


















**E22 and EM22 Series, Pushbutton Components**

**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. \$	
			<b>25 mm Diameter Flush Button</b>							
			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		
			<b>25 mm Diameter Extended Button</b>							
			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		
			<b>25 mm Diameter with Full Shroud</b>							
			Black	—		E22PF1		EM22PF1		
			Red	—		E22PF2		EM22PF2		
			Green	—		E22PF3		EM22PF3		
			Yellow	—		E22PF4		EM22PF4		
			White	—		E22PF5		EM22PF5		
			Blue	—		E22PF6		EM22PF6		
			Gray	—		E22PF7		EM22PF7		
			Orange	—		E22PF8		EM22PF8		
			<b>28 mm Dia. Mushroom Head Button</b>							
			Black	E22MB1		E22M1		EM22M1		
			Red	E22MB2		E22M2		EM22M2		
			Green	E22MB3		E22M3		EM22M3		
			Yellow	E22MB4		E22M4		EM22M4		
			Blue	E22MB6		E22M6		EM22M6		
			<b>40 mm Dia. Mushroom Head Button</b>							
			Black	E22LB1		E22L1		EM22L1		
			Red	E22LB2		E22L2		EM22L2		
			Green	E22LB3		E22L3		EM22L3		
			Yellow	E22LB4		E22L4		EM22L4		
			Blue	E22LB6		E22L6		EM22L6		
			<b>50 mm Dia. Mushroom Head Button — Plastic</b>							
			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




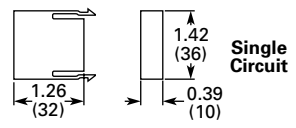

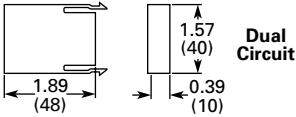

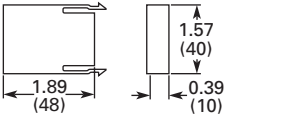
**Contact  
Blocks**  
See Page 47-69


Dimensions ..... Page 47-89  
Suffix Codes ..... Page 47-98  
Discount Symbol ..... 1CD1

**E22 and EM22 Series, Contact Blocks**

**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		 <b>Single Circuit</b>
	1NO-1NC 2NO	W V	E22B11 ④ E22B20		 <b>Dual Circuit</b>
	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)