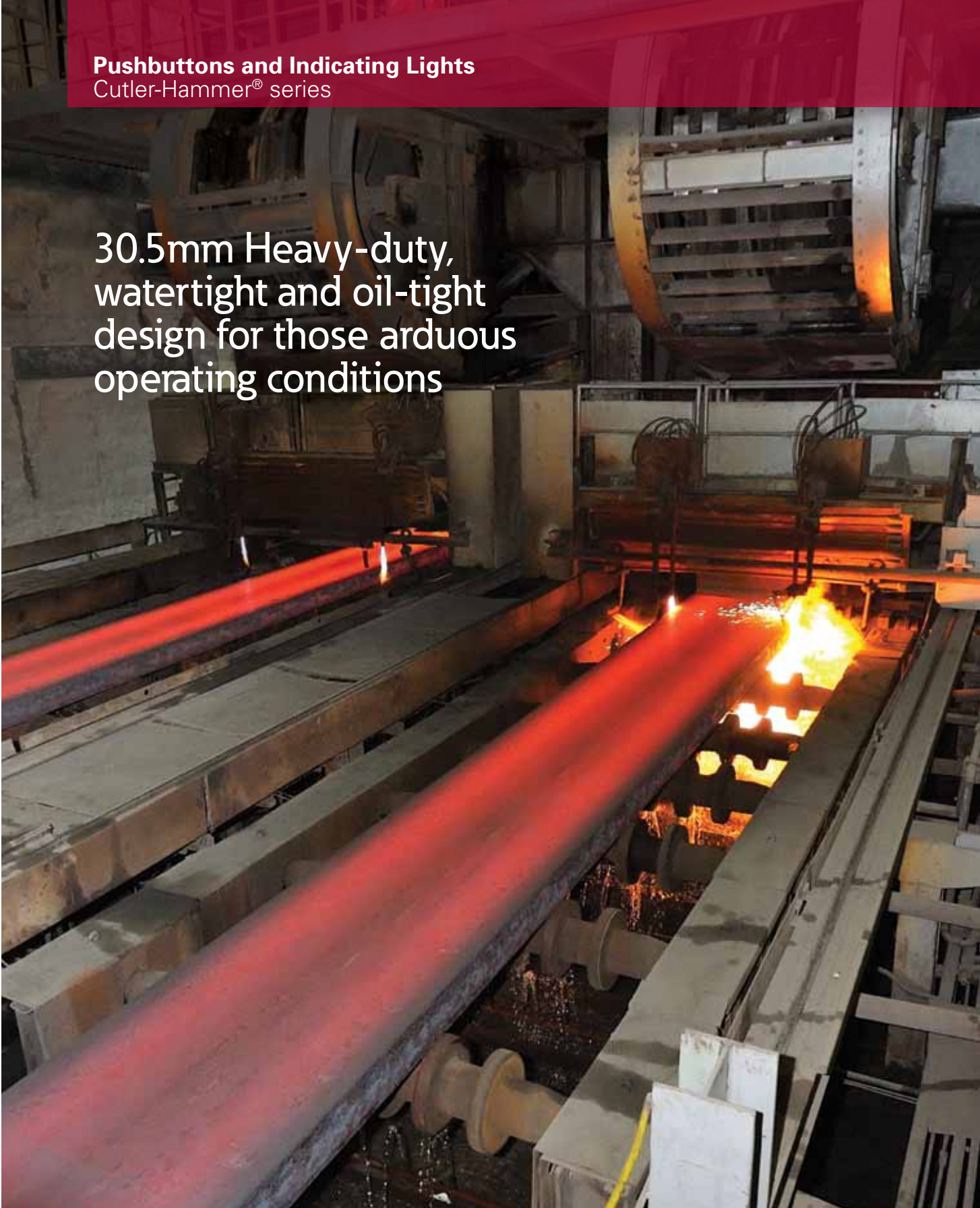


Pushbuttons and Indicating Lights
Cutler-Hammer® series

30.5mm Heavy-duty,
watertight and oil-tight
design for those arduous
operating conditions



EATON

Powering Business Worldwide



Aerospace



Truck



Powering business worldwide

Discover Eaton – a leader in the power management field

Since 1911, when our company began trading as a small truck parts supplier, Eaton® Corporation has come a long way. Today, as a diversified power management company, Eaton has sales of \$11.9 billion USD (FY 2009), employs 70,000 people and has customers in more than 150 countries. Everyday, we help companies across the world to manage power, and do more, while consuming less energy.

Eaton's innovative products, solutions and technologies are designed to help customers to manage power and conserve resources while working more productively, safely and sustainably. Our integrated and diversified business strategy ensures that we remain at the forefront of our industry, decade after decade.

