

**E30 Series**

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**Product Description**

The E30 industrial pushbutton and indicating light line from Eaton's electrical business features a wide selection of square, multifunction operators which conveniently mount in a standard 30.5 mm [1-13/64 inches] diameter panel hole. Up to six input and indicating functions can be grouped into a single operating head, saving valuable panel space. Attractive square operator styling, coupled with custom legending of colored buttons and lenses and many special function accessories, makes E30 components ideally suited for use on control consoles and for a variety of industrial OEM applications.

**Features**

Type E30 control units consist of a basic operator with one or more buttons and lenses and contact block selection dependent on the specific operator configuration.

- **Pushbutton operators** will accommodate up to four single depth stackable contact blocks behind each operating button, up to eight circuits maximum.

- **Indicating lights** are supplied complete with either a transformer light unit up to 600V AC supply line voltage or full voltage light unit up to 120V AC/DC supply line voltage.
- **Combination pushbutton with indicating light** operators are supplied complete with a transformer or full voltage unit. Contact blocks must be ordered separately, up to four circuits maximum.

**Die Cast Construction**

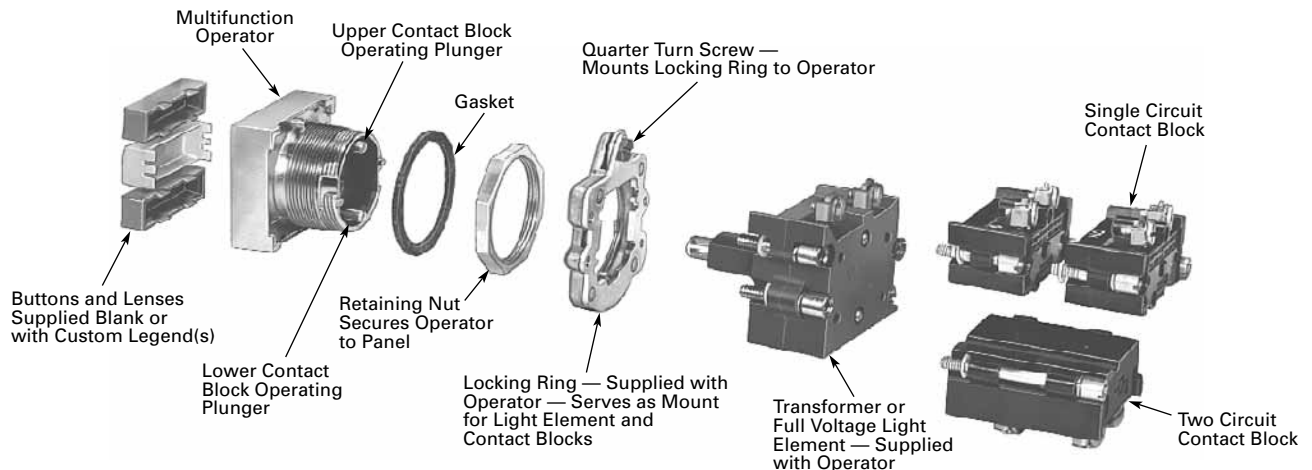
Each operator has high pressure type seals to prevent the passage of oil and other contaminants through the operator into the contact structure or panel interior. Each operator uses a Buna N cork gasket between the mounting flange on the operator and the panel to maintain oiltightness.

**Standards and Certifications**

- UL Listed — File No. E131568
- CSA Certified — File No. LR68551

**Ingress Protection**

- Single and Dual Indicating Lights
  - UL (NEMA) Type 1, 2, 3, 3R, 3S, 4, 4X, 12, 13
- All Other Operators
  - UL (NEMA) Type 3, 3R, 4, 4X, 12, 13



**E30 Series**

## Technical Data and Specifications

### Climate Conditions

- Operating: -20° to 150°F (-29° to 65°C)

### Terminals

#### Light Units

- Terminals are saddle clamp type for 2 stranded or solid wires up to 12 AWG (4.0 mm<sup>2</sup>)
- Torque — 7 lb-in (0.8 Nm)

#### Contact Block

- Terminals are saddle clamp type for 2 stranded or solid wires up to 12 AWG (4.0 mm<sup>2</sup>)
- Torque — 7 lb-in (0.8 Nm)

### Material

- Operator is a zinc base die casting with a copper-nickel-chrome plated finish. Withstands the 200 hr. salt spray test in accordance with MIL Spec. QQ-M-151A and NEMA 4X testing. All internal parts, including shafts, washers and springs, are made of stainless steel. The buttons and lenses are made of colorfast, wear resistant, molded acetal resin. The contact blocks are made of molded, heat resistant, mineral filled phenolic. The contact block plungers are molded of nylon filled phenolic. The contacts are silver.

## Electrical Ratings

Table 47-138. Contact Block

Meet or Exceed NEMA Contact Rating Designation A600 and P300							
Description	A600 (AC)				P300 (DC)		
	120V	240V	480V	600V	24/28V	125V	250V
Make and Emergency Interrupting Capacity (Amps)	60	30	15	12	5.73	1.1	0.55
Normal Load Break (Amps)	6	3	1.5	1.2	5.73	1.1	0.55
Continuous Amperes	10				5		

- UL A600/P300 nominal connect 10A
- 1NO, 1NC, 2NO, 2NC, 1NO-1NC, early make, late break and overlapping configurations
- Mechanical positive drive operation on NC contacts
- Palladium alloy contact for logic level or highly corrosive environments

### Reliability Nibs

These nibs combine a scrubbing action with high pressure density when the contacts are closed. They push through particles and films found on contact surfaces in industrial environments. The reliability nibs self-adjust to the application — dry circuit, normal or heavy-duty.

