

# 30.5 mm RUGGED PUSHBUTTONS

- Epoxy-Coated Metal Operators
- Corrosion Resistant
- Integral Ground Screw Terminal on Operators
- FDA Approved for Sanitary Chemical Resistance Requirements

All models shown smaller than actual size.



E34EB2



E34JB2



E34JB2N8



E34LB2



E34PB1



E34PB3

The E34 Series 30.5 mm pushbutton line features the same rugged die cast construction of our 10250T line with an additional two layer 100% solid thermosetting cathodic epoxy coating. This coating provides a flat black smooth, consistent, corrosion resistant surface that has passed a demanding 600 hour salt spray test. (The industry standard for this 4X test requires only 200 hours). E34 cathodic coating is not recommended for use in applications where

exposure to ultraviolet light exists—use NEMA 4X 10250T operators.

The contact blocks feature enclosed silver contacts with pointed "reliability nibs" for reliable performance from logic level up to 600V. To ensure reliable switching, nibs bite through oxide which can form on silver contacts, eliminating the need for expensive logic level blocks for most applications. The E34 Series pushbutton operators offer

front of panel drainage via holes in the operator bushing. Hidden from view by the mounting nut, these holes prevent buildup of liquid inside the operator, which can prevent operation in freezing environments. The holes also provide a route for escaping liquid in high pressure washdowns, effectively relieving pressure from the internal diaphragm seal, ensuring reliable sealing in applications even beyond NEMA 4.

## Build Your Own System

All models shown smaller than actual size.



