

30.5 mm Square Multifunction Watertight/Oiltight—E30



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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

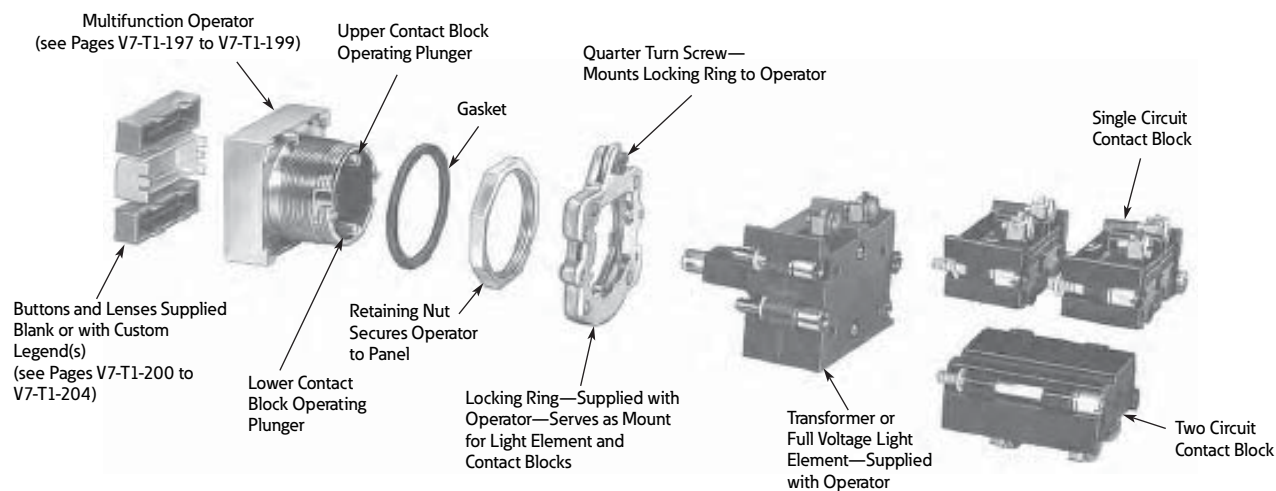
- UL Listed—File No. E131568
- CSA Certified—File No. LR68551



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

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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



Shown with
Extended Button

Single Button Operator/without Button (Order Button Separately)

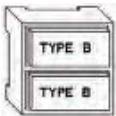
Button Type Required ^①	Operation	Special Features	Catalog Number
	Momentary	—	E30AA

Two Button Operator



Shown with
Extended Buttons

Two Button Operator/without Buttons (Order Buttons Separately)

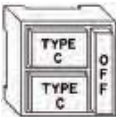
Button Types Required ^①	Operation		Special Features	Catalog Number
Top Button	Bottom Button			
	Momentary	Momentary	—	E30AB
	Momentary	Momentary	With mechanical interlock	E30AC
	Maintained (all contacts)	Release (all contacts)	—	E30AD ^②
	Maintained (all contacts)	Release (all contacts)	With mechanical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

Two Button Operator



Shown with Long
Release Bar

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

Button Types Required ^{④⑤}	Operation		Special Features	Catalog Number
Top Button	Bottom Button			
	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

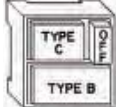
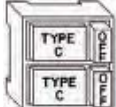
Notes

- 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)**

	Button Types Required ^{①②}	Operation		Special Features	Catalog Number
		Top Button	Bottom Button		
Two Button Operator  Shown with Release Bar for Top Button		Maintained	Momentary	Release bar for top button	E30AL
Two Button Operator  Shown with Release Bars for Each Button		Maintained	Maintained	Individual release bars for each button	E30AN
		Maintained with interlock	Maintained with interlock	Individual release bars for each button	E30AM

Single Indicating Light Unit

Shown with Lens
Single Indicating Light Unit/without Lens (Order Lens Separately)

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

Dual Indicating Light Unit

Shown with Lens
Dual Indicating Light Unit/without Lenses (Order Lenses Separately)