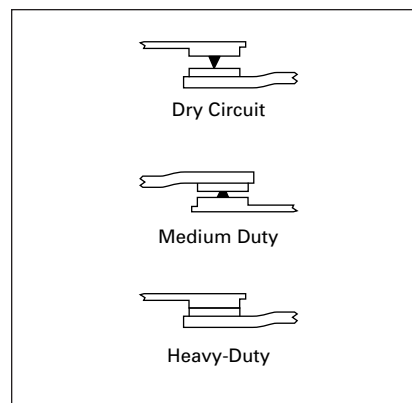


Figure 47-82. Reliability Nibs

### Maximum Ratings for Logic Level and Hostile Atmosphere Applications

- Maximum amperes: 0.5A
- Maximum volts: 120V AC/DC

### Light Unit

- Bulbs — average life:
  - Transformer type: 20,000 hrs.
  - Resistor/direct voltage type: 2,500 hrs. min. @ rated voltage
  - LED: 60,000 to 100,000 hrs.

**Product Selection — Operators**

**When Ordering a Complete E30 Control Unit Specify**



- Catalog Number of Operator
- Catalog Number of Button(s)
- Catalog Number of Contact Block(s)
- Catalog Number of Accessories (if required)

**Ordering Example:**



E30AB  
 E30KB130 "START"  
 E30KB231 "STOP"  
 E30KLA1 1NO  
 E30KLA2 1NC

**Square Multifunction Operators**

**Table 47-139. Single Button Operator/without Button — Order Buttons Separately — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13**

	Operation	Special Features	Catalog Number	Price U.S. \$	Button Type
 <p><b>Single Button Operator shown with Extended Button</b></p>	Momentary	—	E30AA		<p><b>Button Type Required</b></p>  <p>Order from Table on Page 47-105</p>


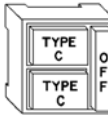
**Table 47-140. Two Button Operator/without Buttons — Order Buttons Separately — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13**

	Operation		Special Features	Catalog Number	Price U.S. \$	Button Type
	Top Button	Bottom Button				
 <p><b>Two Button Operator shown with Extended Buttons</b></p>	Momentary	Momentary	—	E30AB	<p><b>Button Types Required</b></p>  <p>Order from Table on Page 47-105</p>	
	Momentary	Momentary	With Mechanical Interlock	E30AC		
	Maintained (All Contacts)	Release (All Contacts)		E30AD <sup>①</sup>		
	Maintained (All Contacts)	Release (All Contacts)	With Mechanical Interlock	E30AP <sup>①②</sup>		

<sup>①</sup> Limited to two single circuit, one double circuit 600V or two 120V (E30KLA9) contact blocks behind each button.

<sup>②</sup> Buttons are interlocked so that one of the two is maintained at all times. Depressing the other button releases the maintained button and maintains the depressed button.

**Table 47-141. Two Button Operator with Long (OFF) Release Bar — Includes OFF Bar/Button — Order Other Buttons Separately — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13**

	Operation		Special Features	Catalog Number	Price U.S. \$	Button Type
	Top Button	Bottom Button				
 <p><b>Two Button Operator shown with Long Release Bar</b></p>	Maintained	Maintained	—	E30AF	<p><b>Button Types Required <sup>③</sup></b></p>  <p>Order from Table on Page 47-105</p>	
	Maintained	Maintained	With Mechanical Interlock	E30AG		
	Maintained	Momentary	With Mechanical Interlock	E30AH		
	Maintained (All Contacts)	Maintained (Bottom Contacts Only)	Top Button Operates Both Top and Bottom Contacts	E30AK <sup>④</sup>		

<sup>③</sup> Operators are supplied as standard with red extended 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 **E30KR100**.





<sup>④</sup> Limited to two single circuit, one double circuit 600V or two 120V (E30KLA9) contact blocks behind each button.

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**E30 Series, Operators & Indicating Lights**


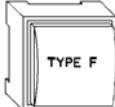
**Square Multifunction Operators and Indicating Lights**

**Table 47-142. Two Button Operator with (OFF) Release — Includes OFF Bar/Button(s) — Order Other Buttons Separately — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13**

	Operation		Special Features	Catalog Number	Price U.S. \$	Button Type
	Top Button	Bottom Button				
 <p><b>Two Button Operator shown with Release Bar for Top Button</b></p>	Maintained	Momentary	Release Bar for Top Button	E30AL		<b>Button Types Required</b> <sup>①</sup>  Order from Table on <b>Page 47-105</b>
 <p><b>Two Button Operator shown with Individual Release Bars for Each Button</b></p>	Maintained	Maintained	Individual Release Bars for Each Button	E30AN		<b>Button Types Required</b> <sup>①</sup>  Order from Table on <b>Page 47-105</b>
	Maintained with Interlock	Maintained with Interlock	Individual Release Bars for Each Button	E30AM		


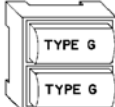
<sup>①</sup> Operators are supplied as standard with red extended release bar(s) marked "OFF" as shown in sketch. For other colors or markings, contact your nearest Eaton Distributor or call our Customer Service Center 1-800-356-1243. For replacement of standard red release bar, order **E30KR101**.

**Table 47-143. Single Indicating Light Unit/without Lens — Order Lenses Separately — UL (NEMA) Type 3, 3R, 3S, 4, 4X, 12, 13**

	Type of Light Element								Lens Type
	Transformer (60/50 Hertz AC)				Full Voltage (60/50 Hertz AC or DC)				
	Voltage	Lamp Number <sup>②</sup>	Catalog Number	Price U.S. \$	Voltage	Lamp Number <sup>②</sup>	Catalog Number	Price U.S. \$	
 <p><b>Single Indicating Light Unit shown with Lens</b></p>	120	6PSB	E30BA		24 120	24PSB 120PSB	E30BJ E30BM		<b>Lens Type Required</b>  Order from Table on <b>Page 47-106</b>

<sup>②</sup> Light units will also accept LED lamps. For LED Part Numbers, see **Table 47-149** on **Page 47-104**.

