# 30.5 mm RUGGED PUSHBUTTONS 

All models shown smaller than actual size.

\author{

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


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 4 X 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 600 V . 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

## Build Your Own System



E34JB2


E34SP34
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.

## All models

shown smaller than actual size.


Red jumbo
mushroom button


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: $10 \times 106$ operations
Contact Blocks: $10 \times 106$ operations
PresTest Units: $10 \times 106$ operations
Lever and Key Selector Switches:
$0.25 \times 106$ operations
Twist to Release Pushbuttons:
$0.3 \times 106$ operations
Shock Resistance Duration:
$210 \mathrm{mS}>=5 \mathrm{~g}$
CLIMATE CONDITIONS
Operating Temperature: -17 to $66^{\circ} \mathrm{C}$ ( 1 to $150^{\circ} \mathrm{F}$ )
Storage Temperature: -40 to $80^{\circ} \mathrm{C}$
(-40 to $176^{\circ} \mathrm{F}$ )
Altitude: $6,562^{\prime}(2,000 \mathrm{~m})$
Humidity: Max. $95 \%$ RH @ $60^{\circ} \mathrm{C}$
Insulation: Ui = 660 VAC or DC
Thermal: Ith = 10A

## SHORT CIRCUIT COORDINATION

 TO IEC/EN 60947-5-1Rated 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 $0.4-1 \times 106$ operations $-5 \mathrm{~A}: 250 \mathrm{~V}$ pf $0.4-1 \times 106$ Operations
2A: 660V pf $0.4-1 \times 106$ operations Switching capacity AC15 rated make/ break ( 11 xle 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: $125 \mathrm{~V} / \mathrm{R}>=0.95$ at 300 mS
$0.55 \mathrm{~A}: 250 \mathrm{~V} / \mathrm{R}>=0.95$ at 300 mS
0.1A: 660 V L/R $>=0.95$ at 300 mS

10A: 110 V pure resistive Maximum ratings for logic level and hostile atmosphere application
Maximum Amperes: 0.5 A
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 5 V and the minimum operational current is $1 \mathrm{~mA}, \mathrm{AC} / D C$.
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 $1 \times 22$ AWG ( 0.34 mm 2 ) to $2 \times 14$ AWG ( 2.5 mm 2 ) conductors. Torque $=7 \mathrm{lb}$-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.


All models shown smaller than actual size.


E34RPB120


| 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



E34P2


E34V3


E34P3


E34V2

All models shown smaller than actual size.

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| 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




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 illumerated Push-Pull |
| E34M2N8 | Red (EMERGENCY STOP) lens for illuminated Push-Pull |

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


| 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.

| 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.


| To Order |  |
| :--- | :--- |
| CONTACT BLOCKS |  |
| MODEL NO. | DESCRIPTION |
| $\mathbf{1 0 2 5 0 T 1}$ | Contact block, 1 NO/1 NC |
| $\mathbf{1 0 2 5 0 T 2}$ | Contact block, 2 NO |
| $\mathbf{1 0 2 5 0 T 3}$ | Contact block, 2 NC |
| $\mathbf{1 0 2 5 0 T 5 1}$ | Contact block, 1 NC |
| $\mathbf{1 0 2 5 0 T 5 3}$ | Contact block, 1 NO |

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