Aerospace

A leading global supplier to commercial and military aviation and aerospace industries. An extensive technology portfolio includes hydraulic systems, fuel systems, motion control systems, propulsion sub-systems, cockpit controls and displays and fluid health monitoring systems. Our products improve fuel economy, aircraft performance, reliability and safety.

Truck

A leader in the design, manufacture and marketing of complete line of drivetrain systems and components for medium- and heavy-duty commercial vehicles. Under the "Roadranger" brand, Eaton also markets lubricants, safety products and service tools. Eaton's hybrid power systems have earned the company recognition as a global leader in alternative power for commercial vehicles.

Electrical

A global leader in electrical control, power distribution, uninterruptible power supply and industrial automation products and services. Our products provide customer-driven PowerChain Management® solutions to serve the power system needs of the industrial, institutional, government, utility, commercial, residential, IT, mission critical and OEM markets worldwide.



Powering Business Worldwide



Electrical



Automotive



Hydraulics

Powering business more sustainably

Sustainability – smaller footprint in the world

The principle of sustainability means meeting the current needs of our own society without compromising the needs or options of future generations. It is a principle, which forms the very core of our design and production philosophy and guides all our activities across the world. Our commitment to reducing our own ecological footprint covers a wide range of green technologies, products and services that help our customers utilise electrical power more efficiently, while improving environmental performance.

Eaton has been recognised throughout the world for its uncompromising business ethics. For example, it was listed as one of the 'World's Most Ethical Companies' on the Ethisphere Institute's annual list for three consecutive years (2007, 2008 and 2009).

Automotive

A supplier of critical components that reduce emissions and fuel consumption and improve stability and performance of cars, light trucks and commercial vehicles. Principal products include engine valves and valve train components, transmission and engine controls, supercharger, locking and limited slip differentials, cylinder heads, fluid conveyance components, body mouldings and spoilers.

Hydraulics

A worldwide leader in reliable, high-efficiency hydraulic systems and components for use in mobile and industrial applications. Markets include agriculture, construction, mining, forestry, utility, material handling, earth moving, truck and bus, machine tools, moulding, primary metals, automotive, power generation, port machinery and entertainment.



An Eaton Green Solution

Learn more about Eaton Green Solutions at www.eaton.com/greensolutions

When you see this symbol, you know the solution represents an Eaton benchmark for environmental performance.



Complete coverage of the market – worldwide in all standards

Local market leader with global competence

Eaton's product series are distinguished by their strong presence in all regions of the world. In markets that adhere to IEC standards, Eaton's Moeller® series is very well established, and in the world of UL/CSA, Eaton is a key player, for example with its Cutler-Hammer® series. Now all customers are benefiting from first-rate engineering and the combined know-how in research and development – no matter which standards they use.

South Africa

Eaton acquired the CHI Control business through the acquisition of Actom Low Voltage, South Africa in July 2011. In terms of organisation, product and production techniques, CHI Control is being fully integrated into Eaton, adopting the Eaton Business System, a single system covering work processes, tools and tooling. The CHI Control logo is now being replaced by the Eaton logo on product rating and carton labels and associated marketing materials with a phased completion date of 1 July 2013. The CHI Control name and logo remain registered trademarks of Eaton Corporation.



30.5 mm Heavy-Duty Watertight/Oiltight—10250T



The 30.5 mm pushbutton line features a zinc die cast construction with chrome-plated housing and mounting nut.

Features

- Heavy-duty zinc die cast construction
- Enclosed silver contacts with reliability nibs
- Diaphragm seals with drainage holes
- Grounding nibs on the operator casing

Benefits

- Reliability nibs improve contact reliability even under dry circuit and fine dust conditions
- Drainage holes prevent buildup of liquid inside the operator which can prevent operation in freezing environments
- Grounding nibs bit through paint and other coatings to provide secure ground

Contents

| Description | Page |
|---|------|
| 1 30.5 mm Heavy-Duty Watertight/Oiltight—10250T | |
| 1.1 Product Overview | 6 |
| 1.2 Product Identification | 7 |
| 1.3 Catalogue Number Selection | 8 |
| 1.4 Product Selection | |
| Non-Illuminated Momentary Pushbutton Units | 10 |
| Pushbuttons | 11 |
| Illuminated Momentary Pushbutton Units | 15 |
| Indicating Light Units | 16 |
| Illuminated Pushbuttons and Indicating Lights | 17 |
| Push-Pull Emergency Stop | 19 |
| Illuminated Push-Pull Units | 22 |
| Potentiometers | 25 |
| Push-Pull Operators | 26 |
| Selector Switch Units | 30 |
| Selector Switch Selection | 31 |
| Selector Switch Operators | 34 |
| Illuminated Selector Switch Operators | 37 |
| Joystick Units | 38 |
| Joysticks | 39 |
| Roto-Push Units | 42 |
| Roto-Push Operators | 43 |
| 1.5 Accessories | 48 |
| 1.6 Options | 53 |
| 1.7 Replacement Parts | 62 |
| 1.8 Technical Data and Specifications | 64 |
| 1.9 Dimensions | 67 |



Product Description

Application Description

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.