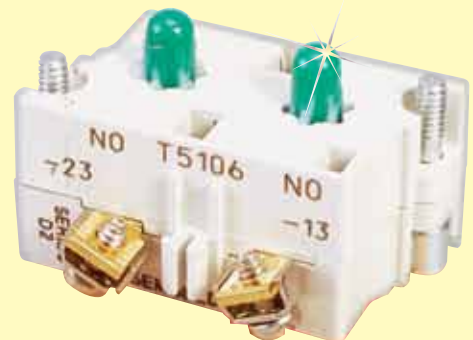
E34JB2

+

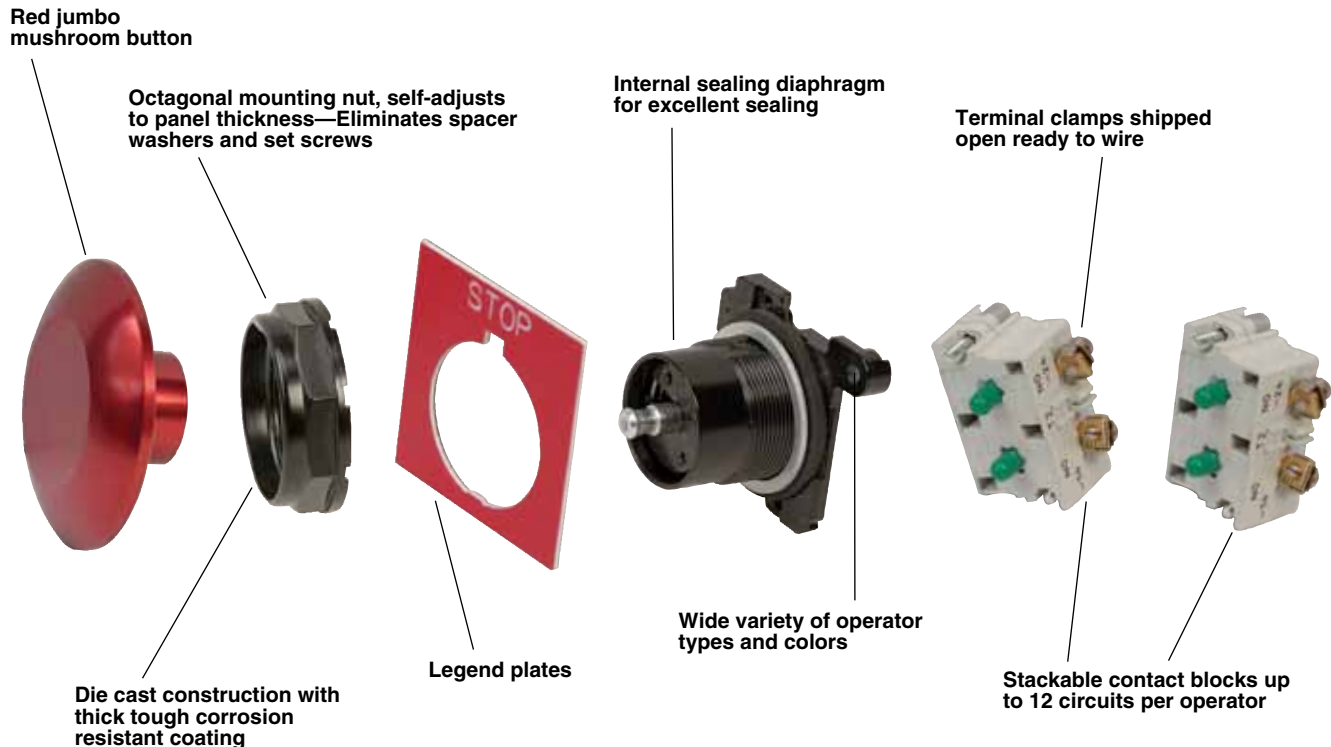


E34SP34

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10250T2



E34 Series

## SPECIFICATIONS

### MECHANICAL RATINGS FREQUENCY OF OPERATION

**All Pushbuttons:** 6000 operations/hr  
**Key and Lever Selector Switches:** 3000 operations/hr

**Auto-Latch Devices:**  
 1200 operations/hr life

**Pushbuttons:** 10 x 10<sup>6</sup> operations

**Contact Blocks:** 10 x 10<sup>6</sup> operations

**PreTest Units:** 10 x 10<sup>6</sup> operations

**Lever and Key Selector Switches:**  
 0.25 x 10<sup>6</sup> operations

**Twist to Release Pushbuttons:**  
 0.3 x 10<sup>6</sup> operations

**Shock Resistance Duration:**  
 210 mS >= 5g

### CLIMATE CONDITIONS

**Operating Temperature:** -17 to 66°C (1 to 150°F)

**Storage Temperature:** -40 to 80°C (-40 to 176°F)

**Altitude:** 6,562' (2,000 m)

**Humidity:** Max. 95% RH @ 60°C

**Insulation:** U<sub>i</sub> = 660 VAC or DC

**Thermal:** I<sub>th</sub> = 10A

### SHORT CIRCUIT COORDINATION TO IEC/EN 60947-5-1

**Rated Conditional Short Circuit Current:** 1 kA

**Fuse Type:** GE Power Controls TIA 10, Red Spot Type gG, 10A, 660 VAC, 460 Vdc, BS88-2, IEC 60269-2-1

**UL Rating:** A600, P600 AC load life duty cycle

**1200 Operations/Hour – 10A:** 110V pf 0.4 – 1 x 10<sup>6</sup> operations – **5A:** 250V pf 0.4 – 1 x 10<sup>6</sup> Operations

**2A:** 660V pf 0.4 – 1 x 10<sup>6</sup> operations  
 Switching capacity AC15 rated make/break (1.1 x I<sub>e</sub> at 1.1 x U<sub>e</sub>)

**6A:** 120V pf 0.3, 4A: 240V pf 0.3

**2A:** 660V pf 0.3 DC13 rated make/break (1.1 x I<sub>e</sub> at 1.1 x U<sub>e</sub>)

**1.0A:** 125V L/R >= 0.95 at 300 mS

**0.55A:** 250V L/R >= 0.95 at 300 mS

**0.1A:** 660V L/R >= 0.95 at 300 mS

**10A:** 110V pure resistive Maximum ratings for logic level and hostile atmosphere application

**Maximum Amperes:** 0.5A

**Maximum Volts:** 120 VAC/dc

**Low Voltage Switching:** Conical shaped points or "reliability nibs" improve performance in dry circuit, corrosive, fine dust and other

contaminated atmospheres. Under normal environmental conditions, the minimum operational voltage is 5V and the minimum operational current is 1 mA, AC/DC.

**Contact Operation:** Slow make and break. All normally closed contacts have positive opening operation, i.e., normally closed contacts are forced open in the event of contact weld or spring breakage.

### LIGHT UNITS

**Transformers:** will withstand short circuit for 1 hour per IEC 60947-5-1  
 Bulbs—average life:

**Transformer Type:** 20,000 hrs.

**Resistor/Direct Voltage Type:** 2500 hrs minimum @ rated V

**LED:** 60,000 to 100,000 hrs

### TERMINALS

**Marking:** NC-NO on the contact block to meet the NEMA requirements. Dual marking system 1 to 2 for normally closed, 3 to 4 for normally open to meet BS5472 (Cenelec EN50 005).

**Clamps:** Terminals are saddle clamp type for 1 x 22 AWG (0.34 mm<sup>2</sup>) to 2 x 14 AWG (2.5 mm<sup>2</sup>) conductors. Torque = 7 lb-in (0.8 Nm) Degree of protection against direct electrical contact: IP2X with fingerproof shroud



All models shown smaller than actual size.

## To Order

### E34 OPERATORS

MODEL NO.	DESCRIPTION
E34EB2	Red extended pushbutton operator
E34JB2	Red JUMBO mushroom head operator
E34JB2N8	E-STOP mushroom operator
E34LB2	Red mushroom head operator
E34PB1	Black flush pushbutton operator
E34PB3	Green flush pushbutton operator

Includes instruction sheet

Ordering Example: E34EB2, red extended pushbutton operator.



All models shown smaller than actual size.

## To Order

### ILLUMINATED PUSHBUTTONS AND INDICATING LIGHTS

MODEL NO.	DESCRIPTION
E34RB120	120V full voltage/resistor type, no lens
E34RPB120	PresTest 120V full voltage/resistor type, no lens
E34SB120	Illuminated pushbutton operator 120V, no lens
E34TB120	120V transformer type, no lens
E34TPB120	PresTest 120V transformer type, no lens

Includes instruction sheet

Ordering Example: E34RB120, 120V full voltage/resistor type, no lens.