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

Notes

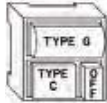
- ① Order from table on **Page V7-T1-201**.
- ② Operators are supplied as standard with red extended release bar(s) marked "OFF" as shown in sketch. For other colors or markings, contact your nearest Eaton Distributor or call our Customer Service Center 1-800-356-1243. For replacement of standard red 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 ^①	Operation (Bottom Button)	Type of Light Element			Full Voltage (60/50 Hertz AC or DC)		
		Transformer (60/50 Hertz AC)	Lamp Number ^②	Catalog Number	Voltage	Lamp Number ^②	Catalog Number
	Momentary	120	6PSB	E30DA	24	24PSB	E30DX3
					120	120PSB	E30DF

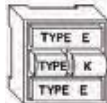
Single Button Operator with Release Bar and Indicating Light*Shown with Button and Lens***Single Button Operator with (OFF) Release Bar and Indicating Light—Includes OFF Bar/Button (Order Other Button and Lens Separately)**

Button and Lens Types Required ^①	Operation (Bottom Button)	Type of Light Element			Full Voltage (60/50 Hertz AC or DC)		
		Transformer (60/50 Hertz AC)	Lamp Number ^②	Catalog Number	Voltage	Lamp Number ^②	Catalog Number
	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 ^④	Button Operation	Type of Light Element			Full Voltage (60/50 Hertz AC or DC)		
		Transformer (60/50 Hertz AC)	Lamp Number ^②	Catalog Number	Voltage	Lamp Number ^②	Catalog Number
	Momentary	120	6PSB	E30EA	24	24PSB	E30EX3
					120	120PSB	E30EF
	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 ^①	Button Operation	Type of Light Element			Full Voltage (60/50 Hertz AC or DC)		
		Transformer (60/50 Hertz AC)	Lamp Number ^②	Catalog Number	Voltage	Lamp Number ^②	Catalog Number
	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

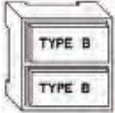
Type A Extended Button

Type A Buttons with Standard Markings ^①

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	Green	Blank	E30KA300	E30KA350	Blue	Blank	E30KA900	E30KA950

Type B Extended Button

Type B Buttons with Standard Markings ^②

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	Green	Blank	E30KB300	E30KB350
		JOG FOR.	E30KB113	E30KB163		START	E30KB330	E30KB380
		JOG REV.	E30KB114	E30KB164	Yellow	Blank	E30KB400	E30KB450
		LOW	E30KB115	E30KB165		Blank	E30KB500	E30KB550
		LOWER	E30KB116	E30KB166	White	AUTO	E30KB501	—
		MAN	E30KB117	E30KB167		HAND	E30KB508	—
		ON	E30KB119	E30KB169	Gray	Blank	E30KB600	E30KB650
		OPEN	E30KB120	E30KB170		Blank	E30KB700	E30KB750
		OUT	E30KB121	E30KB171	Orange	Blank	E30KB800	E30KB850
		RAISE	E30KB122	E30KB172		Blank	E30KB900	E30KB950
		RESET	E30KB124	E30KB174	Blue	Blank	E30KB900	E30KB950

Notes

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

^② 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** ^①

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		Blank	E30KC500	E30KC550
		LOWER	E30KC116	E30KC166	Gray	Blank	E30KC600	E30KC650
		MAN	E30KC117	E30KC167		Blank	E30KC700	E30KC750
		ON	E30KC119	E30KC169	Brown	Blank	E30KC800	E30KC850
		OPEN	E30KC120	E30KC170		Blank	E30KC900	E30KC950
		OUT	E30KC121	E30KC171	Orange	Blank		
		RAISE	E30KC122	E30KC172		Blank		

