

30.5 mm Square Multifunction Watertight/Oiltight—E30



### Contents

<i>Description</i>	<i>Page</i>
30.5 mm Square Multifunction Watertight/Oiltight—E30	
Product Identification .....	<b>V7-T1-196</b>
Product Selection	
Operators .....	<b>V7-T1-197</b>
Operator Components .....	<b>V7-T1-200</b>
Accessories .....	<b>V7-T1-206</b>
Options .....	<b>V7-T1-207</b>
Replacement Parts .....	<b>V7-T1-210</b>
Technical Data and Specifications .....	<b>V7-T1-211</b>
Dimensions .....	<b>V7-T1-212</b>

### Product Description

The E30 industrial pushbutton and indicating light line from Eaton's Electrical Sector features a wide selection of square, multifunction operators which conveniently mount in a standard 30.5 mm (1-13/64 in) 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 600 Vac supply line voltage or full voltage light unit up to 120 Vac/Vdc 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



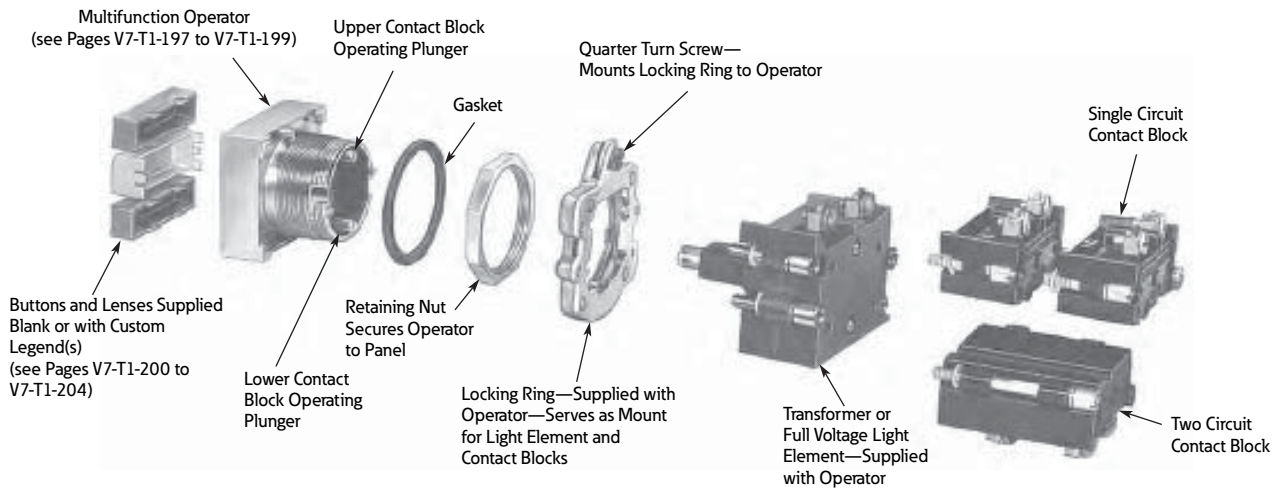
### Ingress Protection

- 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

#### 1

### Product Identification

#### 30.5 mm Square Multifunction Watertight/Oiltight



### Product Selection

#### Operators

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

Catalog Number of ...	Ordering Example (E30AB)	
Operator	E30KB130	“START”
Button(s)	E30KB231	“STOP”
Contact block(s)	E30KLA1	1NO
Accessories (if required)	E30KLA2	1NC

#### Square Multifunction Operators

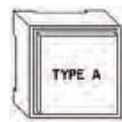
UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

#### Single Button Operator

#### Single Button Operator/without Button (Order Button Separately)



Shown with Extended Button



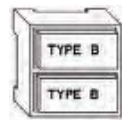
Button Type Required ①	Operation	Special Features	Catalog Number
TYPE A	Momentary	—	E30AA

#### Two Button Operator

#### Two Button Operator/without Buttons (Order Buttons Separately)



Shown with Extended Buttons



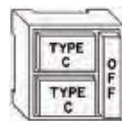
Button Types Required ①	Operation		Special Features	Catalog Number
	Top Button	Bottom Button		
TYPE B	Momentary	Momentary	—	E30AB
	Momentary	Momentary	With mechanical interlock	E30AC
	Maintained (all contacts)	Release (all contacts)	—	E30AD ②
	Maintained (all contacts)	Release (all contacts)	With mechanical interlock	E30AP ②③

