
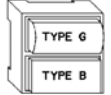



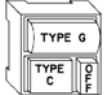
Square Multifunction Operators and Indicating Lights (Continued)

Table 47-145. Single Button Operator with Indicating Light/without Button or Lens — Order Button and Lenses Separately — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

	Operation (Bottom Button)	Type of Light Element								Button/Lens Type
		Transformer (60/50 Hertz AC)				Full Voltage (60/50 Hertz AC or DC)				
		Voltage	Lamp Number ①	Catalog Number	Price U.S. \$	Voltage	Lamp Number ①	Catalog Number	Price U.S. \$	
 <p>Single Button Operator and Indicating Light shown with Button & Lens</p>	Momentary	120	6PSB	E30DA		24 120	24PSB 120PSB	E30DX3 E30DF		Button and Lens Types Required  Order from Tables on Pages 47-105 and 47-107

① Light units will also accept LED lamps. For LED Part Numbers, see Table 47-149 on Page 47-104.


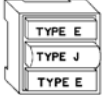
Table 47-146. Single Button Operator with (OFF) Release Bar and Indicating Light — Includes OFF Bar/Button — Order Other Button and Lens Separately — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

	Operation (Bottom Button)	Type of Light Element								Button/Lens Type
		Transformer (60/50 Hertz AC)				Full Voltage (60/50 Hertz AC or DC)				
		Voltage	Lamp Number ②	Catalog Number	Price U.S. \$	Voltage	Lamp Number ②	Catalog Number	Price U.S. \$	
 <p>Single Button Operator with Release Bar and Indicating Light shown with Button & Lens</p>	Maintained	120	6PSB	E30DG		24 120	24PSB 120PSB	E30DX13 E30DM		Button and Lens Types Required ③  Order from Tables on Pages 47-105 and 47-107

② These operators are supplied as standard with red extended release bar(s) marked "OFF" as shown in sketch. For other colors or markings, contact your nearest Eaton Distributor or call our Customer Service Center 1-800-356-1243. For replacement of standard red release bar, order E30KR101.

③ Light units will also accept LED lamps. For LED Part Numbers, see Table 47-149 on Page 47-104.

Table 47-147. Two Button Operator with Indicating Light/without Buttons or Lens — Order Buttons and Lenses Separately — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

	Button Operation	Type of Light Element								Button/Lens Type
		Transformer (60/50 Hertz AC)				Full Voltage (60/50 Hertz AC or DC)				
		Voltage	Lamp Number ④	Catalog Number	Price U.S. \$	Voltage	Lamp Number ④	Catalog Number	Price U.S. \$	
 <p>Two Button Operator with Indicating Light shown with Button & Lens</p>	Momentary	120	6PSB	E30EA		24 120	24PSB 120PSB	E30EX3 E30EF	Button and Lens Types Required  Order from Tables on Pages 47-106 – 47-107	
	Momentary with Interlock	120	6PSB	E30EG		24 120	24PSB 120PSB	E30EX13 E30EM		



④ Light units will also accept LED lamps. For LED Part Numbers, see Table 47-149 on Page 47-104.

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 Replacement lamps and Lamp Receptacles Page 47-113
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E30 Series, Operators & Indicating Lights

Square Multifunction Operators and Indicating Lights (Continued)

Table 47-148. Two Button Operator with Dual Indicating Lights/without Buttons and Lenses — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

	Button Operation	Type of Light Element								Button/Lens Type
		Transformer (60/50 Hertz AC)				Full Voltage (60/50 Hertz AC or DC)				
		Voltage	Lamp No. ①	Catalog Number	Price U.S. \$	Voltage	Lamp No. ①	Catalog Number	Price U.S. \$	
 <p>Two Button Operator with Dual Indicating Lights shown with Button & Lens</p>	Momentary	120	6PSB	E30JA		24	24PSB	E30JX3		<p>Button and Lens Types Required</p>  <p>Order from Tables on Pages 47-106 – 47-107</p>
						120	120PSB	E30JF		

① Light units will also accept LED lamps. For LED Part Numbers, see Table 47-149.