Note

^① 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	E30KE100	Black	RESET	E30KE124
		CLOSE	E30KE102		REVERSE	E30KE125
		DOWN	E30KE103		RUN	E30KE126
		FAST	E30KE105		SLOW	E30KE128
		FORWARD	E30KE107		START	E30KE130
		HIGH	E30KE109		TEST	E30KE132
		IN	E30KE110		UP	E30KE134
		INCH	E30KE111	Red	Blank	E30KE200
		JOG	E30KE112		OFF	E30KE218
		JOG FOR.	E30KE113		STOP	E30KE231
		JOG REV.	E30KE114	Green	Blank	E30KE300
		LOW	E30KE115		START	E30KE330
		LOWER	E30KE116	Yellow	Blank	E30KE400
		ON	E30KE119	White	Blank	E30KE500
		OPEN	E30KE120	Gray	Blank	E30KE600
		OUT	E30KE121	Brown	Blank	E30KE700
		PHASE	E30KE122	Orange	Blank	E30KE800
				Blue	Blank	E30KE900

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

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

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	E30KG10	Green	OFF	E30KG22
		MOTOR RUN	E30KG11		READY	E30KG23
		ON	E30KG12	Amber	Blank	E30KG30
		POWER ON	E30KG13		Blank	E30KG40
	Green	Blank	E30KG20	Blue	Blank	E30KG40
		MOTOR RUN	E30KG24	Clear	Blank	E30KG50
		MOTOR STOP	E30KG21	White	Blank	E30KG60

Type J Lens**Type J Lenses with Standard Markings** ^③

Lens Application	Color	Marking	Catalog Number	Color	Marking	Catalog Number
	Red	Blank	E30KJ10	Green	OFF	E30KJ22
		MOTOR RUN	E30KJ11		ON	E30KJ24
		ON	E30KJ12	Amber	Blank	E30KJ30
		POWER ON	E30KJ13		Blank	E30KJ40
		MOTOR STOP	E30KJ14	Blue	Blank	E30KJ40
	Green	Blank	E30KJ20	Clear	Blank	E30KJ50
		MOTOR STOP	E30KJ21	White	Blank	E30KJ60
		MOTOR RUN	E30KJ23			

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

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

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

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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	E30KK10	Blue	Red	E30KK41
	Green	E30KK11		Green	E30KK42
	Amber	E30KK17		Amber	E30KK43
	Blue	E30KK14		Blue	E30KK40
	Clear	E30KK15		Clear	E30KK45
	White	E30KK16		White	E30KK46
Green	Red	E30KK21	Clear	Red	E30KK51
	Green	E30KK20		Green	E30KK52
	Amber	E30KK27		Amber	E30KK53
	Blue	E30KK24		Blue	E30KK54
	Clear	E30KK25		Clear	E30KK50
	White	E30KK26		White	E30KK56
Amber	Red	E30KK31	White	Red	E30KK61
	Green	E30KK32		Green	E30KK62
	Amber	E30KK30		Amber	E30KK63
	Blue	E30KK34		Blue	E30KK64
	Clear	E30KK35		Clear	E30KK65
	White	E30KK36		White	E30KK60

Contact Blocks

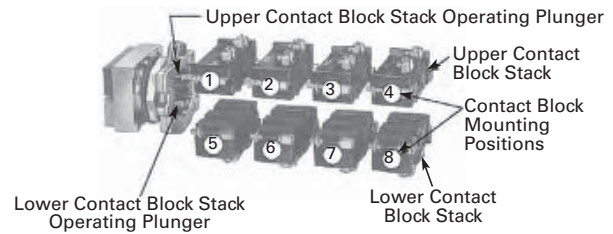
Standard Contact Blocks—Molded, phenolic construction. Enclosed silver contacts with reliability “nibs” that improve the reliability of switching performance under dry circuit, corrosive atmosphere and fine dust conditions. For more extreme conditions, the logic level contact blocks described below are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