#### Two Button Operator

#### Two Button Operator with Long (OFF) Release Bar—Includes OFF Bar/Button (Order Other Buttons Separately)



Shown with Long Release Bar



Button Types Required ④⑤	Operation		Special Features	Catalog Number
	Top Button	Bottom Button		
TYPE C	Maintained	Maintained	—	E30AF
	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 ⑥


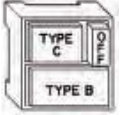

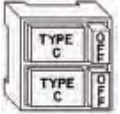
#### Notes

- ① Order from table on **Page V7-T1-200**.
- ② Limited to two single circuit, one double circuit 600V or two 120V (E30KLA9) contact blocks behind each button.
- ③ 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.
- ④ 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**.
- ⑤ Order from table on **Page V7-T1-201**.
- ⑥ Limited to two single circuit, one double circuit 600V or two 120V (E30KLA9) contact blocks behind each button.

#### Square Multifunction Operators and Indicating Lights

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

#### Two Button Operator with (OFF) Release—Includes OFF Bar/Button(s) (Order Other Buttons Separately)


Two Button Operator	Button Types Required <sup>①②</sup>	Operation		Special Features	Catalog Number
		Top Button	Bottom Button		
 <p><i>Shown with Release Bar for Top Button</i></p>		Maintained	Momentary	Release bar for top button	<b>E30AL</b>
 <p><i>Shown with Release Bars for Each Button</i></p>		Maintained	Maintained	Individual release bars for each button	<b>E30AN</b>
		Maintained with interlock	Maintained with interlock	Individual release bars for each button	<b>E30AM</b>

#### Single Indicating Light Unit



*Shown with Lens*

#### Single Indicating Light Unit/without Lens (Order Lens Separately)

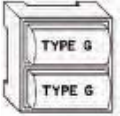
Lens Type Required <sup>③</sup>	Type of Light Element			Full Voltage (60/50 Hertz AC or DC)		
	Transformer (60/50 Hertz AC)					
	Voltage	Lamp Number <sup>④</sup>	Catalog Number	Voltage	Lamp Number <sup>④</sup>	Catalog Number
	120	#259	<b>E30BA</b>	24	24PSB	<b>E30BJ</b>
				120	120PSB	<b>E30BM</b>

#### Dual Indicating Light Unit



*Shown with Lens*

#### Dual Indicating Light Unit/without Lenses (Order Lenses Separately)

Lens Types Required <sup>⑤</sup>	Type of Light Element			Full Voltage (60/50 Hertz AC or DC)		
	Transformer (60/50 Hertz AC)					
	Voltage	Lamp Number <sup>④</sup>	Catalog Number	Voltage	Lamp Number <sup>④</sup>	Catalog Number
	120	6PSB	<b>E30CA</b>	24	24PSB	<b>E30CJ</b>
				120	120PSB	<b>E30CM</b>

#### Notes

- ① Order from table on **Page V7-T1-201**.
- ② 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 Order from table on **Page V7-T1-202**.
- ④ Light units will also accept LED lamps. For LED part numbers, see table on **Page V7-T1-210**.
- ⑤ Order from table on **Page V7-T1-203**.

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

### Single Button Operator and Indicating Light



Shown with Button and Lens

### Single Button Operator with Indicating Light/without Button or Lens (Order Button and Lens Separately)

Button and Lens Types Required <sup>①</sup>	Operation (Bottom Button)	Type of Light Element Transformer (60/50 Hertz AC)			Full Voltage (60/50 Hertz AC or DC)		
		Voltage	Lamp Number <sup>②</sup>	Catalog Number	Voltage	Lamp Number <sup>②</sup>	Catalog Number
TYPE G TYPE B	Momentary	120	6PSB	E30DA	24	24PSB	E30DX3
		120	120PSB	E30DF			

### Single Button Operator with Release Bar and Indicating Light



Shown with Button and Lens

### Single Button Operator with (OFF) Release Bar and Indicating Light—Includes OFF Bar/Button (Order Other Button and Lens Separately)

Button and Lens Types Required <sup>①</sup>	Operation (Bottom Button)	Type of Light Element Transformer (60/50 Hertz AC)			Full Voltage (60/50 Hertz AC or DC)		
		Voltage	Lamp Number <sup>②</sup>	Catalog Number	Voltage	Lamp Number <sup>②</sup>	Catalog Number
TYPE G TYPE C	Maintained	120	6PSB	E30DG	24	24PSB	E30DX13
		120	120PSB	E30DM			

