30.5 mm RUGGED PUSHBUTTONS

than actual size.

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



E34PB1



E34PB3

All models shown smaller



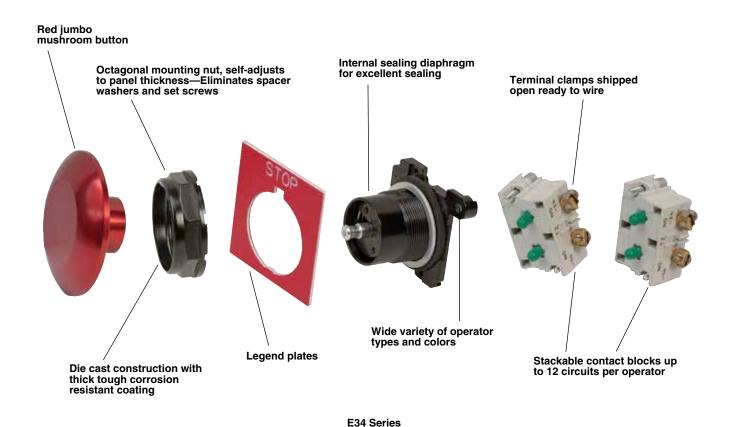
The E34 Series 30.5 mm pushbutton line features the same rugged die cast construction of our 10250T line with an additional two layer 100% solid thermosetting cathodic epoxy coating. This coating provides a flat black smooth, consistent, corrosion resistant surface that has passed a demanding 600 hour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

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.





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 106 operations Contact Blocks: 10 x 106 operations PresTest Units: 10 x 106 operations

Lever and Kev Selector Switches:

0.25 x 106 operations

Twist to Release Pushbuttons: 0.3 x 106 operations

Shock Resistance Duration: 210 mS >= 5q

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: Ui = 660 VAC or DC

Thermal: Ith = 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, B\$88-2, IEC 60269-2-1

UL Rating: A600, P600 AC load life duty cycle

1200 Operations/Hour - 10A: 110V pf 0.4 - 1 x 106 operations - 5A: 250V pf

 $0.4 - 1 \times 106$ Operations

2A: 660V pf $0.4 - 1 \times 106$ operations Switching capacity AC15 rated make/

break (11 x le at 1.1 x Ue) **6A:** 120V pf 0.3, 4A: 240V pf 0.3

2A: 660V pf 0.3 DC13 rated make/break

(1.1 x le at 1.1 x Ue)

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 mm2) to 2 x 14 AWG (2.5 mm2) conductors. Torque = 7 lb-in (0.8 Nm) Degree of protection against direct electrical contact: IP2X with fingerproof shroud



| 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.



| 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.



| 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).



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. E34VFBK1 E34KGB4 E34KFB1 22.4 27.7 (0.88) (1.09) 38.1 (1.5)40.1 (1.58) to remove 40.1 All models shown smaller than actual size. key (1.58)<u> Knob</u> Contac Block |_{22.4}|-27.7| (0.88) (1.09) (1.58) Lever E34VFBL1 E34VGBL1 E34VGBK1 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.





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.







All models shown smaller than actual size.





| 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.