		Pressure Terminals	Quick Connect Terminals ③	
Circuit		Standard Catalog Number	Logic Level Catalog Number	Standard Catalog Number
	1NO	600 Vac, 250 Vdc—Single Circuit		
		E30KLA1	E30KLAE1	E30KLB1
	1NC	E30KLA2	E30KLAE2	E30KLB2
	1NO-1NC	600 Vac, 250 Vdc—Two Circuit		
		E30KLA3	E30KLAE3	E30KLB3
	2NO	E30KLA4	E30KLAE4	E30KLB4
	2NC	E30KLA5	E30KLAE5	E30KLB5
Special Contact Operation				
	1NO-1NC Overlapping	E30KLA6 ④	—	E30KLB6 ④
	2NO (One early closing)	E30KLA7 ④	—	E30KLB7 ④
	2NC (One late opening)	E30KLA8	—	E30KLB8
	1NO-1NC	120 Vac Only—Two Circuit		
		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_ 	Collar —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	E30KR1
		Red	E30KR2
		Green	E30KR3
		Yellow	E30KR4
		White	E30KR5
		Gray	E30KR6
		Orange	E30KR8
		Blue	E30KR9
		Brown	E30KR10
		E30KT_ <i>Full Shroud</i> <i>Half Shroud</i>	Shroud —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)	E30KT7		
E30KR3_ 	Guard —Two collars deep, removable slide prevents accidental operation. White slide can be marked with grease pencil.	Red with white slide	E30KR31
		Red with clear slide	E30KR32
E30KR30 	Terminal Block —2 terminals, each will accommodate 2-wire terminations.		E30KR30
E30KT_ 	Padlock Attachment 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	E30KT1
		Extended button	E30KT2
E30KT3 	Transparent Boot —Guards against ingress of foreign material and freezing rain. Note: 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.		E30KT3 ①
E30KT_ 	Square Hole Plug — Gray enameled		E30KT4
		Stainless steel	E30KT5
E30KV1 	Lamp and Lens Removal Tool —Will not fit Cat. No. E30B light units listed on Page V7-T1-198 .		E30KV1
E22CW 	Octagonal Wrench for mounting operators to panel.		E22CW
E30KV2 	Button and Lens Removal Tool		E30KV2