Table 47-149. Replacement Lamps — Incandescent and LED

Lamp Voltage	Incandescent Lamps				LED Lamps				Price U.S. \$
	Manufacturers Part Number	Base Style	Eaton's Cutler-Hammer Part Number	Price U.S. \$	Eaton's Cutler-Hammer Part Number				
					Red	Green	Yellow	Blue ②	
6	6PSB	T2 Slide	28-1022		35-1523	35-1523-2	35-1523-3	35-1523-17	
12	12PSB	T2 Slide	28-1025		35-1523-11	35-1523-12	35-1523-13	35-1523-18	
24	24PSB	T2 Slide	28-1026		35-1523-4	35-1523-5	35-1523-6	35-1523-19	
28	28PSB	T2 Slide	28-1027		35-1523-4	35-1523-5	35-1523-6	35-1523-19	
48	48PSB	T2 Slide	28-1028		35-1523-14	35-1523-15	35-1523-16	35-1523-20	
120	120PSB	T2 Slide	28-1029		35-1523-7	35-1523-8	35-1523-9	35-1523-21	

② E30 blue LED bulbs may not provide sufficient intensity for some applications.

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Product Selection — Operator Components

Operating Buttons Only

Table 47-150. Type A Buttons with Standard Markings



	Color	Marking	Extended Button		Short Button		Color	Marking	Extended Button		Short Button		Button Application
			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	
 <p>Type A Extended Button for Use with Operators E30AA, Legend Characters 3/16 Inch (4.8 mm) High</p>	Black	Blank	E30KA100		E30KA150		Green	START	E30KA330		E30KA380		
	Black	START	E30KA101		E30KA180		Yellow	Blank	E30KA400		E30KA450		
	Red	Blank	E30KA200		E30KA250		White	Blank	E30KA500		E30KA550		
	Red	EMERG. STOP	E30KA204		—		Gray	Blank	E30KA600		E30KA650		
	Red	OFF	E30KA218		E30KA268		Black	Blank	E30KA700		E30KA750		
	Red	STOP	E30KA231		E30KA281		Orange	Blank	E30KA800		E30KA850		
	Green	Blank	E30KA300		E30KA350		Blue	Blank	E30KA900		E30KA950		

Table 47-151. Type B Buttons with Standard Markings





	Color	Marking	Extended Button		Short Button		Color	Marking	Extended Button		Short Button		Button Application
			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	
 <p>Type B Extended Button for Use with Operators E30AB thru AE, AL and DA thru DE, Legend Characters 3/16 Inch (4.8 mm) High</p>	Black	Blank	E30KB100		E30KB150		Black	REVERSE	E30KB125		E30KB175		
	Black	AUTO	E30KB101		E30KB151		Black	RUN	E30KB126		E30KB176		
	Black	CLOSE	E30KB102		E30KB152		Black	SLOW	E30KB128		E30KB178		
	Black	DOWN	E30KB103		E30KB153		Black	START	E30KB130		E30KB180		
	Black	FAST	E30KB105		E30KB155		Black	TEST	E30KB132		E30KB182		
	Black	FORWARD	E30KB107		E30KB157		Black	UP	E30KB134		E30KB184		
	Black	HIGH	E30KB109		E30KB159		Red	Blank	E30KB200		E30KB250		
	Black	IN	E30KB110		E30KB160		Red	EMER. STOP	E30KB204		—		
	Black	INCH	E30KB111		E30KB161		Red	OFF	E30KB218		E30KB268		
	Black	JOG	E30KB112		E30KB162		Red	STOP	E30KB231		E30KB281		
	Black	JOG FOR.	E30KB113		E30KB163		Green	Blank	E30KB300		E30KB350		
	Black	JOG REV.	E30KB114		E30KB164		Green	START	E30KB330		E30KB380		
Black	LOW	E30KB115		E30KB165		Yellow	Blank	E30KB400		E30KB450			
Black	LOWER	E30KB116		E30KB166		White	Blank	E30KB500		E30KB550			
Black	MAN	E30KB117		E30KB167		White	AUTO	E30KB501		—			
Black	ON	E30KB119		E30KB169		White	HAND	E30KB508		—			
Black	OPEN	E30KB120		E30KB170		Gray	Blank	E30KB600		E30KB650			
Black	OUT	E30KB121		E30KB171		Brown	Blank	E30KB700		E30KB750			
Black	RAISE	E30KB122		E30KB172		Orange	Blank	E30KB800		E30KB850			
Black	RESET	E30KB124		E30KB174		Blue	Blank	E30KB900		E30KB950			