**Table 47-144. Dual Indicating Light Unit/without Lenses — Order Lenses Separately — UL (NEMA) Type 3, 3R, 3S, 4, 4X, 12, 13**


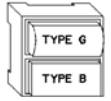
	Type of Light Element								Lens Type
	Transformer (60/50 Hertz AC)				Full Voltage (60/50 Hertz AC or DC)				
	Voltage	Lamp Number <sup>③</sup>	Catalog Number	Price U.S. \$	Voltage	Lamp Number <sup>③</sup>	Catalog Number	Price U.S. \$	
 <p><b>Dual Indicating Light Unit shown with Lens</b></p>	120	6PSB	E30CA		24 120	24PSB 120PSB	E30CJ E30CM		<b>Lens Type Required</b>  Order from Table on <b>Page 47-107</b>

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

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 Discount Symbol ..... **1CD1C**


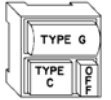
**Square Multifunction Operators and Indicating Lights (Continued)**

**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><i>Single Button Operator and Indicating Light shown with Button &amp; Lens</i></p>	Momentary	120	6PSB	E30DA		24	24PSB	E30DX3 E30DF		 <p>Order from Tables on Pages 47-105 and 47-107</p>
						120	120PSB			

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


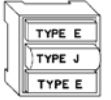
**Table 47-146. Single Button Operator with (OFF) Release Bar and Indicating Light — Includes OFF Bar/Button — Order Other Button and Lens Separately — UL (NEMA) Type 3, 3R, 4, 4X, 12, 13**

	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><i>Single Button Operator with Release Bar and Indicating Light shown with Button &amp; Lens</i></p>	Maintained	120	6PSB	E30DG		24	24PSB	E30DX13 E30DM		 <p>Order from Tables on Pages 47-105 and 47-107</p>
						120	120PSB			

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><i>Two Button Operator with Indicating Light shown with Button &amp; Lens</i></p>	Momentary	120	6PSB	E30EA		24	24PSB	E30EX3 E30EF		 <p>Order from Tables on Pages 47-106 – 47-107</p>
	Momentary with Interlock	120	6PSB	E30EG		24	24PSB			



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

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 Discount Symbol . . . . . 1CD1C

**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><i>Two Button Operator with Dual Indicating Lights shown with Button &amp; Lens</i></p>	Momentary	120	6PSB	E30JA		24	24PSB	E30JX3		<p><b>Button and Lens Types Required</b></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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 Discount Symbol ..... 1CD1C



**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. \$	
 Type A Extended Button for Use with Operator E30AA, Legend Characters 3/16 Inch (4.8 mm) High	Black	Blank	E30KA100		E30KA150		Green	START	E30KA330		E30KA380		
	Black	START	E30KA200		E30KA180		Yellow	Blank	E30KA400		E30KA450		
Red	Blank	E30KA204		E30KA250		White	Blank	E30KA500		E30KA550			
Red	EMERG. STOP	E30KA218		—		Gray	Blank	E30KA600		E30KA650			
Red	OFF			E30KA268		Brown	Blank	E30KA700		E30KA750			
Red	STOP			E30KA281		Black	Blank						
Green	Blank	E30KA231		E30KA350		Orange	Blank	E30KA800		E30KA850			
	Blank	E30KA300				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. \$	
 Type B Extended Button for Use with Operators E30AB thru AE, AL and DA thru DF, Legend Characters 3/16 Inch (4.8 mm) High	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	EMERG. 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. \$	
 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	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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 Blank Lens/Buttons  
 with Non-standard  
 Markings . . . . . Pages 47-109 – 47-111  
 Dimensions . . . . . Page 47-114  
 Discount Symbol . . . . . 1CD1C

**Operating Buttons and Lens Only**


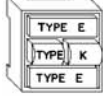
**Standard Color Buttons and Lens Marking**

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

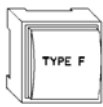
**WHITE LETTERING** on — Green, Red, Blue, Brown, Black, Orange and Gray.

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	<b>E30KE100</b>		Black	RESET	<b>E30KE124</b>		
	Black	CLOSE	<b>E30KE102</b>		Black	REVERSE	<b>E30KE125</b>		
	Black	DOWN	<b>E30KE103</b>		Black	RUN	<b>E30KE126</b>		
	Black	FAST	<b>E30KE105</b>		Black	SLOW	<b>E30KE128</b>		
	Black	FORWARD	<b>E30KE107</b>		Black	START	<b>E30KE130</b>		
	Black	HIGH	<b>E30KE109</b>		Black	TEST UP	<b>E30KE132</b>		
	Black	IN	<b>E30KE110</b>		Black	Blank	<b>E30KE134</b>		
	Black	INCH	<b>E30KE111</b>		Red	Blank	<b>E30KE200</b>		
	Black	JOG	<b>E30KE112</b>		Red	OFF	<b>E30KE218</b>		
	Black	JOG FOR.	<b>E30KE113</b>		Red	STOP	<b>E30KE231</b>		
	Black	JOG REV.	<b>E30KE114</b>		Green	Blank	<b>E30KE300</b>		
	Black	LOW	<b>E30KE115</b>		Green	START	<b>E30KE330</b>		
	Black	LOWER	<b>E30KE116</b>		Yellow	Blank	<b>E30KE400</b>		
	Black	ON	<b>E30KE119</b>		White	Blank	<b>E30KE500</b>		
	Black	OPEN	<b>E30KE120</b>		Gray	Blank	<b>E30KE600</b>		
	Black	OUT PHASE	<b>E30KE121</b>		Brown	Blank	<b>E30KE700</b>		
Black		<b>E30KE122</b>		Orange	Blank	<b>E30KE800</b>			
				Blue	Blank	<b>E30KE900</b>			