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**

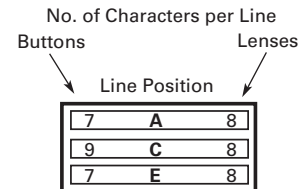
Letter Size: 1/8 in

Pos. A—ALL

Pos. C—ELEVATORS

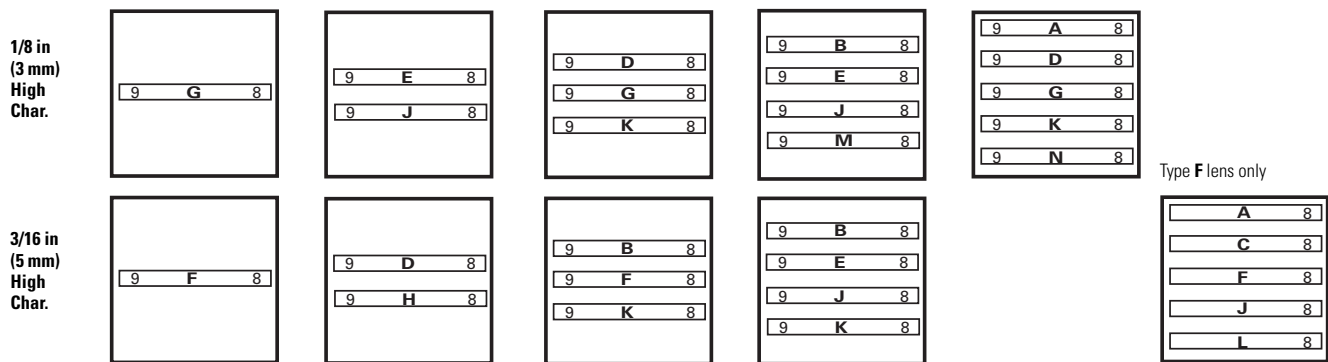
Pos. F—DOWN

How to Use the Legend Location Figure

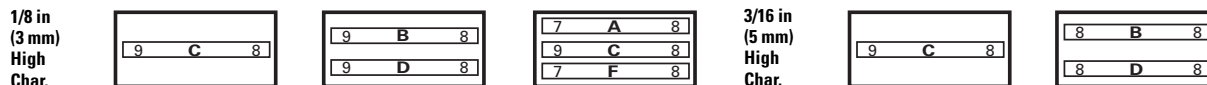


Legend Locations

Type A buttons and Type F lenses



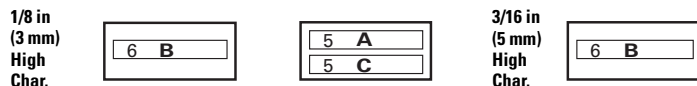
Type B buttons and Type G lenses



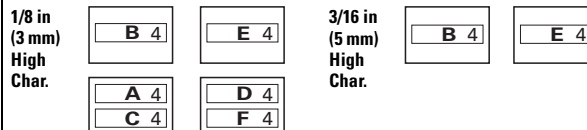
Type C buttons



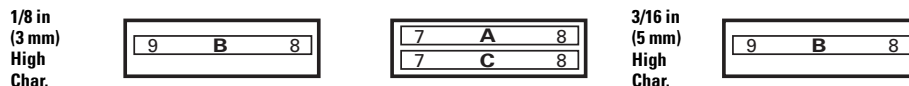
Type D buttons



Type K buttons



Type E buttons and Type J lenses



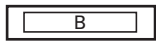
Standard Markings

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

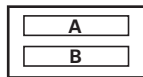
1

Legend Arrangements and Legend Locations

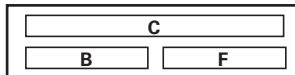
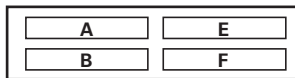
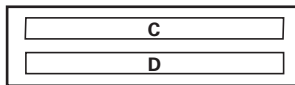
Legend plates
E30KM1 or KM11



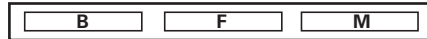
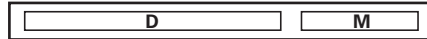
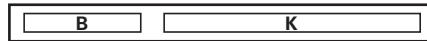
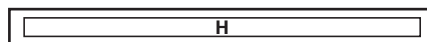
Legend plates
E30KM4 or KM14



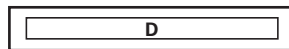
Legend plates
E30KM3 or KM13



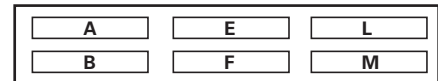
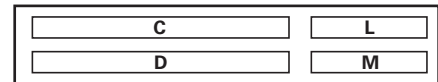
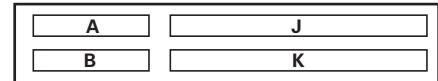
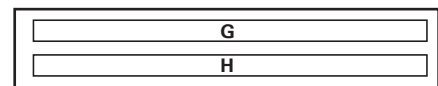
Legend plates
E30KM5 or KM15



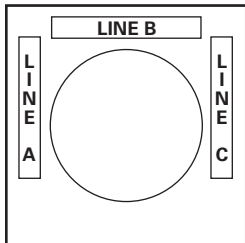
Legend plates
E30KM2 or KM12



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)
Standard	1	13	10	10	30	22	22	47	34
Large	1	13	10	10	30	23	23	47	36
	2	13	10	10	30	23	23	47	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

Blank Legend Plates and Legend Plates with Markings

	Type	One Span Catalog Number
	Black	
Standard— One Span	Standard	E30KM1
		
Large—One Span	Large	E30KM4
		

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

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
Full Voltage Type					
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
Transformer Type					
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
Description and Part Numbers—Related Parts					
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

Incandescent Lamps				LED Lamps			
Lamp Voltage	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
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 ²) 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 ²) Torque—7 lb-in (0.8 Nm)
Materials	
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.