Table 47-152. Type C Buttons with Standard Markings

	Color	Marking	Extended Button		Short Button		Color	Marking	Extended Button		Short Button		Button Application
			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	
 <p>Type C Extended Button for Use with Operators E30AF thru AK, AL thru AM and DG thru DM, Legend Characters 1/8 Inch (3.2 mm) High</p>	Black	Blank	E30KC100		E30KC150		Black	RESET	E30KC124		E30KC174		
	Black	AUTO	E30KC101		E30KC151		Black	REVERSE	E30KC125		E30KC175		
	Black	CLOSE	E30KC102		E30KC152		Black	RUN	E30KC126		E30KC176		
	Black	DOWN	E30KC103		E30KC153		Black	SLOW	E30KC128		E30KC178		
	Black	FAST	E30KC105		E30KC155		Black	START	E30KC130		E30KC180		
	Black	FORWARD	E30KC107		E30KC157		Black	TEST	E30KC132		E30KC182		
	Black	HAND	E30KC108		E30KC158		Black	UP	E30KC134		E30KC184		
	Black	HIGH	E30KC109		E30KC159		Red	Blank	E30KC200		E30KC250		
	Black	IN	E30KC110		E30KC160		Red	OFF	E30KC218		—		
	Black	INCH	E30KC111		E30KC161		Red	STOP	E30KC231		E30KC281		
	Black	JOG	E30KC112		E30KC162		Green	Blank	E30KC300		E30KC350		
	Black	JOG FOR.	E30KC113		E30KC163		Green	START	E30KC330		E30KC380		
Black	JOG REV.	E30KC114		E30KC164		Yellow	Blank	E30KC400		E30KC450			
Black	LOW	E30KC115		E30KC165		White	Blank	E30KC500		E30KC550			
Black	LOWER	E30KC116		E30KC166		Gray	Blank	E30KC600		E30KC650			
Black	MAN	E30KC117		E30KC167		Brown	Blank	E30KC700		E30KC750			
Black	ON	E30KC119		E30KC169		Orange	Blank	E30KC800		E30KC850			
Black	OPEN	E30KC120		E30KC170		Blue	Blank	E30KC900		E30KC950			
Black	OUT	E30KC121		E30KC171									
Black	RAISE	E30KC122		E30KC172									

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E30 Series, Components — Operating Buttons & Lenses

Operating Buttons and Lens Only

Standard Color Buttons and Lens Marking

BLACK LETTERING on — White, Amber, Yellow and Clear.

WHITE LETTERING on — Green, Red, Blue, Brown, Black, Orange and Gray.

For lenses with special markings or with standard markings but in a different color, refer to instructions on **Pages 47-109 – 47-111**.

Table 47-153. Type E Buttons with Standard Markings


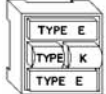
	Color	Marking	Extended Button		Color	Marking	Extended Button		Button Application
			Catalog Number	Price U.S. \$			Catalog Number	Price U.S. \$	
 <p><i>Type E Button for Use with Operators E30EA thru EM, FA thru FM and JA thru JM, Legend Characters 1/8 inch (3.2 mm) High</i></p>	Black	Blank	E30KE100		Black	RESET	E30KE124		
	Black	CLOSE	E30KE102		Black	REVERSE	E30KE125		
	Black	DOWN	E30KE103		Black	RUN	E30KE126		
	Black	FAST	E30KE105		Black	SLOW	E30KE128		
	Black	FORWARD	E30KE107		Black	START	E30KE130		
	Black	HIGH	E30KE109		Black	TEST	E30KE132		
	Black	IN	E30KE110		Black	UP	E30KE134		
	Black	INCH	E30KE111		Red	Blank	E30KE200		
	Black	JOG	E30KE112		Red	OFF	E30KE218		
	Black	JOG FOR.	E30KE113		Red	STOP	E30KE231		
	Black	JOG REV.	E30KE114		Green	Blank	E30KE300		
	Black	LOW	E30KE115		Green	START	E30KE330		
	Black	LOWER	E30KE116		Yellow	Blank	E30KE400		
	Black	ON	E30KE119		White	Blank	E30KE500		
	Black	OPEN	E30KE120		Gray	Blank	E30KE600		
	Black	OUT	E30KE121		Brown	Blank	E30KE700		
Black	PHASE	E30KE122		Orange	Blank	E30KE800			
				Blue	Blank	E30KE900			

Table 47-154. Type F Lenses with Standard Markings

	Color	Marking	Catalog Number	Price U.S. \$	Color	Marking	Catalog Number	Price U.S. \$	Lens Application
 <p><i>Type F Lens for Use with Operators E30BA thru BY, Legend Characters 3/16 inch (4.8 mm) High</i></p>	Red	Blank	E30KF10		Green	OFF	E30KF22		
	Red	MOTOR RUN	E30KF11		Amber	Blank	E30KF30		
	Red	ON	E30KF12		Blue	Blank	E30KF40		
	Red	POWER ON	E30KF13		Clear	Blank	E30KF50		
	Green	Blank	E30KF20		White	Blank	E30KF60		
	Green	MOTOR STOP	E30KF21						
	Green	MOTOR RUN	E30KF23						

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 Discount Symbol **1CD1C**

Operator Lens Only

Standard Color Buttons and Lens Marking

BLACK LETTERING on — White, Amber, Yellow and Clear.