**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	<b>E30KF10</b>		Green	OFF	<b>E30KF22</b>		
	Red	MOTOR RUN	<b>E30KF11</b>		Amber	Blank	<b>E30KF30</b>		
	Red	ON	<b>E30KF12</b>		Blue	Blank	<b>E30KF40</b>		
	Red	POWER ON	<b>E30KF13</b>		Clear	Blank	<b>E30KF50</b>		
	Green	Blank	<b>E30KF20</b>		White	Blank	<b>E30KF60</b>		
	Green	MOTOR STOP	<b>E30KF21</b>						
	Green	MOTOR RUN	<b>E30KF23</b>						

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 Discount Symbol ..... **1CD1C**



**Operator Lens Only**


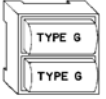
**Standard Color Buttons and Lens Marking**

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


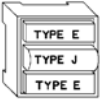
**WHITE LETTERING** on — Green, Red, Blue, Brown, Black, Orange and Gray.

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


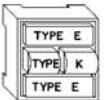
**Table 47-155. Type G Lenses with Standard Markings**

	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 &amp; MOTOR STOP are 1/8 inch (3.2 mm) High</i></p>	Red	Blank	<b>E30KG10</b>		Green	OFF	<b>E30KG22</b>		
	Red	MOTOR RUN	<b>E30KG11</b>		Green	READY	<b>E30KG23</b>		
	Red	ON	<b>E30KG12</b>		Amber	Blank	<b>E30KG30</b>		
	Red	POWER ON	<b>E30KG13</b>		Blue	Blank	<b>E30KG40</b>		
	Green	Blank	<b>E30KG20</b>		Clear	Blank	<b>E30KG50</b>		
	Green	MOTOR RUN	<b>E30KG24</b>		White	Blank	<b>E30KG60</b>		
	Green	MOTOR STOP	<b>E30KG21</b>						


**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	<b>E30KJ10</b>		Green	OFF	<b>E30KJ22</b>		
	Red	MOTOR RUN	<b>E30KJ11</b>		Green	ON	<b>E30KJ24</b>		
	Red	ON	<b>E30KJ12</b>		Amber	Blank	<b>E30KJ30</b>		
	Red	POWER ON	<b>E30KJ13</b>		Blue	Blank	<b>E30KJ40</b>		
	Red	MOTOR STOP	<b>E30KJ14</b>		Clear	Blank	<b>E30KJ50</b>		
	Green	Blank	<b>E30KJ20</b>		White	Blank	<b>E30KJ60</b>		
	Green	MOTOR STOP	<b>E30KJ21</b>						
	Green	MOTOR RUN	<b>E30KJ23</b>						

**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	<b>E30KK12</b>		
	Red	Green	ON	OFF			
	Green	Green	OFF	OFF			
	Green	Red	OFF	ON			

**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	<b>E30KK10</b>		Blue	Red	<b>E30KK41</b>	
	Red	Green	<b>E30KK11</b>		Blue	Green	<b>E30KK42</b>	
	Red	Amber	<b>E30KK17</b>		Blue	Amber	<b>E30KK43</b>	
	Red	Blue	<b>E30KK14</b>		Blue	Blue	<b>E30KK40</b>	
	Red	Clear	<b>E30KK15</b>		Blue	Clear	<b>KE30K45</b>	
	Red	White	<b>E30KK16</b>		Blue	White	<b>E30KK46</b>	
	Green	Red	<b>E30KK21</b>		Clear	Red	<b>E30KK51</b>	
	Green	Green	<b>E30KK20</b>		Clear	Green	<b>E30KK52</b>	
	Green	Amber	<b>E30KK27</b>		Clear	Amber	<b>E30KK53</b>	
	Green	Blue	<b>E30KK24</b>		Clear	Blue	<b>E30KK54</b>	
	Green	Clear	<b>E30KK25</b>		Clear	Clear	<b>E30KK50</b>	
	Green	White	<b>E30KK26</b>		Clear	White	<b>E30KK56</b>	
	Amber	Red	<b>E30KK31</b>		White	Red	<b>E30KK61</b>	
	Amber	Green	<b>E30KK32</b>		White	Green	<b>E30KK62</b>	
	Amber	Amber	<b>E30KK30</b>		White	Amber	<b>E30KK63</b>	
	Amber	Blue	<b>E30KK34</b>		White	Blue	<b>E30KK64</b>	
	Amber	Clear	<b>E30KK35</b>		White	Clear	<b>E30KK65</b>	
	Amber	White	<b>E30KK36</b>		White	White	<b>E30KK60</b>	

## 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.

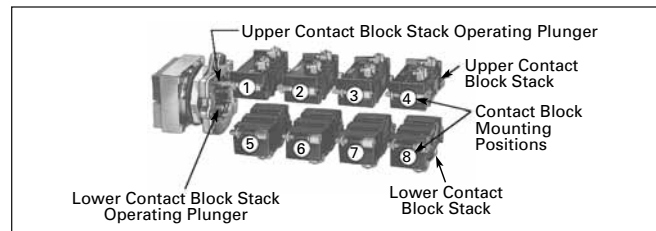
### Mounting Limitations

**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	
	1NO-1NC	600 Volt AC, 250 Volt DC — Two Circuit					
	2NO	E30KLA3		E30KLAE3		E30KLB3	
	2NC	E30KLA4		E30KLAE4		E30KLB4	
	<b>Special Contact Operation</b>	E30KLA6 ③		—		E30KLB6 ③	
	1NO-1NC Overlapping						
	2NO (One Early Closing)	E30KLA7 ③		—		E30KLB7 ③	
2NC (One Late Opening)	E30KLA8		—		E30KLB8		
	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.