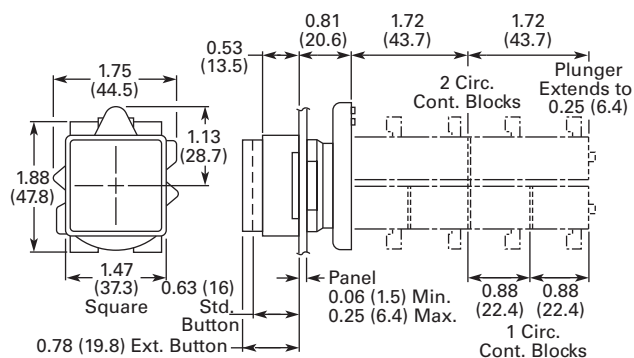
Light Unit

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

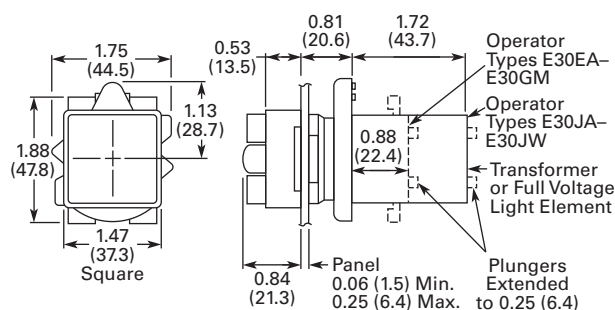
Dimensions

Approximate Dimensions in Inches (mm)

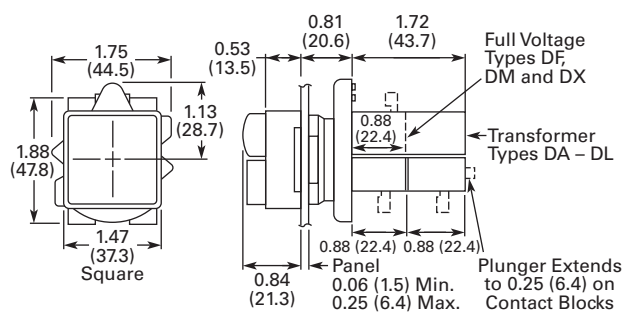
Pushbutton Operators



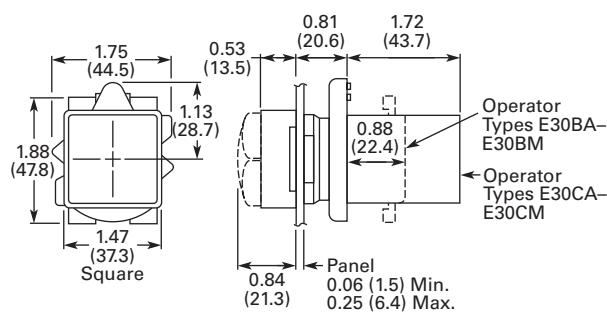
Combination Pushbutton and Indicating Light Operators



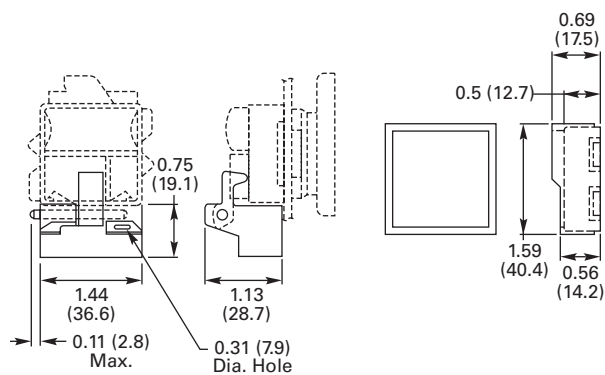
Combination Pushbutton and Indicating Light Operators



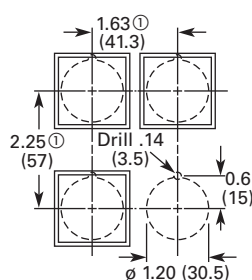
Indicating Light Operators



Padlocking Attachment and Half Shroud E30KT7



Drilling Dimensions—Minimum Spacing ^{①②}



Notes

- ① Dimensions shown allow adequate space for the addition of one or two high legend plates and color coordinating collars.
- ② Locating nib hole or notch is 0.136 in (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.

Legend Plates