### Two Button Operator with Indicating Light



Shown with Button and Lens

### Two Button Operator with Indicating Light/without Buttons or Lens (Order Buttons and Lens Separately)

Button and Lens Types Required <sup>④</sup>	Button Operation	Type of Light Element Transformer (60/50 Hertz AC)			Full Voltage (60/50 Hertz AC or DC)		
		Voltage	Lamp Number <sup>②</sup>	Catalog Number	Voltage	Lamp Number <sup>②</sup>	Catalog Number
TYPE E TYPE J TYPE E	Momentary	120	6PSB	E30EA	24	24PSB	E30EX3
		120	120PSB	E30EF			
TYPE E	Momentary with interlock	120	6PSB	E30EG	24	24PSB	E30EX13
		120	120PSB	E30EM			

### Two Button Operator with Dual Indicating Lights



Shown with Button and Lens

### Two Button Operator with Dual Indicating Lights/without Buttons and Lens

Button and Lens Types Required <sup>①</sup>	Button Operation	Type of Light Element Transformer (60/50 Hertz AC)			Full Voltage (60/50 Hertz AC or DC)		
		Voltage	Lamp Number <sup>②</sup>	Catalog Number	Voltage	Lamp Number <sup>②</sup>	Catalog Number
TYPE E TYPE K TYPE E	Momentary	120	6PSB	E30JA	24	24PSB	E30JX3
		120	120PSB	E30JF			

#### Notes

- ① Order from tables on **Pages V7-T1-200 to V7-T1-204.**
- ② Light units will also accept LED lamps. For LED part numbers, see table on **Page V7-T1-210.**
- ③ 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.**
- ④ Order from tables on **Pages V7-T1-202 and V7-T1-203.**


## Operator Components

### Operating Buttons Only

#### Type A Extended Button



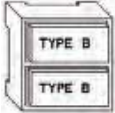
#### Type A Buttons with Standard Markings <sup>①</sup>

Button Application	Color	Marking	Extended Button Catalog Number	Short Button Catalog Number	Color	Marking	Extended Button Catalog Number	Short Button Catalog Number
	Black	Blank	E30KA100	E30KA150	Green	START	E30KA330	E30KA380
		START	—	E30KA180	Yellow	Blank	E30KA400	E30KA450
Red	Red	Blank	E30KA200	E30KA250	White	Blank	E30KA500	E30KA550
		EMERG. STOP	E30KA204	—	Gray	Blank	E30KA600	E30KA650
		OFF	E30KA218	E30KA268	Brown	Blank	E30KA700	E30KA750
		STOP	E30KA231	E30KA281	Orange	Blank	E30KA800	E30KA950
Green	Blank	E30KA300	E30KA350	Blue	Blank	E30KA900	E30KA950	

#### Type B Extended Button



#### Type B Buttons with Standard Markings <sup>②</sup>

Button Application	Color	Marking	Extended Button Catalog Number	Short Button Catalog Number	Color	Marking	Extended Button Catalog Number	Short Button Catalog Number	
	Black	Blank	E30KB100	E30KB150	Black	REVERSE	E30KB125	E30KB175	
		AUTO	E30KB101	E30KB151		RUN	E30KB126	E30KB176	
		CLOSE	E30KB102	E30KB152		SLOW	E30KB128	E30KB178	
		DOWN	E30KB103	E30KB153		START	E30KB130	E30KB180	
		FAST	E30KB105	E30KB155		TEST	E30KB132	E30KB182	
		FORWARD	E30KB107	E30KB157		UP	E30KB134	E30KB184	
		HIGH	E30KB109	E30KB159		Red	Blank	E30KB200	E30KB250
		IN	E30KB110	E30KB160	EMERG. STOP		E30KB204	—	
		INCH	E30KB111	E30KB161	OFF		E30KB218	E30KB268	
		JOG	E30KB112	E30KB162	STOP		E30KB231	E30KB281	
		JOG FOR.	E30KB113	E30KB163	Green		Blank	E30KB300	E30KB350
		JOG REV.	E30KB114	E30KB164			START	E30KB330	E30KB380
		LOW	E30KB115	E30KB165			Yellow	Blank	E30KB400
		LOWER	E30KB116	E30KB166	White	Blank	E30KB500	E30KB550	
		MAN	E30KB117	E30KB167		AUTO	E30KB501	—	
		ON	E30KB119	E30KB169		HAND	E30KB508	—	
		OPEN	E30KB120	E30KB170	Gray	Blank	E30KB600	E30KB650	
OUT	E30KB121	E30KB171	Brown	Blank	E30KB700	E30KB750			
RAISE	E30KB122	E30KB172	Orange	Blank	E30KB800	E30KB850			
RESET	E30KB124	E30KB174	Blue	Blank	E30KB900	E30KB950			

#### Notes

<sup>①</sup> Use with operator E30AA, legend characters 3/16 in (4.8 mm) high.