Standards and Certifications

- CE EN 60947-5-1 and 60947-5-5
- UL 508—File No. 131568
- CSA C22.2 No. 14—File No. LR68551



Ingress Protection

When mounted in similarly rated enclosure—

- Standard indicating lights
 - UL (NEMA) Type 1, 2, 3, 3R, 3S, 4, 4X, 12, 13
 - IEC IP65
- All other operators
 - UL (NEMA) Type 1, 2, 3, 3R, 4, 4X, 12, 13
 - IEC IP65

1.1

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

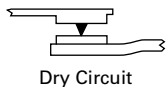
1

Product Overview

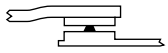
Reliability Nibs

Eaton's 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.

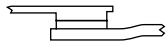
Reliability Nibs



Dry Circuit



Medium Duty



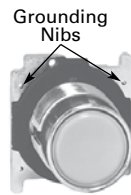
Heavy-Duty

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. For operation under a wider range of environmental conditions, logic level contact blocks with inert palladium tipped contacts are recommended.

Grounding Nibs

10250T line operators have "grounding nibs"—four metal points on the operator casting designed to bite through most paints and other coatings on metal panels to enhance the ground connection when the operator is securely tightened.

Grounding Nibs

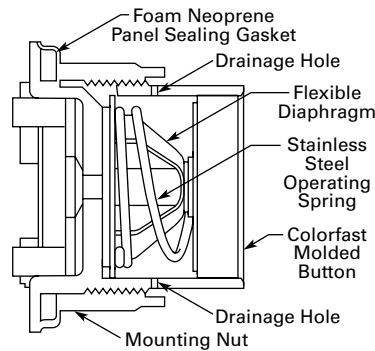


Diaphragm Seal with Drainage Holes

Liquid Drainage

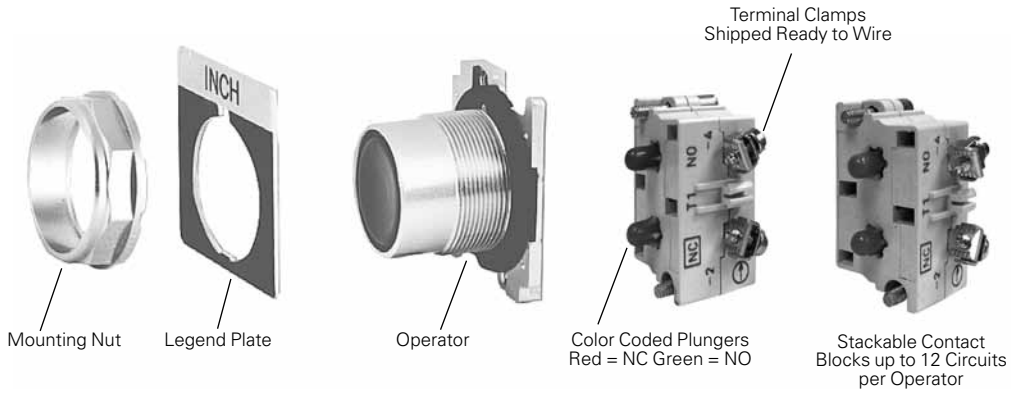
Eaton's pushbutton operators offer front of panel drainage via holes in the operator bushing. Hidden from view by the mounting nut, these holes prevent buildup of liquid inside the operator, which can prevent operation in freezing environments. The holes also provide a route for escaping liquid in high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

Diaphragm Seal



Product Identification

30.5 mm Heavy-Duty Watertight/Oiltight—10250T Series



1.3

Pushbuttons and Indicating Lights

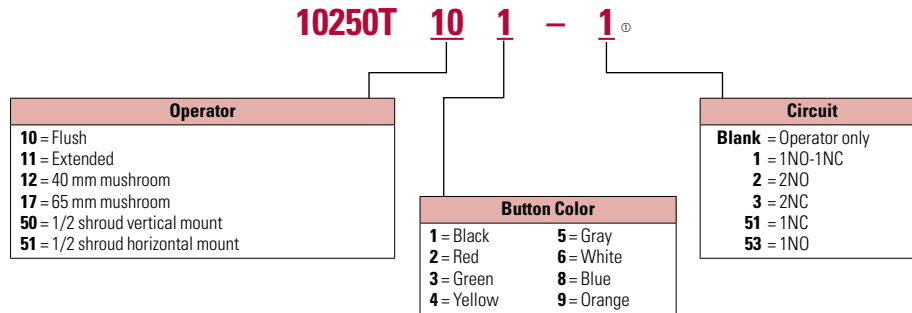
30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

