



## 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.

## Contents

### Description

30.5 mm Square Multifunction Watertight/Oiltight—E30

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## 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

**Operating Buttons and Lens Only****Standard Color Buttons and Lens Marking** <sup>①</sup>

**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** <sup>②</sup>

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>		Blank	<b>E30KE500</b>
		OPEN	<b>E30KE120</b>	Gray	Blank	<b>E30KE600</b>
		OUT	<b>E30KE121</b>		Blank	<b>E30KE700</b>
		PHASE	<b>E30KE122</b>	Brown	Blank	<b>E30KE800</b>
					Blank	<b>E30KE900</b>

**Type F Lens****Type F Lenses with Standard Markings** <sup>③</sup>

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>		Blank	<b>E30KF30</b>
		ON	<b>E30KF12</b>	Blue	Blank	<b>E30KF40</b>
		POWER ON	<b>E30KF13</b>		Blank	<b>E30KF50</b>
	Green	Blank	<b>E30KF20</b>	Clear	Blank	<b>E30KF50</b>
		MOTOR STOP	<b>E30KF21</b>		Blank	<b>E30KF60</b>
		MOTOR RUN	<b>E30KF23</b>	White	Blank	<b>E30KF60</b>

**Notes**

<sup>①</sup> For lenses with special markings or with standard markings but in a different color, refer to instructions on **Pages V7-T1-176 to V7-T1-178.**

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

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

## 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



Dry Circuit



Medium Duty



Heavy-Duty

## 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 <sup>①</sup>
Maximum volts	120 Vac/Vdc

#### Note

<sup>①</sup> 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.