WHITE LETTERING on — Green, Red, Blue, Brown, Black, Orange and Gray.

For lenses with special markings or with standard markings but in a different color, refer to instructions on **Pages 47-109 – 47-111**.

Table 47-155. Type G Lenses with Standard Markings



	Color	Marking	Catalog Number	Price U.S. \$	Color	Marking	Catalog Number	Price U.S. \$	Lens Application
 <p><i>Type G Lens for Use with Operators E30CA thru CM and DA thru DM, Legend Characters 3/16 inch (4.8 mm) High Except MOTOR RUN, POWER ON & MOTOR STOP are 1/8 inch (3.2 mm) High</i></p>	Red	Blank	E30KG10		Green	OFF	E30KG22		
	Red	MOTOR RUN	E30KG11		Green	READY	E30KG23		
	Red	ON	E30KG12		Amber	Blank	E30KG30		
	Red	POWER ON	E30KG13		Blue	Blank	E30KG40		
	Green	Blank	E30KG20		Clear	Blank	E30KG50		
	Green	MOTOR RUN	E30KG24		White	Blank	E30KG60		
	Green	MOTOR STOP	E30KG21						

Table 47-156. Type J Lenses with Standard Markings



	Color	Marking	Catalog Number	Price U.S. \$	Color	Marking	Catalog Number	Price U.S. \$	Lens Application
 <p><i>Type J Lens for Use with Operators E30EA thru EM, FA thru FM and GA thru GM, Legend Characters 1/8 (3.2 mm) High</i></p>	Red	Blank	E30KJ10		Green	OFF	E30KJ22		
	Red	MOTOR RUN	E30KJ11		Green	ON	E30KJ24		
	Red	ON	E30KJ12		Amber	Blank	E30KJ30		
	Red	POWER ON	E30KJ13		Blue	Blank	E30KJ40		
	Red	MOTOR STOP	E30KJ14		Clear	Blank	E30KJ50		
	Green	Blank	E30KJ20		White	Blank	E30KJ60		
	Green	MOTOR STOP	E30KJ21						
	Green	MOTOR RUN	E30KJ23						

Table 47-157. Type K Lenses with Standard Markings — Sold in pairs only


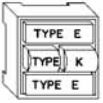

	Color		Marking		Catalog Number	Price U.S. \$	Lens Application
	Left Hand Lens	Right Hand Lens	Left Hand Lens	Right Hand Lens			
 <p><i>Type K Lenses for Use with Operators E30JA thru JW, Legend Characters 1/8 inch (3.2 mm) High</i></p>	Red	Red	ON	ON	E30KK12		
	Red	Green	ON	OFF			
	Red	Green	OFF	OFF			
	Green	Green	OFF	ON			
	Green	Red	OFF				
	Green	Red	OFF				

Table 47-158. Type K Lenses — Blank — Sold in pairs only

	Color		Catalog Number	Price U.S. \$	Color		Catalog Number	Price U.S. \$
	Left Hand Lens	Right Hand Lens			Left Hand Lens	Right Hand Lens		
	Red	Red	E30KK10		Blue	Red	E30KK41	
	Red	Green	E30KK11		Blue	Green	E30KK42	
	Red	Amber	E30KK17		Blue	Amber	E30KK43	
	Red	Blue	E30KK14		Blue	Blue	E30KK40	
	Red	Clear	E30KK15		Blue	Clear	KE30K45	
	Red	White	E30KK16		Blue	White	E30KK46	
	Green	Red	E30KK21		Clear	Red	E30KK51	
	Green	Green	E30KK20		Clear	Green	E30KK52	
	Green	Amber	E30KK27		Clear	Amber	E30KK53	
	Green	Blue	E30KK24		Clear	Blue	E30KK54	
	Green	Clear	E30KK25		Clear	Clear	E30KK50	
	Green	White	E30KK26		Clear	White	E30KK56	
	Amber	Red	E30KK31		White	Red	E30KK61	
	Amber	Green	E30KK32		White	Green	E30KK62	
	Amber	Amber	E30KK30		White	Amber	E30KK63	
	Amber	Blue	E30KK34		White	Blue	E30KK64	
	Amber	Clear	E30KK35		White	Clear	E30KK65	
	Amber	White	E30KK36		White	White	E30KK60	