Discount Symbol ..... 1CD1C

**E30 Series, Options — Legend Plates**

**Options**

**Markings and Legend Plates**

**Buttons or Lenses with Non-standard Horizontal Markings**

Markings not listed as STANDARD MARKINGS below are considered non-standard. If more than one marking is required on a button or lens, order non-standard markings.

**Ordering Instructions**

- Specify Catalog Number of blank button or lens of desired color, plus Suffix "STAMP" for Non-standard or "STD" for Standard markings in Order

Notes. See Pages 47-105 – 47-107.

- Specify size, legend desired and location in Order Notes by alphas as shown in example.
- Do not exceed maximum number of legend characters per line.

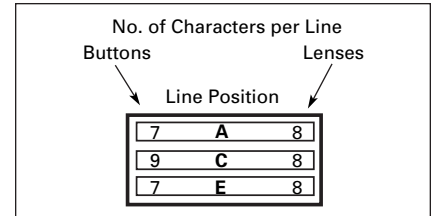
**Ordering Example:**

Green Type B button to be marked with non-standard legend "ALL ELEVATORS DOWN."

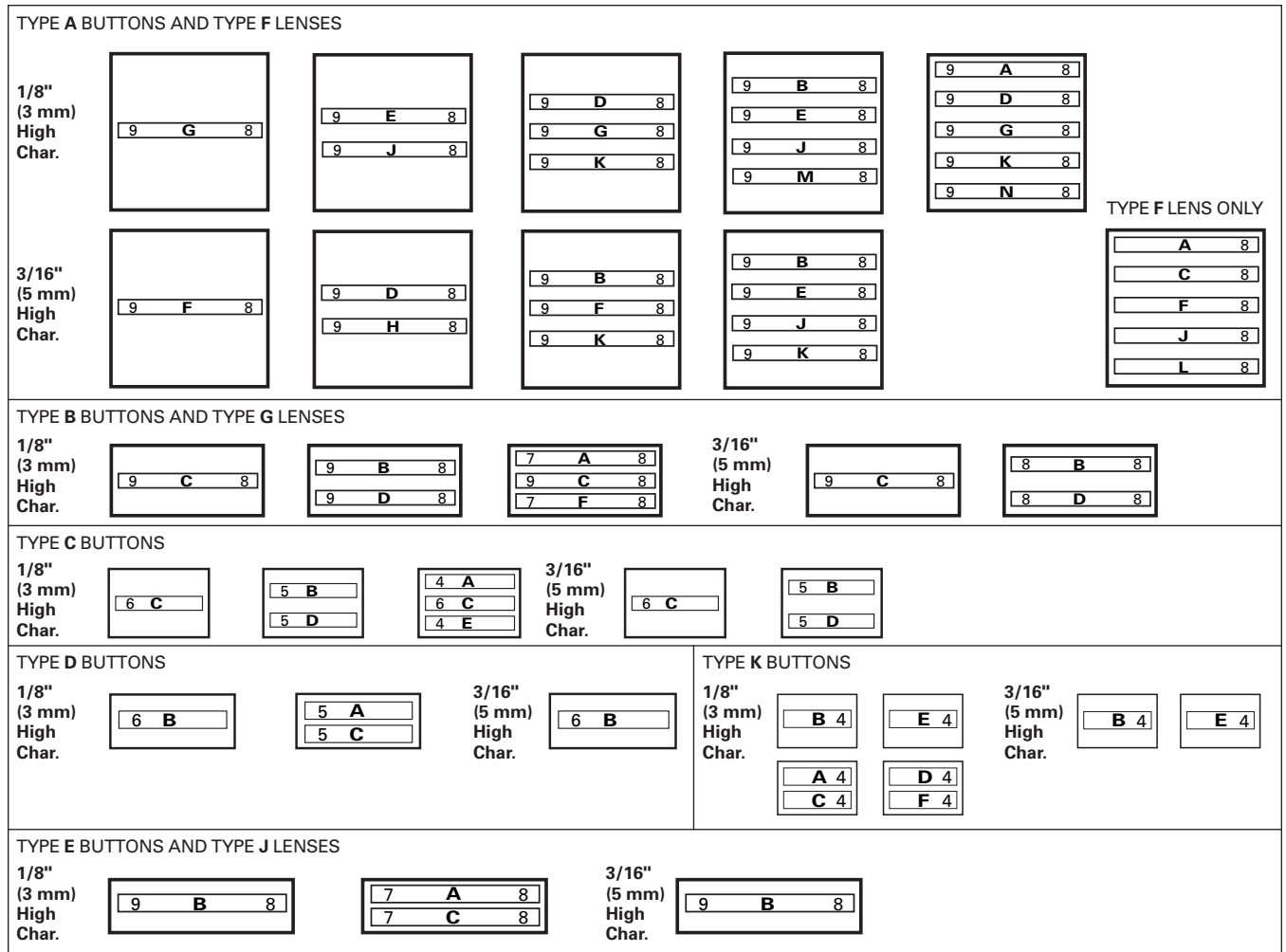
Catalog No.: **E30KB300STAMP**  
 Letter Size: 1/8"  
 Pos. A — ALL  
 Pos. C — ELEVATORS  
 Pos. F — DOWN