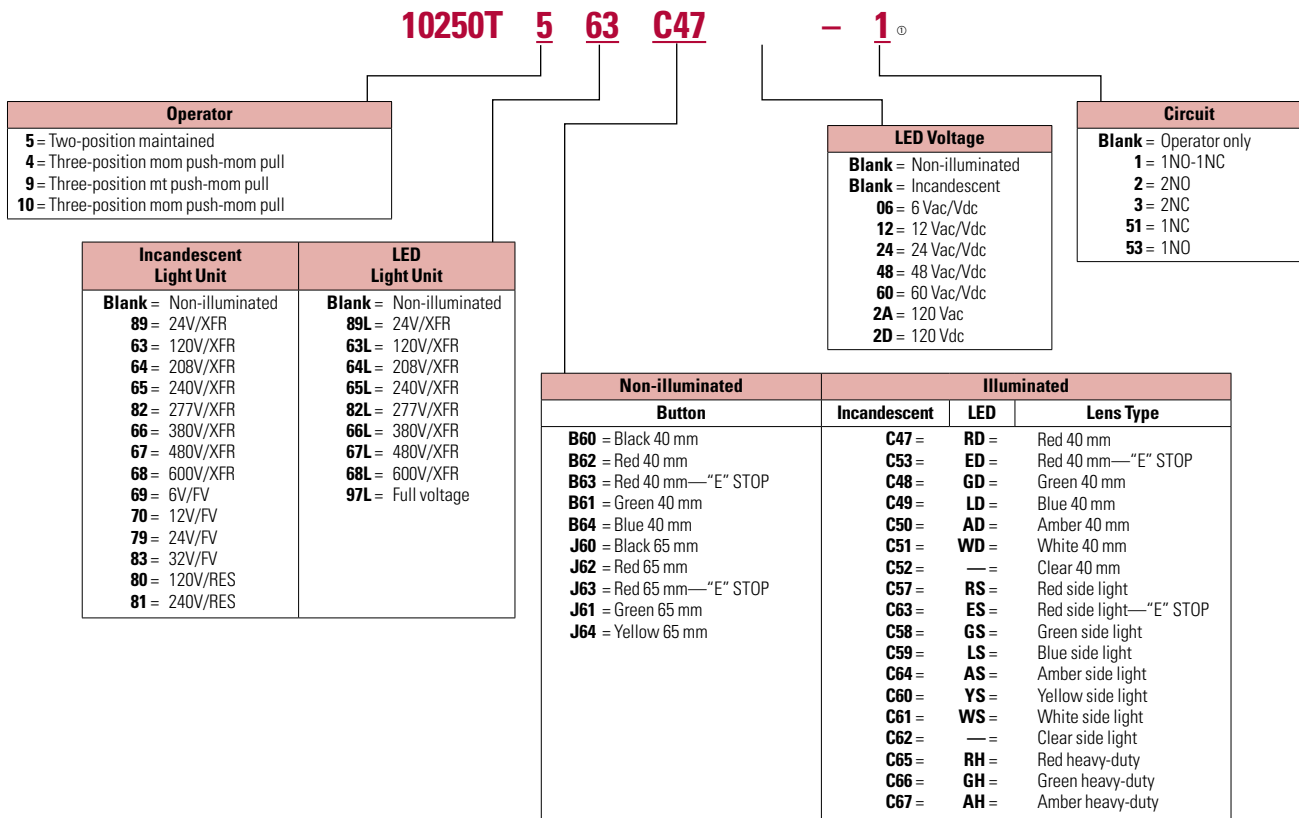
Catalog Number Selection

Catalog Number Selection is for illustrative purposes only and not to be used to create new Eaton part numbers.

Non-Illuminated Pushbuttons



Illuminated and Non-Illuminated Push-Pulls



Note

Ⓞ Add **X** at end of Eaton Part Number to receive parts assembled from factory.

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

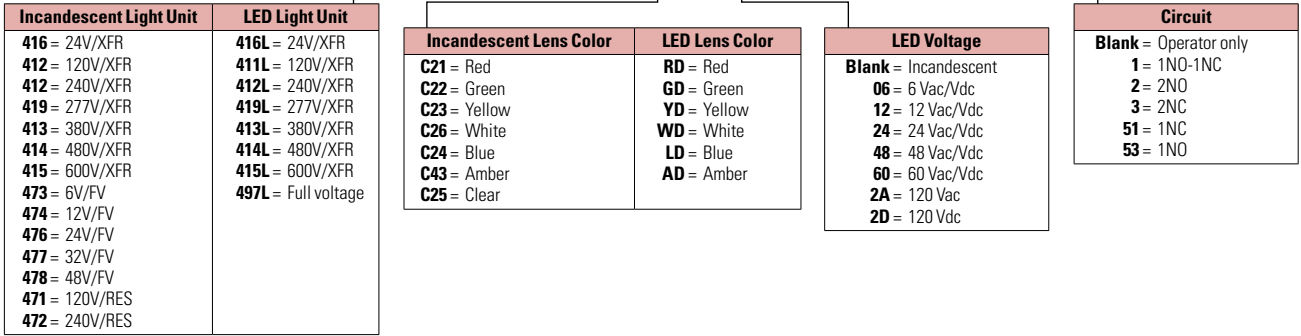
1.3

1

Catalog Number Selection is for illustrative purposes only and not to be used to create new Eaton part numbers.