E34G2



E34G3



E34G5



E34G9



E34H2



E34H3



E34H5



E34H9



E34P2



E34P3



E34P9



E34V3



E34V2



E34V9

All models shown smaller than actual size.

## To Order

### E34 LENS FOR INDICATING LIGHTS

MODEL NO.	DESCRIPTION
E34G2	RED, glass (for indicating lights)
E34G3	GREEN, glass (for indicating lights)
E34G5	WHITE, glass (for indicating lights)
E34G9	AMBER, glass (for indicating lights)
E34H2	RED, plastic (for indicating lights)
E34H3	GREEN, plastic (for indicating lights)
E34H5	WHITE, plastic (for indicating lights)
E34H9	AMBER, plastic (for indicating lights)
E34P2	RED, glass (for PresTest or illuminated pushbuttons)
E34P3	GREEN, glass (for PresTest or illuminated pushbuttons)
E34P9	AMBER, glass (for PresTest or illuminated pushbuttons)
E34V2	RED, plastic (for PresTest or illuminated pushbuttons)
E34V3	GREEN, plastic (for PresTest or illuminated pushbuttons)
E34V9	AMBER, plastic (for PresTest or illuminated pushbuttons)

Includes instruction sheet

Ordering Example: E34G2, RED, glass (for indicating lights).



E34C2



E34C2N8



E34J2



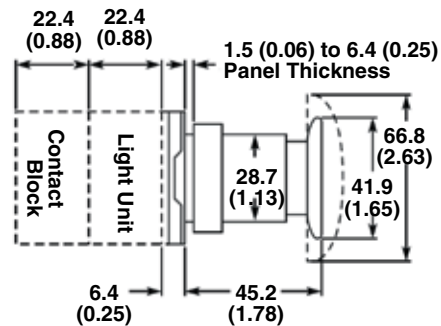
E34J2N8



E34M2



E34M2N8



Dimensions: mm (in)

All models shown smaller than actual size.

## To Order

### E34 PUSHBUTTONS - HEAD AND LENS

MODEL NO.	DESCRIPTION
E34C2	Red Button for non-illuminated Push-Pull
E34C2N8	Red (EMERGENCY STOP) for non-illuminated Push-Pull
E34J2	Red jumbo mushroom head for non-illuminated Push-Pull
E34J2N8	Red jumbo mushroom head (EMERGENCY STOP) for non-illuminated Push-Pull
E34M2	Red lens for illuminated Push-Pull
E34M2N8	Red (EMERGENCY STOP) lens for illuminated Push-Pull

Includes instruction sheet

Ordering Example: E34C2, red button for non-illuminated Push-Pull.



E34KFB1



E34KGB4



E34VFBK1



E34VFBL1

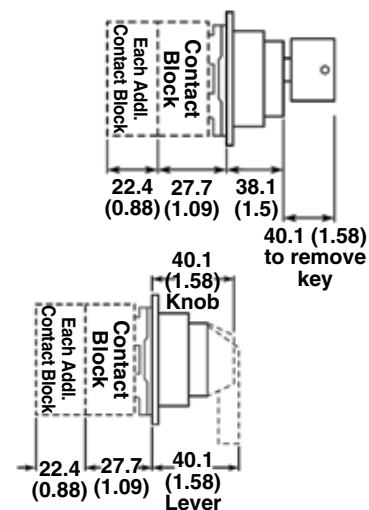


E34VGBK1



E34VGBL1

All models shown smaller than actual size.



Dimensions: mm (in)

## To Order

### E34 SELECTOR SWITCHES

MODEL NO.	DESCRIPTION
E34KFB1	2 position maintained selector switch - keyed
E34KGB4	3 position maintained selector switch - keyed
E34VFBK1	2 position maintained selector switch - knob
E34VFBL1	2 position maintained selector switch - lever
E34VGBK1	3 position maintained selector switch - knob
E34VGBL1	3 position maintained selector switch - lever

Includes instruction sheet

Ordering Example: E34KFB1, 2 position maintained selector switch - keyed.



E34VFBK1-X1



E34VHBL1-Y2

All models shown smaller than actual size.

## To Order

### E34 COMMON COMPLETE DEVICES (INCLUDES CONTACT BLOCKS)

MODEL NO.	DESCRIPTION
E34VFBK1-X1	ON-OFF switch (Black knob switch c/w NO/NC contact block)
E34VHBL1-Y2	H-O-A switch (Black lever switch c/w 2 NO/2 NC contact blocks)

Includes instruction sheet

Ordering Example: E34VFBK1-X1, ON-OFF switch.



10250T2



10250T1



10250T3

All models shown smaller than actual size.



10250T51



10250T53

## To Order

### CONTACT BLOCKS

MODEL NO.	DESCRIPTION
10250T1	Contact block, 1 NO/1 NC
10250T2	Contact block, 2 NO
10250T3	Contact block, 2 NC
10250T51	Contact block, 1 NC
10250T53	Contact block, 1 NO

Includes instruction sheet

Ordering Example: 10250T1, contact block, 1 normally open, 1 normally closed.