<sup>②</sup> Use with operators E30AB thru AE, AL and DA thru DF, legend characters 3/16 in (4.8 mm) high.

Type C Extended Button



### Type C Buttons with Standard Markings <sup>Ⓢ</sup>

Button Application	Color	Marking	Extended Button Catalog Number	Short Button Catalog Number	Color	Marking	Extended Button Catalog Number	Short Button Catalog Number	
	Black	Blank	E30KC100	E30KC150	Black	RESET	E30KC124	E30KC174	
		AUTO	E30KC101	E30KC151		REVERSE	E30KC125	E30KC175	
		CLOSE	E30KC102	E30KC152		RUN	E30KC126	E30KC176	
		DOWN	E30KC103	E30KC153		SLOW	E30KC128	E30KC178	
		FAST	E30KC105	E30KC155		START	E30KC130	E30KC180	
		FORWARD	E30KC107	E30KC157		TEST	E30KC132	E30KC182	
		HAND	E30KC108	E30KC158		UP	E30KC134	E30KC184	
		HIGH	E30KC109	E30KC159		Red	Blank	E30KC200	E30KC250
		IN	E30KC110	E30KC160			OFF	E30KC218	—
		INCH	E30KC111	E30KC161			STOP	E30KC231	E30KC281
		JOG	E30KC112	E30KC162		Green	Blank	E30KC300	E30KC350
		JOG FOR.	E30KC113	E30KC163			START	E30KC330	E30KC380
		JOG REV.	E30KC114	E30KC164		Yellow	Blank	E30KC400	E30KC450
		LOW	E30KC115	E30KC165			White	Blank	E30KC500
		LOWER	E30KC116	E30KC166		Gray	Blank	E30KC600	E30KC650
		MAN	E30KC117	E30KC167			Brown	Blank	E30KC700
		ON	E30KC119	E30KC169		Orange	Blank	E30KC800	E30KC850
OPEN	E30KC120	E30KC170	Blue	Blank	E30KC900		E30KC950		
OUT	E30KC121	E30KC171							
RAISE	E30KC122	E30KC172							

**Note**

<sup>Ⓢ</sup> Use with operators E30AF thru AK, AL thru AM and DG thru DM, legend characters 1/8 in (3.2 mm) high.

**Operating Buttons and Lens Only****Standard Color Buttons and Lens Marking** ①

**Black lettering** on — White, Amber, Yellow and Clear.

**White lettering** on — Green, Red, Blue, Brown, Black, Orange and Gray.

**Type E Button****Type E Buttons with Standard Markings** ②

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

**Type F Lens****Type F Lenses with Standard Markings** ③

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

**Notes**

① For lenses with special markings or with standard markings but in a different color, refer to instructions on **Pages V7-T1-207 to V7-T1-209**.

② Use with operators E30EA thru EM, FA thru FM and JA thru JM, legend characters 1/8 in (3.2 mm) high.

③ Use with operators E30BA thru BY, legend characters 3/16 in (4.8 mm) high.



### Operating Lens Only

#### Standard Color Buttons and Lens Marking ①

**Black lettering** on — White, Amber, Yellow and Clear.

**White lettering** on — Green, Red, Blue, Brown, Black, Orange and Gray.

#### Type G Lens



#### Type G Lenses with Standard Markings ②

Lens Application	Color	Marking	Catalog Number	Color	Marking	Catalog Number
	Red	Blank	<b>E30KG10</b>	Green	OFF	<b>E30KG22</b>
		MOTOR RUN	<b>E30KG11</b>		READY	<b>E30KG23</b>
		ON	<b>E30KG12</b>	Amber	Blank	<b>E30KG30</b>
		POWER ON	<b>E30KG13</b>		Blue	Blank
Green	Blank	<b>E30KG20</b>	Clear	Blank	<b>E30KG50</b>	
	MOTOR RUN	<b>E30KG24</b>		White	Blank	<b>E30KG60</b>
	MOTOR STOP	<b>E30KG21</b>				

#### Type J Lens



#### Type J Lenses with Standard Markings ③

Lens Application	Color	Marking	Catalog Number	Color	Marking	Catalog Number
	Red	Blank	<b>E30KJ10</b>	Green	OFF	<b>E30KJ22</b>
		MOTOR RUN	<b>E30KJ11</b>		ON	<b>E30KJ24</b>
		ON	<b>E30KJ12</b>	Amber	Blank	<b>E30KJ30</b>
		POWER ON	<b>E30KJ13</b>		Blue	Blank
		MOTOR STOP	<b>E30KJ14</b>	Clear	Blank	<b>E30KJ50</b>
Green	Blank	<b>E30KJ20</b>	White		Blank	<b>E30KJ60</b>
	MOTOR STOP	<b>E30KJ21</b>				
	MOTOR RUN	<b>E30KJ23</b>				