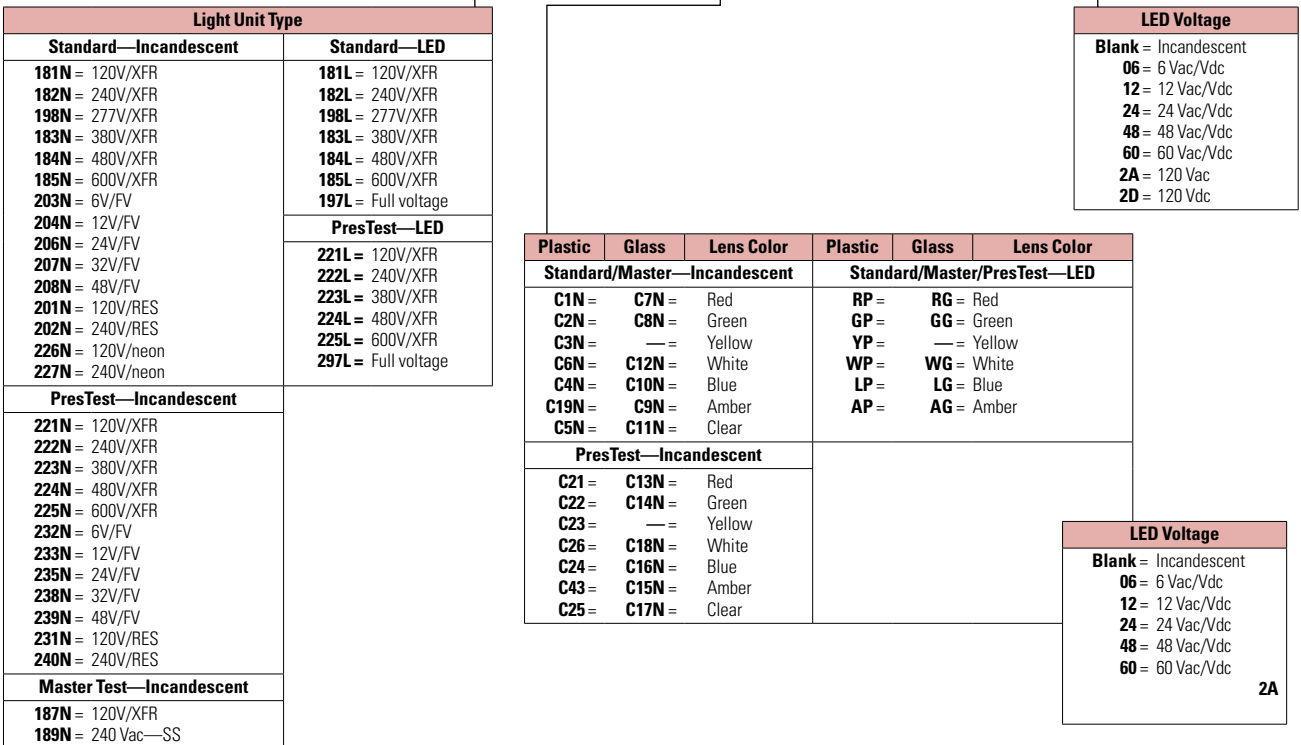
Illuminated Pushbuttons

10250T 416 C21 - 1[Ⓞ]



Standard Indicating Lights, PresTest and Master Test

10250T 203N C1N -[Ⓞ]



Note

Ⓞ Add X at end of Eaton part number to receive parts assembled from factory.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Product Selection