E30 Series, Components — Contact Blocks

Contact Blocks

Standard Contact Blocks — Molded, phenolic construction. Enclosed silver contacts with reliability “nibs” that improve the reliability of switching performance under dry circuit, corrosive atmosphere and fine dust conditions. For more extreme conditions, the Logic Level contact blocks described below are recommended.

Table 47-159. Standard Contact Block Ratings — Maximum Amperes

Current	AC Volts A600				DC Volts P300		
	120	240	480	600	24/28	125	250
Make & Emergency Inter. Capacity	60	30	15	12	5.73	1.1	0.55
Normal Load Break	6	3	1.5	1.2	5.73	1.1	0.55
Continuous Current	10						

Logic Level Contact Blocks — Feature palladium contacts. Palladium, which is more inert than gold, is well suited for voltages and currents approaching zero. When mounted in an enclosure rated for highly corrosive environments, logic level contact blocks can be used where exposure to chemicals may cause failure to other types of materials.

Table 47-160. Maximum Ratings for Logic Level and Hostile Atmosphere Application ①

Maximum Amperes	0.5A ①
Maximum Volts	120V AC/DC

① Logic level contact blocks are UL A600/P500 rated per table above.

Mounting Limitations

Figure 47-83 and **Table 47-161** give the contact block mounting limitations for Type E30 pushbutton and combination pushbutton and light operators. Mounting positions 1 thru 8 indicate single depth contact blocks. Each of these positions can represent either a single circuit 600 volt block or a 2-circuit 120 volt block. The 2-circuit 600 volt block requires two of the numbered positions shown.

Table 47-161. Mounting Positions

Catalog Number of Operator	Contact Blocks Can Be Mounted in Positions Listed Below	
	Upper Stack	Lower Stack
E30AA thru E30AM ②	1-2-3-4	5-6-7-8
E30BA thru E30CM	None	None
E30DA thru E30DM	None	5-6-7-8
E30EA thru E30GM	2-3-4	6-7-8
E30JA thru E30JM	3-4	7-8

② Except Operator E30AD, AJ or AK which will accommodate contact blocks 1, 2, 5 and 6 only. (See figure below.)

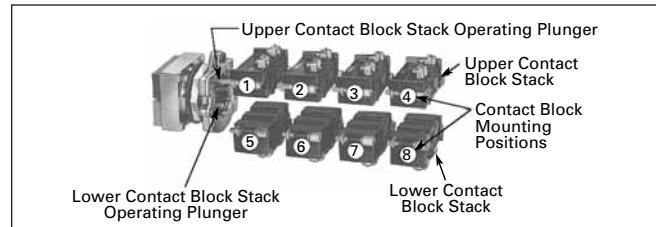


Figure 47-83. Mounting Positions

Table 47-162. Contact Block Selection Table

Contact Block Type ⑥	Circuit	Pressure Terminals				Quick Connect Terminals ⑤	
		STANDARD		LOGIC LEVEL		STANDARD	
		Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$
	1NO	600 Volt AC, 250 Volt DC — Single Circuit					
	1NC	E30KLA1		E30KLAE1		E30KLB1	
 <i>Screw Terminals</i>	1NO-1NC	600 Volt AC, 250 Volt DC — Two Circuit					
	2NO	E30KLA3		E30KLAE3		E30KLB3	
	2NC	E30KLA4		E30KLAE4		E30KLB4	
	Special Contact Operation	E30KLA6 ③		—		E30KLB6 ③	
	1NO-1NC Overlapping						
	2NO (One Early Closing)	E30KLA7 ③		—		E30KLB7 ③	
	2NC (One Late Opening)	E30KLA8		—		E30KLB8	
 <i>Quick Connect Terminals</i>	1NO-1NC	120 Volt AC Only — Two Circuit					
	1NO-1NC	E30KLA9 ④		—		E30KLB9 ④	

③ Do not use with maintained operators.
 ④ Contacts must be same polarity.
 ⑤ Supplied with non-stacking screws. Limited to 2 contact blocks mounted in positions 1 and 5.
 ⑥ Individually boxed contact blocks master packed 10 per carton.