#### Type K Lenses



#### Type K Lenses with Standard Markings (Sold in Pairs Only) ④

Lens Application	Color		Marking		Catalog Number
	Left Hand Lens	Right Hand Lens	Left Hand Lens	Right Hand Lens	
	Red	Red	ON	ON	<b>E30KK12</b>
		Green	ON	OFF	<b>E30KK13</b>
	Green		OFF	OFF	<b>E30KK22</b>
		Red	OFF	ON	<b>E30KK23</b>

#### Notes

- ① For lenses with special markings or with standard markings but in a different color, refer to instructions on **Pages V7-T1-207 to V7-T1-209**.
- ② Use with operators E30CA thru CM and DA thru DM, legend characters 3/16 in (4.8 mm) high except MOTOR RUN, POWER ON and MOTOR STOP are 1/8 in (3.2 mm) high.
- ③ Use with operators E30EA thru EM, FA thru FM and GA thru GM, legend characters 1/8 in (3.2 mm) high.
- ④ Use with operators E30JA thru JW, legend characters 1/8 in (3.2 mm) high

#### 1

#### Type K Lenses



#### Type K Lenses—Blank (Sold in Pairs Only)

Color			Color		
Left Hand Lens	Right Hand Lens	Catalog Number	Left Hand Lens	Right Hand Lens	Catalog Number
Red	Red	<b>E30KK10</b>	Blue	Red	<b>E30KK41</b>
	Green	<b>E30KK11</b>		Green	<b>E30KK42</b>
	Amber	<b>E30KK17</b>		Amber	<b>E30KK43</b>
	Blue	<b>E30KK14</b>		Blue	<b>E30KK40</b>
	Clear	<b>E30KK15</b>		Clear	<b>E30KK45</b>
	White	<b>E30KK16</b>		White	<b>E30KK46</b>
Green	Red	<b>E30KK21</b>	Clear	Red	<b>E30KK51</b>
	Green	<b>E30KK20</b>		Green	<b>E30KK52</b>
	Amber	<b>E30KK27</b>		Amber	<b>E30KK53</b>
	Blue	<b>E30KK24</b>		Blue	<b>E30KK54</b>
	Clear	<b>E30KK25</b>		Clear	<b>E30KK50</b>
	White	<b>E30KK26</b>		White	<b>E30KK56</b>
Amber	Red	<b>E30KK31</b>	White	Red	<b>E30KK61</b>
	Green	<b>E30KK32</b>		Green	<b>E30KK62</b>
	Amber	<b>E30KK30</b>		Amber	<b>E30KK63</b>
	Blue	<b>E30KK34</b>		Blue	<b>E30KK64</b>
	Clear	<b>E30KK35</b>		Clear	<b>E30KK65</b>
	White	<b>E30KK36</b>		White	<b>E30KK60</b>

### Contact Blocks

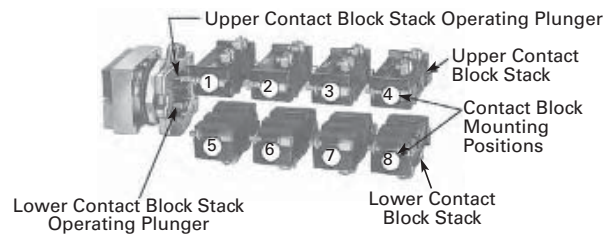
**Standard Contact Blocks**—Molded, phenolic construction. Enclosed silver contacts with reliability “nibs” that improve the reliability of switching performance under dry circuit, corrosive atmosphere and fine dust conditions. For more extreme conditions, the logic level contact blocks described below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

**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.

### Mounting Limitations

See the contact block mounting limitations for Type E30 pushbutton and combination pushbutton and light operators on this page. 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 two-circuit 120 volt block. The two-circuit 600 volt block requires two of the numbered positions shown.