Non-Illuminated Momentary Pushbutton Units

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Flush Button



Extended Button



Mushroom Button



Jumbo Mushroom



Pushbutton Units—Flush, Extended, Mushroom Head or Jumbo Mushroom Head Operators

| Contact Type | Button Color | Flush Button Part Number | Extended Button Part Number | Mushroom Button Part Number | Jumbo Mushroom [Ⓞ] Part Number |
|--------------|--------------------------|--------------------------|-----------------------------|-----------------------------|---|
| 1NO | Black | 10250T23B | 10250T25B | 10250T26B | 10250T27B |
| | Red | 10250T23R | 10250T112-53 | 10250T122-53 | 10250T172-53 |
| | Green | 10250T23G | 10250T25G | 10250T26G | 10250T27G |
| | Yellow | 10250T23Y | 10250T25Y | 10250T26Y | 10250T27Y |
| | Red—Engraved EMERG. STOP | — | — | — | 10250T17213-53 |
| 1NC | Black | 10250T101-51 | 10250T111-51 | 10250T121-51 | 10250T171-51 |
| | Red | 10250T102-51 | 10250T25R | 10250T26R | 10250T27R |
| | Green | 10250T103-51 | 10250T113-51 | 10250T123-51 | 10250T173-51 |
| | Yellow | 10250T104-51 | 10250T120-51 | 10250T124-51 | 10250T174-51 |
| | Red—Engraved EMERG. STOP | — | — | — | 10250T29 |
| 1NO-1NC | Black | 10250T30B | 10250T31B | 10250T32B | 10250T33B |
| | Red | 10250T30R | 10250T31R | 10250T32R | 10250T33R |
| | Green | 10250T30G | 10250T31G | 10250T32G | 10250T33G |
| | Yellow | 10250T30Y | 10250T31Y | 10250T32Y | 10250T33Y |
| | Red—Engraved EMERG. STOP | — | — | — | 10250T33 |
| 2NO | Black | 10250T101-2 | 10250T111-2 | 10250T121-2 | 10250T171-2 |
| | Red | 10250T102-2 | 10250T112-2 | 10250T122-2 | 10250T172-2 |
| | Green | 10250T103-2 | 10250T113-2 | 10250T123-2 | 10250T173-2 |
| | Yellow | 10250T104-2 | 10250T120-2 | 10250T124-2 | 10250T174-2 |
| | Red—Engraved EMERG. STOP | — | — | — | 10250T17213-2 |
| 2NC | Black | 10250T101-3 | 10250T111-3 | 10250T121-3 | 10250T171-3 |
| | Red | 10250T102-3 | 10250T112-3 | 10250T122-3 | 10250T172-3 |
| | Green | 10250T103-3 | 10250T113-3 | 10250T123-3 | 10250T173-3 |
| | Yellow | 10250T104-3 | 10250T120-3 | 10250T124-3 | 10250T174-3 |
| | Red—Engraved EMERG. STOP | — | — | — | 10250T17213-3 |







Note

[Ⓞ] Anodized aluminum head is not suitable for use in ultraviolet light applications.

Pushbuttons

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Momentary Pushbutton Operators, Non-illuminated

| Button | Color | Eaton Part Number | | |
|--|---|----------------------|----------------------|------------------|
| | | Vertical | Horizontal | |
| 10250T10_  | Flush button [Ⓞ] | Black | 10250T101 | |
| | Red | 10250T102 | | |
| | Green | 10250T103 | | |
| | Yellow | 10250T104 | | |
| | Gray | 10250T105 | | |
| | White | 10250T106 | | |
| | Blue | 10250T108 | | |
| | Orange | 10250T109 | | |
| | 10250T11_  | Extended button | Black | 10250T111 |
| Red | | 10250T112 | | |
| Green | | 10250T113 | | |
| Yellow | | 10250T120 | | |
| White | | 10250T116 | | |
| Blue | | 10250T118 | | |
| Orange | | 10250T119 | | |
| 10250T5_  | | Half shrouded button | Black | 10250T501 |
| | | Red | 10250T502 | 10250T511 |
| | Green | 10250T503 | 10250T512 | |
| | Yellow | 10250T504 | 10250T513 | |
| | Gray | 10250T505 | 10250T514 | |
| | White | 10250T506 | 10250T515 | |
| | Blue | 10250T508 | 10250T516 | |
| | Orange | 10250T509 | 10250T517 | |
| | 10250T12_  | Mushroom button | Black | 10250T121 |
| Red | | 10250T122 | | |
| Green | | 10250T123 | | |
| Yellow | | 10250T124 | | |
| Blue | | 10250T129 | | |
| 10250T17_  | Jumbo mushroom button [Ⓞ] | Black | 10250T171 | |
| | Red | 10250T172 | | |
| | Red (EMERG. STOP) | 10250T17213 | | |
| | Green | 10250T173 | | |
| | Yellow | 10250T174 | | |
| 10250ED1164_  | Low operating force—jumbo mushroom ^{ⓄⓈ} | Black | 10250ED1164-2 | |
| | Red | 10250ED1164-3 | | |
| | Green | 10250ED1164-4 | | |
| | Yellow | 10250ED1164-5 | | |
| | Clear | 10250ED1164 | | |

Note: To order complete assembled unit using one composite Catalogue number, add contact block and legend plate suffix to the end of operator Catalogue number. Example: 10250T101-1TS33



