Pull/Twist	800T-FXT6A5 800H-FRXT6A5
S.M.C.B. ❶❷ Closed Open		Type 4 & 13	Push-Pull	800TC-FX6D4S
		Type 4, 4X & 13	Push-Pull/Twist	800TC-FXT6D4S 800HC-FRXT6D4S
N.O. Open Closed S.M.C.B. ❶❷ Closed Open		Type 4 & 13	Push-Pull	800TC-FX6A1S
		Type 4, 4X & 13	Push-Pull/Twist	800TC-FXT6A1S 800HC-FRXT6A1S
S.M.C.B. Closed Open S.M.C.B. ❶❷ Closed Open		Type 4 & 13	Push-Pull	800TC-FX6A5S
		Type 4, 4X & 13	Push-Pull/Twist	800TC-FXT6A5S 800HC-FRXT6A5S

Note: Emergency stop push buttons are compliant with EN-418 and IEC 60947-5-5 Standards when using N.C.L.B. contact blocks.

- ❶ Normally closed late break contact. When button is pushed from the OUT to IN position, the mechanical detent action of the operator occurs before electrical contacts change state. When the button is pulled from the IN to the OUT position, the electrical contacts change state before the mechanical detent occurs.
- ❷ The Self-Monitoring Contact Block (S.M.C.B.) is composed of a N.C.L.B. contact wired in series with a N.O. monitoring contact. The N.O. monitoring contact automatically closes when the S.M.C.B. is properly installed onto the E-Stop operator. If the S.M.C.B. is separated from the E-Stop operator, the N.O. monitoring contact will automatically open.

Product Selection—30.5mm**2-Position Red Illuminated, Push-Pull and Push-Pull/Twist Release Units**

Illuminated 2-Position Push-Pull



Illuminated 2-Position Push-Pull/Twist

Operator Position				Type	Lamp	Volts	Enclosure Protection	Release	Catalogue Number
Contacts		 Maintained Out	 Maintained In						
	N.O. N.C.L.B.❶❷	Open Closed	Closed Open	Full Voltage	Incan-descent	120 AC/DC	Type 4 & 13	Push-Pull	800T-FXQ10RA1
							Type 4, 4X & 13	Push-Pull/Twist	800T-FXTQ10RA1
						24 AC/DC	Type 4 & 13	Push-Pull	800H-FRXTQ10RA1
							Type 4, 4X & 13	Push-Pull/Twist	800T-FXQ24RA1
					LED	120 AC	Type 4 & 13	Push-Pull	800T-FXQ24RA1
							Type 4, 4X & 13	Push-Pull/Twist	800H-FRXTQ24RA1
						24 AC/DC	Type 4 & 13	Push-Pull	800T-FXQH10RA1
							Type 4, 4X & 13	Push-Pull/Twist	800T-FXTQH10RA1
				Trans-former	Incan-descent	120 AC	Type 4 & 13	Push-Pull	800H-FRXTQH10RA1
							Type 4, 4X & 13	Push-Pull/Twist	800T-FXQH24RA1
						240 AC	Type 4 & 13	Push-Pull	800T-FXTQH24RA1
							Type 4, 4X & 13	Push-Pull/Twist	800H-FRXTQH24RA1
					LED	120 AC	Type 4 & 13	Push-Pull	800T-FXP16RA1
							Type 4, 4X & 13	Push-Pull/Twist	800T-FXTP16RA1
						240 AC	Type 4 & 13	Push-Pull	800H-FRXTTP16RA1
							Type 4, 4X & 13	Push-Pull/Twist	800T-FXP26RA1
				LED	120 AC	120 AC	Type 4 & 13	Push-Pull	800T-FXTP26RA1
							Type 4, 4X & 13	Push-Pull/Twist	800H-FRXTTP26RA1
					240 AC	240 AC	Type 4 & 13	Push-Pull	800T-FXPH16RA1
							Type 4, 4X & 13	Push-Pull/Twist	800T-FXTPH16RA1
						240 AC	Type 4 & 13	Push-Pull	800H-FRXTPH16RA1
							Type 4, 4X & 13	Push-Pull/Twist	800T-FXPH26RA1
						240 AC	Type 4 & 13	Push-Pull	800T-FXTPH26RA1
							Type 4, 4X & 13	Push-Pull/Twist	800H-FRXTPH26RA1

Note: A jumbo or large legend plate is recommended if space allows.

Note: Emergency stop push buttons are compliant with EN-418 and IEC 60947-5-5 Standards when using N.C.L.B. contact blocks.

- ❶ Normally closed late break contact. When button is pushed from the OUT to IN position, the mechanical detent action of the operator occurs before electrical contacts change state. When the button is pulled from the IN to the OUT position, the electrical contacts change state before the mechanical detent occurs.
- ❷ Consult your local Allen-Bradley sales office for availability of illuminated E-Stops with Self Monitoring Contact Blocks (S.M.C.B.s).

Emergency Stop Devices

Push Buttons

800 E-Stops

Accessories

	Type	Style	Colour	Catalogue Number
	Enclosure Plastic (IP66, NEMA 4/4X/13 Base Mount For use with 22.5mm Push Buttons	1 Hole	Yellow	800E-1PY
		2 Hole		800E-2PY
		3 Hole		800E-3PY
		5 Hole		800E-5PY
	Square Legend Plate	For 800E Buttons Aluminum	Aluminum, Blank	800E-19AE100
	40mm Circular Legend Plate	For 800 E Buttons	Yellow, Emergency Stop	800E-15YE112
	60mm Circular Legend Plate			800E-16YE112
	Circular Legend Plate	For 800T Buttons	Yellow, Blank	800T-X646
			Yellow, Emergency Stop	800T-X646EM
		For 800H	Yellow, Blank	800H-W690