### Mounting Positions



Catalog Number of Operator	Contact Blocks Can Be Mounted in Positions Listed Below	
	Upper Stack	Lower Stack
E30AA thru E30AM ①	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

### Contact Block Type ② Contact Block Selection

#### Single Circuit, Screw Terminals



#### Two Circuit, Screw Terminals



#### Two Circuit, Quick Connect Terminals



#### 120 Vac Only—Two Circuit













Circuit	Standard Catalog Number	Pressure Terminals	Logic Level	Quick Connect Terminals ③
		Standard Catalog Number	Catalog Number	Standard Catalog Number
1NO	E30KLA1	<b>600 Vac, 250 Vdc—Single Circuit</b>		E30KLB1
1NC	E30KLA2			E30KLB2
1NO-1NC	E30KLA3	<b>600 Vac, 250 Vdc—Two Circuit</b>		E30KLB3
2NO	E30KLA4			E30KLB4
2NC	E30KLA5			E30KLB5
<b>Special Contact Operation</b>				
1NO-1NC Overlapping	E30KLA6 ④	—		E30KLB6 ④
2NO (One early closing)	E30KLA7 ④	—		E30KLB7 ④
2NC (One late opening)	E30KLA8	—		E30KLB8
1NO-1NC	<b>120 Vac Only—Two Circuit</b>			
	E30KLA9 ⑤	—		E30KLB9 ⑤

#### Notes

- ① Except operator E30AD, AJ or AK which will accommodate contact blocks 1, 2, 5 and 6 only. (See Mounting Positions above.)
- ② Individually boxed contact blocks master packed 10 per carton.
- ③ Supplied with non-stacking screws. Limited to 2 contact blocks mounted in positions 1 and 5.
- ④ Do not use with maintained operators.
- ⑤ Contacts must be same polarity.

## Accessories

## Accessories

	Description	Color/Type	Catalog Number
E30KR_ 	<b>Collar</b> —Snap on mounting for assembly in the field. Permits color coding of operator heads. Size: 1-19/32 x 1-19/32 x 9/16 in.	Black	<b>E30KR1</b>
		Red	<b>E30KR2</b>
		Green	<b>E30KR3</b>
		Yellow	<b>E30KR4</b>
		White	<b>E30KR5</b>
		Gray	<b>E30KR6</b>
		Orange	<b>E30KR8</b>
		Blue	<b>E30KR9</b>
		Brown	<b>E30KR10</b>
		E30KT_  Full Shroud Half Shroud	<b>Shroud</b> —Similar to collar above except for extension above the face of button to prevent accidental actuation of button. Half shroud with an extension on only half the collar may be positioned to protect top or bottom button.
Half shroud (gray)	<b>E30KT7</b>		
E30KR3_ 	<b>Guard</b> —Two collars deep, removable slide prevents accidental operation. White slide can be marked with grease pencil.	Red with white slide	<b>E30KR31</b>
		Red with clear slide	<b>E30KR32</b>
E30KR30 	<b>Terminal Block</b> —2 terminals, each will accommodate 2-wire terminations.		<b>E30KR30</b>
E30KT_ 	<b>Padlock Attachment</b> for locking single button and bottom button of multi-function operators in the depressed position. Locks NC contacts open or early closing NO contacts closed. Cannot be used in conjunction with collar, shroud or boot.	Short button	<b>E30KT1</b>
		Extended button	<b>E30KT2</b>
E30KT3 	<b>Transparent Boot</b> —Guards against ingress of foreign material and freezing rain. <b>Note:</b> If this boot is used in conjunction with operator types AD or AE, an extended type button must be used in the top position and a short button in the lower position.		<b>E30KT3</b> ①
E30KT_ 	<b>Square Hole Plug</b> —	Gray enameled	<b>E30KT4</b>
		Stainless steel	<b>E30KT5</b>
E30KV1 	<b>Lamp and Lens Removal Tool</b> —Will not fit Cat. No. E30B light units listed on <b>Page V7-T1-198</b> .		<b>E30KV1</b>
E22CW 	<b>Octagonal Wrench</b> for mounting operators to panel.		<b>E22CW</b>
E30KV2 	<b>Button and Lens Removal Tool</b>		<b>E30KV2</b>

**Note**

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

### 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

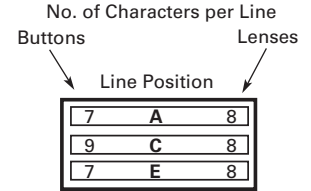
- Specify catalog number of blank button or lens of desired color, plus suffix "STAMP" for non-standard or "STD" for standard markings in order notes. See **Pages V7-T1-200 to V7-T1-204**.
- Specify size, legend desired and location in order notes by alphas as shown in example.
- Do not exceed maximum number of legend characters per line.