**Table 47-163. Button Markings**

Description	Price Each U.S. \$	Price Per Pair U.S. \$
All Types except K Type K		



**Figure 47-84. How to Use the Legend Location Figure**



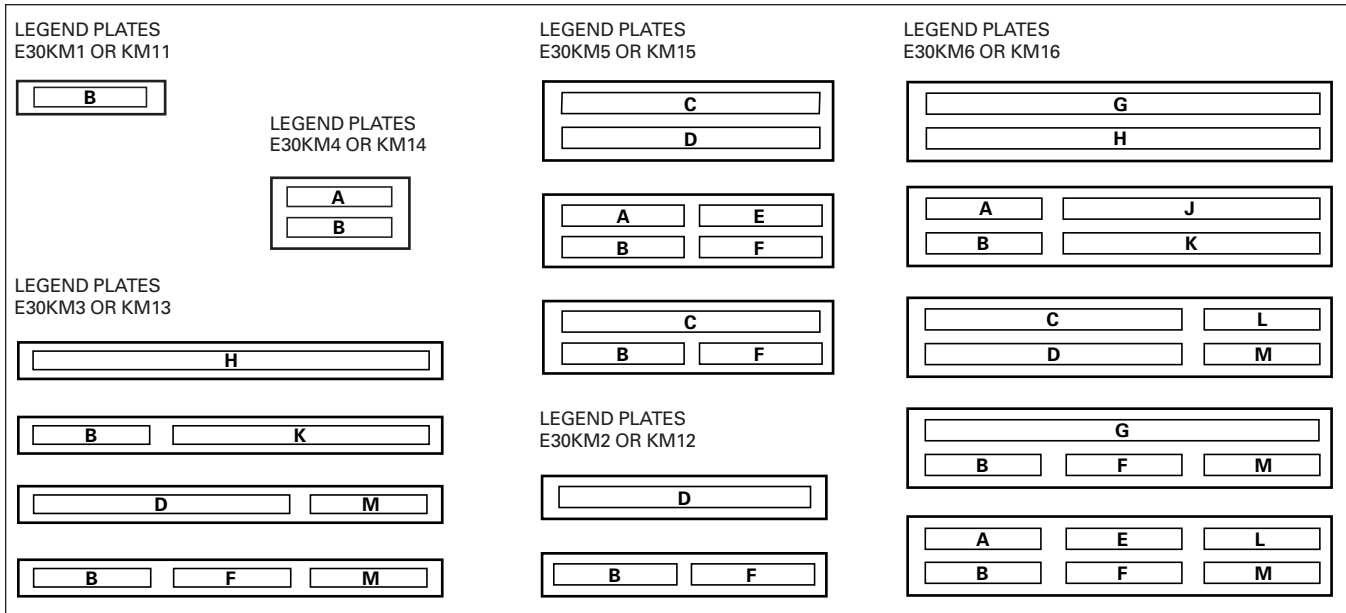
**Figure 47-85. Legend Locations**

**Table 47-164. Standard Markings**

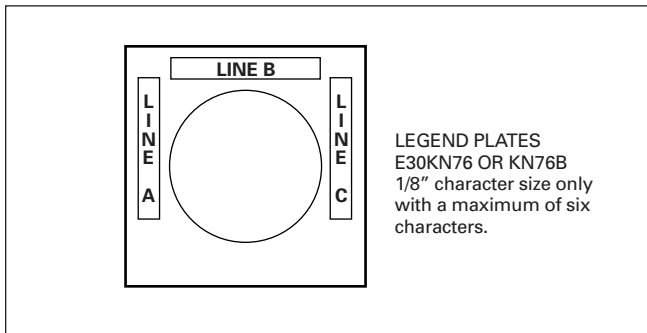
AUTO	EMERG. STOP	HAND	INCH	JOG REV.	MAN.	OPEN	RESET	SLOW	TEST	MOTOR STOP
CLOSE	FAST	HIGH	JOG	LOW	OFF	OUT	REVERSE	START	UP	POWER ON
DOWN	FORWARD	IN	JOG FOR.	LOWER	ON	RAISE	RUN	STOP	MOTOR RUN	READY

Discount Symbol ..... **1CD1C**

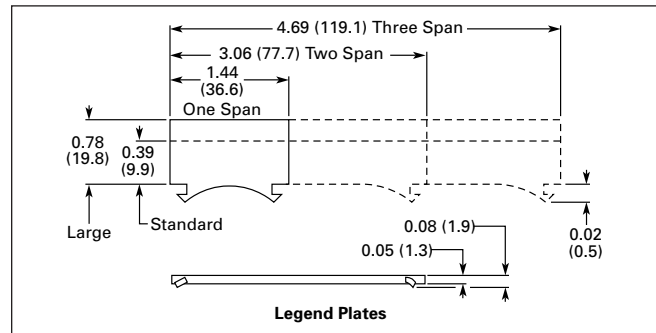
**E30 Series, Options — Legend Plates**



**Figure 47-86. Legend Arrangements and Legend Locations**



**Figure 47-87. Legend Plates E30KN76 or KN76B**



**Figure 47-88. Approximate Dimensions in Inches (mm)**

**Table 47-165. Maximum Number and Size of Permissible Legend Characters of Custom Stamped Legend Plates**

Type	No. of Lines	Size and Maximum Number of Characters Per Line								
		One Span			Two Span			Three Span		
		3/32" (2.5 mm)	1/8" (3 mm)	3/16" (5 mm)	3/32" (2.5 mm)	1/8" (3 mm)	3/16" (5 mm)	3/32" (2.5 mm)	1/8" (3 mm)	3/16" (5 mm)
Standard	1	13	10	10	30	22	22	47	34	34
Large	1	13	10	10	30	23	23	47	36	36
	2	13	10	10	30	23	23	47	36	36