Operator
10250T101

+



Contact Block
10250T1

+



Legend Plate
10250TS33

Notes

- Ⓞ To order operator with factory assembled extended retaining nut, **10250TA12**, for thick panel applications, add suffix letter **E** to listed Eaton part number. Example: 10250T101E.
- Ⓢ Anodized aluminum head is not suitable for use in ultraviolet light applications.
- Ⓢ Operating force—Standard = 2.4 lb; low force = 1.6 lb.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Mechanically Interlocked Pushbutton Operators

10250TA_



| Description | Eaton Part Number |
|---|------------------------|
| Black flush and green flush | 10250TA66 |
| Black flush and long red | 10250TA67 |
| Black flush and red mushroom head | 10250TA68 |
| Black flush and lock-down red mushroom head | 10250TA69 [Ⓞ] |
| Black flush and red jumbo mushroom head | 10250TA76 |
| Green flush and long red | 10250TA72 |
| Black long and long red | 10250TA73 |
| Green flush and red mushroom head | 10250TA77 |
| Green flush and black flush | 10250TA75 |

Note

[Ⓞ] NC contacts must be mounted behind lock-down mushroom head operator to ensure lockout.

Lockout Pushbutton Operators with Padlock Attachments

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

The following pushbutton and mushroom operators include an integral padlock attachment for applications requiring lockout/tagout of specific machine functions. They are available in styles which allow locking of a button in the down position

(stopped position) or locking a button in the up position (to prevent starting). Select the “**Hand**” latch type which functions as a momentary pushbutton until the operator presses the button and moves the padlock attachment into

position for locking, or choose the “**Spring Loaded**” latch type where the padlock attachment springs into place when the button is pressed. Units accept a customer supplied 1/4 in padlock.

Padlockable in the Down Position [Ⓞ]

10250TA16



| Operator Type | Color | Latch Type | Eaton Part Number |
|-------------------------|-------------------|---------------|-------------------|
| Flush head | Red | Hand | 10250TA16 |
| Mushroom head | Red | Hand | 10250TA42 |
| | Red | Spring loaded | 10250TA45 |
| Jumbo head [Ⓞ] | Red | Hand | 10250TA52 |
| | Red | Spring loaded | 10250TA55 |
| | Red (EMERG. STOP) | Spring loaded | 10250ED952 |

Padlockable in the Up Position [Ⓞ]

10250TA4_



| Operator Type | Color | Latch Type | Eaton Part Number |
|---------------|-------|------------|-------------------|
| Mushroom head | Black | Hand | 10250TA41 |
| | Green | Hand | 10250TA43 |

10250TA5_



| Operator Type | Color | Latch Type | Eaton Part Number |
|----------------------------------|--------|------------|-------------------|
| Jumbo mushroom head [Ⓞ] | Black | Hand | 10250TA51 |
| | Green | Hand | 10250TA53 |
| | Yellow | Hand | 10250TA54 |

Notes

Hand attachment must be manually moved into place for locking. Spring loaded: when operator is pressed—attachment springs into place. Must be moved manually to release button.

- [Ⓞ] Operators can be latched down without a padlock. Padlock not included.
- [Ⓞ] Jumbo mushroom heads are not recommended for use in applications where exposure to ultraviolet light exists.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Key Pushbutton Operator

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

These devices incorporate an integral locking mechanism which enables locking units in various positions (**Locked Down**), locking units to

prevent operation (**Locked Up**) or setting unit to lock when the button is pressed (**Push to Lock**), requiring the key to be inserted to return to

normal operation. With the key in the center position, these operators function as a normal momentary pushbutton (**Free**).

Replacement Keys or Dissimilar Locks for Key Operators Below

Listed operators have identical locks and keys (Key Code H661) Catalogue Number 10250ED824. For dissimilar lock and key combinations, see listing on **Page 35**.

Replacement Keys

| Description | Eaton Part Number |
|------------------------------|-------------------|
| Replacement keys (code H661) | 10250ED824 |

10250T43_



Key Pushbutton Operator



| Key Position and Pushbutton Operations | | | Key Removal Positions | Vertical Mounting [Ⓞ] Part Number |
|--|------|--------------|-----------------------|--|
| Three-Position | | | | |
| Lock up | Free | Lock down | All | 10250T430 |
| Lock up | Free | Lock down | L and R | 10250T431 |
| Lock up | Free | Lock down | C and R | 10250T432 |
| Two-Position | | | | |
| Lock up | Free | — | L and C | 10250T433 |
| Lock up | Free | — | L | 10250T434 |
| — | Free | Lock down | C and R | 10250T435 |
| — | Free | Lock down | R | 10250T436 |
| — | Free | Push to lock | C and R | 10250T437 |
| — | Free | Push to lock | R | 10250T438 |

Latch-In, Twist-to-Release Operator

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

10250ED1043-4



Operator Only with Button

| Description | Eaton Part Number |
|---|-------------------|
| Latch-in, twist-to-release operator with red mushroom head button | 10250ED1043-4 |

Note

[Ⓞ] Horizontal mounting available on request.