##### Ordering Example

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

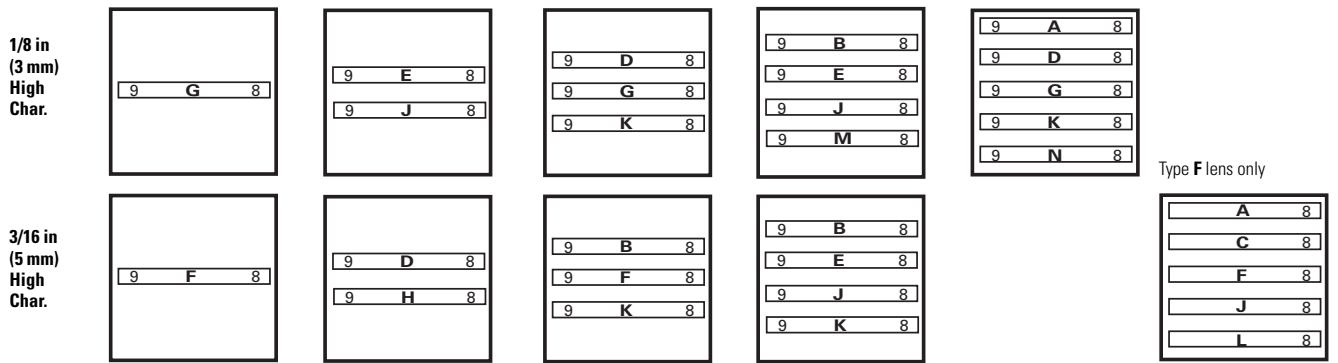
Catalog No.: **E30KB300STAMP**  
 Letter Size: 1/8 in  
 Pos. A—ALL  
 Pos. C—ELEVATORS  
 Pos. F—DOWN

##### How to Use the Legend Location Figure

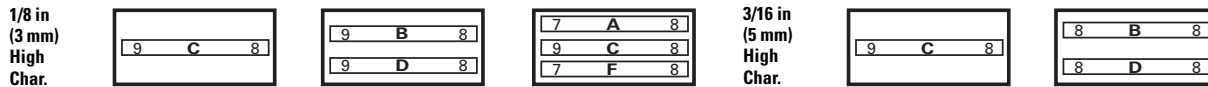


#### Legend Locations

Type A buttons and Type F lenses



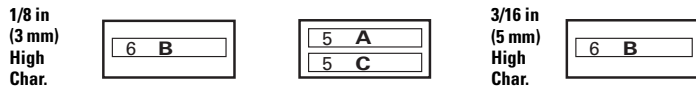
Type B buttons and Type G lenses



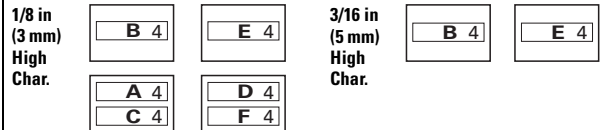
Type C buttons



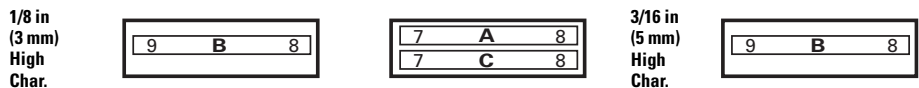
Type D buttons



Type K buttons



Type E buttons and Type J lenses



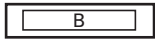
#### Standard Markings

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

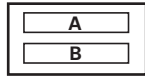
#### 1

#### Legend Arrangements and Legend Locations

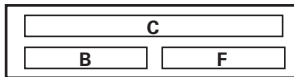
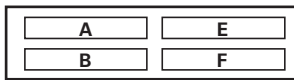
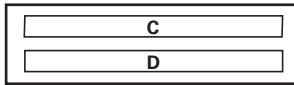
Legend plates  
E30KM1 or KM11



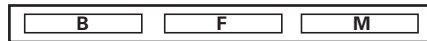
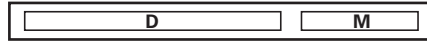
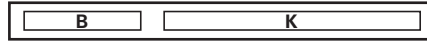
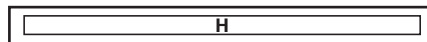
Legend plates  
E30KM4 or KM14



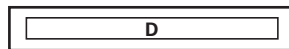
Legend plates  
E30KM3 or KM13



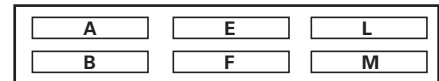
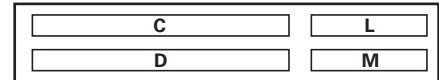
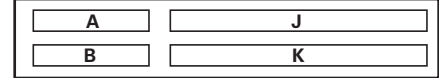
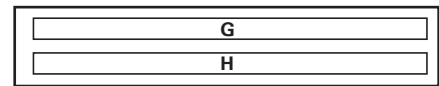
Legend plates  
E30KM5 or KM15



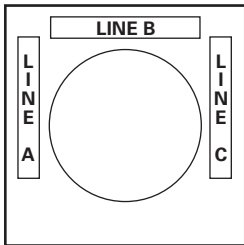
Legend plates  
E30KM2 or KM12



Legend plates  
E30KM6 or KM16



#### Legend Plates E30KN76 or KN76B



Legend plates  
E30KN76 or KN76B  
1/8 in character  
size only with a maximum  
of six characters.

