


















Pushbutton Components

Table 47-33. Momentary Contact Pushbuttons, Non-illuminated — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Will Accept Maximum of 3 Contact Blocks (6 Circuits) When Used with Supplied 3-Way Adapter and Optional Operator Plug.			Color	E22 Series — Plastic Operators				EM22 Series — Metal Operators	
				Black Bezel		Chrome Bezel		Chrome Bezel	
				Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$
E22 Black	E22 Chrome	EM22 Chrome	25 mm Diameter Flush Button						
			Black	E22PB1		E22P1		EM22P1	
			Red	E22PB2		E22P2		EM22P2	
			Green	E22PB3		E22P3		EM22P3	
			Yellow	E22PB4		E22P4		EM22P4	
			White	E22PB5		E22P5		EM22P5	
			Blue	E22PB6		E22P6		EM22P6	
			Gray	E22PB7		E22P7		EM22P7	
			Orange	E22PB8		E22P8		EM22P8	
			25 mm Diameter Extended Button						
			Black	E22EB1		E22E1		EM22E1	
			Red	E22EB2		E22E2		EM22E2	
			Green	E22EB3		E22E3		EM22E3	
			Yellow	E22EB4		E22E4		EM22E4	
			White	E22EB5		E22E5		EM22E5	
			Blue	E22EB6		E22E6		EM22E6	
			Gray	E22EB7		E22E7		EM22E7	
			Orange	E22EB8		E22E8		EM22E8	
			25 mm Diameter with Full Shroud						
			Black	—		E22PF1		EM22PF1	
			Red	—		E22PF2		EM22PF2	
			Green	—		E22PF3		EM22PF3	
			Yellow	—		E22PF4		EM22PF4	
			White	—		E22PF5		EM22PF5	
			Blue	—		E22PF6		EM22PF6	
			Gray	—		E22PF7		EM22PF7	
			Orange	—		E22PF8		EM22PF8	
			28 mm Dia. Mushroom Head Button						
			Black	E22MB1		E22M1		EM22M1	
			Red	E22MB2		E22M2		EM22M2	
			Green	E22MB3		E22M3		EM22M3	
			Yellow	E22MB4		E22M4		EM22M4	
			Blue	E22MB6		E22M6		EM22M6	
			40 mm Dia. Mushroom Head Button						
			Black	E22LB1		E22L1		EM22L1	
			Red	E22LB2		E22L2		EM22L2	
			Green	E22LB3		E22L3		EM22L3	
			Yellow	E22LB4		E22L4		EM22L4	
			Blue	E22LB6		E22L6		EM22L6	
			50 mm Dia. Mushroom Head Button — Plastic						
			Black	E22JPB1		E22JP1		EM22JP1	
			Red	E22JPB2		E22JP2		EM22JP2	
			Green	E22JPB3		E22JP3		EM22JP3	
			Yellow	E22JPB4		E22JP4		EM22JP4	
			Blue	E22JPB6		E22JP6		EM22JP6	
			Red (Metal)	E22JB2		E22J2		EM22J2	
			Red (Metal) Engraved EMERGENCY STOP						
				E22JB2N8		E22J2N8		EM22J2N8	


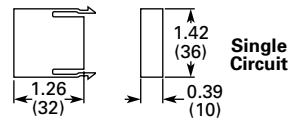

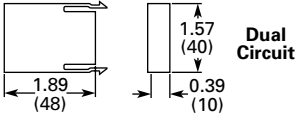

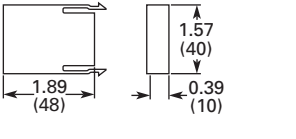
Note: For Rear of Panel Extensions, see Table 47-128 on Page 47-94.


Ordering Example — A complete Pushbutton Unit consists of the following:

	Operator See Above		Operator Plug E22BA2 Required if 3rd Contact Block Is Used. See Page 47-75		Legend Plate or Print Option See Pages 47-79 – 47-85		Mounting Adapter E22BA1 (Supplied with Operator). For 5-Way Adapter, See Page 47-77		Contact Blocks See Page 47-69
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Contact Blocks

Table 47-93. Contact Blocks

	Description	Suffix Code ①	Catalog Number	Price U.S. \$	Approximate Dimensions in Inches (mm)
	1NC 1NO 1NO Early Make 1NC Late Break 1NC (Logic) 1NO (Logic) 1NC Added Spring Pressure	B A — — — — —	E22B1 ④ E22B2 E22B3 E22B4 ② E22B1E ③ E22B2E ③ E22BR1		
	1NO-1NC 2NO	W V	E22B11 ④ E22B20		
	1 Self Monitoring 1NC	—	E22CB1M ④⑤		

- ① Add Suffix to operator Catalog Number to order as a complete device. Example E22PB1B = Flush Black pushbutton with 1NC contact block.
- ② E22B4 contact block not available for use with 5-way mounting adapter.
- ③ For low voltage applications.
- ④ Marked with Direct Opening Action (DOA) Symbol  per IEC 60947-5-1 (Annex K) and NEMA ICS 5 (Part 6).
- ⑤ For use with Trigger Action Emergency Stop (E22LTA2) Operators.

 Direct Opening Action (DOA) for IEC 60947-5-1 (Annex K) and NEMA ICS 5 (Part 6) Compliance

Table 47-94. Mechanical Operating Parameters of Operators with E22B1 and E22B11 (NC Contacts Only)

DOA Operating Parameters	Latching Trigger Action E-Stop		Pushbuttons				2-Position Push-Pull		3-Position Push-Pull				Key, Lever and Knob Selector Switches			
	E-Stop + E22B1	E-Stop + E22B11	25 mm + E22B1	25 mm + E22B11	Mush-room + E22B1	Mush-room + E22B11	2-Pos. Push-Pull + E22B1	2-Pos. Push-Pull + E22B11	Push + E22B1	Push + E22B11	Pull + E22B1	Pull + E22B11	Spring Return + E22B1	Spring Return + E22B11	Maintained + E22B1	Maintained + E22B11
Min. Travel to Open Contact — Inches (mm)	0.24 (6.1)	0.24 (6.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)	0.08 (2.1)
Min. Force to Open Contact — lb (N)	5.00 (22.24)	5.00 (22.24)	0.74 (3.27)	0.90 (4.00)	0.84 (3.74)	1.00 (4.45)	0	0	2.09 (9.31)	2.25 (10.02)	3.01 (13.37)	3.17 (14.08)	0.29 (1.29)	0.45 (2.00)	0.30 (1.34)	0.46 (2.05)
Total Travel — Inches (mm)	0.29 (7.4)	0.29 (7.4)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)	0.23 (5.8)