CHARACTERS AVAILABLE FOR NON-STANDARD MARKINGS  
 3/32 Inch (2.5 mm) — 1/8 Inch (3 mm) — 3/16 Inch (5 mm)

**A B C D E F G H I J K L M N O P Q R S T U V W X Y Z . / - , 1 2 3 4 5 6 7 8 9 0**

**Buttons or Lenses with Non-standard Vertical Markings**

**Ordering Instructions**

- Specify Catalog Number of blank button or lens of desired color, selected from listings on **Pages 47-105 – 47-107**.
- Specify size, legend desired, location and state “vertically marked” in Order Notes.

**Note:** Specify either 1/8 or 3/16 inch (3.2 or 4.8 mm) character height. Do not exceed maximum number of characters as outlined in table below.

**Ordering Example:**

Green Type K button to be marked with “RUN” “ON.”

Description	Price Ea.
Catalog No.: <b>E30KK20STAMP</b> Letter Size: 3/16 inch (4.8 mm) Vertically Marked Pos. B — RUN Pos. E — ON	

**Table 47-166. Maximum Number of Characters**

Description	Type	Maximum Number of Characters	
		1/8 Inch (3.2 mm)	3/16 Inch (4.8 mm)
Buttons	A	7	5
	B	7	5
	C	4	3
	D	5	3
	E	7	5
Lenses	F	7	5
	G	7	5
	J	7	5
	K	3	2

**Legend Plates**

Legend plates for Type E30 Compact Pushbutton and Indicating Light operators hook directly onto the operator and are clamped in place when the operator locking nut behind the panel is secured.

Two and three span plates are designed for use where two or more operators are mounted adjacent to each other **on minimum horizontal mounting centers**. These legend plates mount in the same manner as single span units.

**Blank Legend Plates and Legend Plates with Markings**



**When Ordering Legend Plates with Markings**

- Catalog Number of Blank Legend Plate
- Insert the following in Order Notes:
  - Legends Required
  - Size of Characters — 3/32, 1/8, 3/16 inch (2.4, 3.2, 4.8 mm)
  - Positions of legends on one line Standard and two line Large legend plates by alphas as shown in sketches on following page.

**Ordering Example:**

Three span legend plate to be marked “MASTER CONTROL”, “STATION A” and “STATION B.”


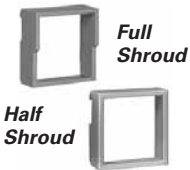








Description	Price Ea.
Catalog No: <b>E30KM3STAMP</b> Letter Size: 1/8 inch (3.2 mm) Pos. C — MASTER CONTROL Pos. B — STATION A Pos. F — STATION B	

**Table 47-167. Blank Legend Plate**

Type	One Span	
	Catalog Number	Price U.S. \$
<b>Black</b>		
Standard	<b>E30KM1</b>	
Large	<b>E30KM4</b>	

### Accessories

Table 47-168. Accessories

Description	Color/Type	Catalog Number	Price U.S. \$
	Black Red Green Yellow White Gray Orange Blue Brown	E30KR1 E30KR2 E30KR3 E30KR4 E30KR5 E30KR6 E30KR8 E30KR9 E30KR10	
	Full Shroud (Gray) Half Shroud (Gray)	E30KT6 E30KT7	
	Red with White Slide Red with Clear Slide	E30KR31 E30KR32	
		E30KR30	
	Short Button Extended Button	E30KT1 E30KT2	
		E30KT3 ①	
	Gray Enameled Stainless Steel	E30KT4 E30KT5	
		E30KV1	
		E22CW	
		E30KV2	

① Color coordinating collars, padlock attachments or legend plates cannot be used with operators equipped with a transparent boot.

**Replacement Parts**

**Table 47-169. Replacement Light Units for E30 Components**

Voltage AC and DC	Part Numbers — Receptacles without Lamps									
	Single Indicating Light	Price U.S. \$	Dual Indicating Light	Price U.S. \$	Single Light Single Pushbutton	Price U.S. \$	Single Light Dual Pushbutton	Price U.S. \$	Dual Light Dual Pushbutton	Price U.S. \$
<b>Full Voltage Type</b>										
6V	57-2579-3A		57-2568A		57-2568A		57-2579-3A		57-2567A	
12V	57-2579-3A		57-2568A		57-2568A		57-2579-3A		57-2567A	
18/24V	57-2579-3A		57-2568A		57-2568A		57-2579-3A		57-2567A	
28V	57-2579-3A		57-2568A		57-2568A		57-2579-3A		57-2567A	
32V	57-2579-3A		57-2568-2A		57-2568-2A		—		57-2567A	
48V	57-2579-3A		57-2568A		57-2568A		57-2579-3A		57-2567A	
120V	57-2579-3A		57-2568A		57-2568A		57-2579-3A		57-2567A	
<b>Transformer Type</b>										
120V	42-2672A		42-2663A		42-2663A		42-2671A		42-2664A	
208V	42-2672-2A		42-2663-2A		42-2663-2A		42-2671-2A		42-2664-2A	
240V	42-2672-3A		42-2663-3A		42-2663-3A		42-2671-3A		42-2664-3A	
380V	42-2672-4A		42-2663-4A		42-2663-4A		42-2671-4A		42-2664-4A	
480V	42-2672-5A		42-2663-5A		42-2663-5A		42-2671-5A		42-2664-5A	
600V	42-2672-6A		42-2663-6A		42-2663-6A		42-2671-6A		42-2664-6A	
<b>Description and Part Numbers — Related Parts</b>										
Inner Lens	28-1008		28-1010		28-1010		28-1010		28-1010	
Retaining Nut	15-1885		15-1885		15-1885		15-1885		15-1885	
Gasket	16-2092		16-2092		16-2092		16-2092		16-2092	
Locking Ring	52-1116		52-1116		52-1116		52-1116		52-1116	