#### 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 in (2.5 mm)	1/8 in (3 mm)	3/16 in (5 mm)	3/32 in (2.5 mm)	1/8 in (3 mm)	3/16 in (5 mm)	3/32 in (2.5 mm)	1/8 in (3 mm)	3/16 in (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 in (2.5 mm)—1/8 in (3 mm)—3/16 in (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 V7-T1-200 to V7-T1-204**.
- Specify size, legend desired, location and state “vertically marked” in order notes.

**Note:** Specify either 1/8 or 3/16 in (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.”

Catalog No.: **E30KK20STAMP**  
 Letter Size: 3/16 in (4.8 mm)  
 Vertically Marked  
 Pos. B—RUN  
 Pos. E—ON

#### 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.

#### 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 in (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.”

Catalog No.: **E30KM3STAMP**  
 Letter Size: 1/8 in (3.2 mm)  
 Pos. C—MASTER CONTROL  
 Pos. B—STATION A  
 Pos. F—STATION B

### Maximum Number of Characters

Description	Type	Maximum Number of Characters	
		1/8 in (3.2 mm)	3/16 in (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

### Blank Legend Plates and Legend Plates with Markings

Type		One Span Catalog Number
<b>Black</b>		
<b>Standard—One Span</b>	Standard	<b>E30KM1</b>
		
<b>Large—One Span</b>	Large	<b>E30KM4</b>
		

## Replacement Parts

### Replacement Light Units for E30 Components

Voltage AC and DC	Part Numbers—Receptacles without Lamps				
	Single Indicating Light	Dual Indicating Light	Single Light Single Pushbutton	Single Light Dual Pushbutton	Dual Light Dual Pushbutton
<b>Full Voltage Type</b>					
6V	57-2579-3A	57-2568A	57-2568A	57-2579-3A	57-2567
12V	57-2579-3A	57-2568A	57-2568A	57-2579-3A	57-2567
18/24V	57-2579-3A	57-2568A	57-2568A	57-2579-3A	57-2567
28V	57-2579-3A	57-2568A	57-2568A	57-2579-3A	57-2567
32V	57-2579-3A	57-2568-2A	57-2568-2A	—	57-2567
48V	57-2579-3A	57-2568A	57-2568A	57-2579-3A	57-2567
120V	57-2579-3A	57-2568A	57-2568A	57-2579-3A	57-2567
<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

### Replacement Lamps for E30 Illuminated Operators

Mfg. Lamp Type	Voltage	Base Style	Application	Part Number
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

### Replacement Lamps—Incandescent and LED

Lamp Voltage	Incandescent Lamps			LED Lamps			
	Manufacturer's Part Number	Base Style	Eaton's Part Number	Eaton's Part Number Red	Green	Yellow	Blue ①
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

#### Note

① E30 blue LED bulbs may not provide sufficient intensity for some applications.



### Technical Data and Specifications

#### Operator Specifications

Description	Specification
<b>Climate Conditions</b>	
Operating	−20° to 150°F (−29° to 65°C)
<b>Terminals</b>	
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)
<b>Materials</b>	
Operator	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.
Internal parts	Including shafts, washers and springs, are made of stainless steel
Buttons and lenses	Colorfast, wear resistant, molded acetal resin
Contact blocks	Made of molded, heat resistant, mineral filled phenolic Contact block plungers are molded of nylon filled phenolic Contacts are silver
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 Reliability nibs self-adjust to the application—dry circuit, normal or heavy-duty

#### Reliability Nibs



### Electrical Ratings

#### Contact Blocks

Meet or Exceed NEMA Contact Rating Designation A600 and P300

Description	Vac A600				Vdc P300		
	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 current (Amps)	10	10	10	10	5	5	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

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

Description	Specification
Maximum amperes	0.5A ①
Maximum volts	120 Vac/Vdc

#### Note

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

#### Light Unit

Description	Specification
<b>Bulbs—Average Life</b>	
Transformer type	20,000 hrs.
Resistor/direct voltage type	2,500 hrs. min. at rated voltage
LED	60,000 to 100,000 hrs.