**Table 47-170. Replacement Lamps for E30 Illuminated Operators**

Mfg. Lamp Type	Voltage	Base Style	Application	Part Number	Price U.S. \$
6PSB	6V	T2 Slide	E30 Transformer and Full Voltage	28-1022	
12PSB	12V	T2 Slide	E30 Full Voltage	28-1025	
24PSB	24V	T2 Slide	E30 Full Voltage	28-1026	
28PSB	28V	T2 Slide	E30 Full Voltage	28-1027	
48PSB	48V	T2 Slide	E30 Full Voltage	28-1028	
60PSB	60V	T2 Slide	E30 Full Voltage	28-1598	
120PSB	120V	T2 Slide	E30 Full Voltage	28-1029	
#259	6.3V	T3-1/4 Wedge	E30 Single Transformer	28-949	

### E30 Series, Dimensions

## Dimensions

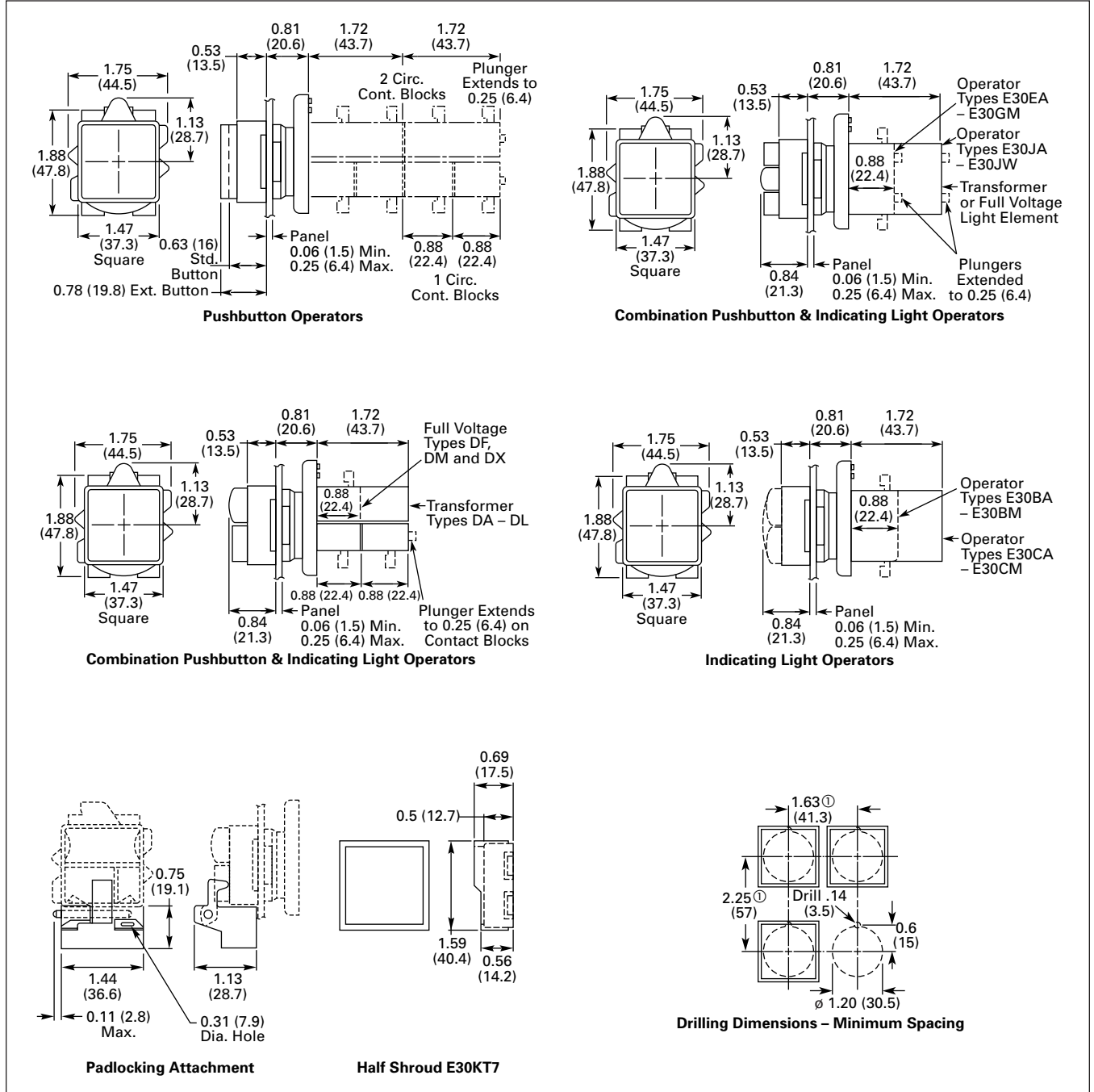


Figure 47-89. Approximate Dimensions in Inches (mm)

**Drilling Dimensions — Minimum Spacing**  
 Dimensions shown allow adequate space for the addition of one or two high legend plates and color coordinating collars.

**Note:** Locating nib hole or notch is 0.136" (3.5 mm) drill. Alternate to drilling mounting holes use Greenlee Tool Co. punch (No. 730-S) to punch the hole and (No. 730-K) to punch the notch.