Illuminated Momentary Pushbutton Units

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

- LED or incandescent
- Full voltage, resistor or transformer type
- Plastic lenses

24V Full Voltage Illuminated Pushbutton



Illuminated Pushbutton Units

| Type | Voltage | Color | LED/Lamp Number | Illuminated Pushbutton | | | |
|--------------------------|-------------------|-------------|-------------------|------------------------|------------------------|------------------------|-------------------|
| | | | | 1NO Part Number | 1NO-1NC Part Number | 1NC Part Number | |
| LED Lamp | | | | | | | |
| Full voltage | 24 Vac/Vdc | Red | Bayonet base | 10250T397LRD24-53 | 10250T397LRD24-1 | 10250T397LRD24-51 | |
| | | Green | | 10250T397LGD24-53 | 10250T397LGD24-1 | 10250T397LGD24-51 | |
| | | Amber | | 10250T397LAD24-53 | 10250T397LAD24-1 | 10250T397LAD24-51 | |
| | | Yellow | | 10250T397LYD24-53 | 10250T397LYD24-1 | 10250T397LYD24-51 | |
| | | Blue | | 10250T397LLD24-53 | 10250T397LLD24-1 | 10250T397LLD24-51 | |
| | 120 Vac | White | 10250T397LWD24-53 | 10250T397LWD24-1 | 10250T397LWD24-51 | | |
| | | Red | 10250T397LRD2A-53 | 10250T397LRD2A-1 | 10250T397LRD2A-51 | | |
| | | Green | 10250T397LGD2A-53 | 10250T397LGD2A-1 | 10250T397LGD2A-51 | | |
| | | Amber | 10250T397LAD2A-53 | 10250T397LAD2A-1 | 10250T397LAD2A-51 | | |
| | | Yellow | 10250T397LYD2A-53 | 10250T397LYD2A-2 | 10250T397LYD2A-51 | | |
| | | Blue | 10250T397LLD2A-53 | 10250T397LLD2A-1 | 10250T397LLD2A-51 | | |
| | | White | 10250T397LWD2A-53 | 10250T397LWD2A-1 | 10250T397LWD2A-51 | | |
| | | Transformer | 120 Vac | Red | 10250T411LRD06-53 | 10250T411LRD06-1 | 10250T411LRD06-51 |
| | | | | Green | 10250T411LGD06-53 | 10250T411LGD06-1 | 10250T411LGD06-51 |
| | | | | Amber | 10250T411LAD06-53 | 10250T411LAD06-1 | 10250T411LAD06-51 |
| Yellow | 10250T411LYD06-53 | | | 10250T411LYD06-1 | 10250T411LYD06-51 | | |
| Blue | 10250T411LLD06-53 | | | 10250T411LLD06-1 | 10250T411LLD06-51 | | |
| | | White | 10250T411LWD06-53 | 10250T411LWD06-1 | 10250T411LWD06-51 | | |
| Incandescent Lamp | | | | | | | |
| Full voltage | 24 Vac/Vdc | Red | #757 | 10250T476C21-53 | 10250T476C21-1 | 10250T476C21-51 | |
| | | Green | | 10250T476C22-53 | 10250T476C22-1 | 10250T476C22-51 | |
| | | Amber | | 10250T476C43-53 | 10250T476C43-1 | 10250T476C43-51 | |
| | | Yellow | | 10250T476C23-53 | 10250T476C23-1 | 10250T476C23-51 | |
| | | Blue | | 10250T476C24-53 | 10250T476C24-1 | 10250T476C24-51 | |
| | | Clear | | 10250T476C25-53 | 10250T476C25-1 | 10250T476C25-51 | |
| | | White | | 10250T476C26-53 | 10250T476C26-1 | 10250T476C26-51 | |
| | Resistor | 120 Vac/Vdc | Red | 120MB | 10250T471C21-53 | 10250T471C21-1 | 10250T471C21-51 |
| | | | Green | | 10250T471C22-53 | 10250T471C22-1 | 10250T471C22-51 |
| | | | Amber | | 10250T471C43-53 | 10250T471C43-1 | 10250T471C43-51 |
| | | | Yellow | | 10250T471C23-53 | 10250T471C23-1 | 10250T471C23-51 |
| | | | Blue | | 10250T471C24-53 | 10250T471C24-1 | 10250T471C24-51 |
| | | | Clear | | 10250T471C25-53 | 10250T471C25-1 | 10250T471C25-51 |
| Transformer | 120 Vac | Red | #755 | 10250T75R [Ⓞ] | 10250T76R [Ⓞ] | 10250T77R [Ⓞ] | |
| | | Green | | 10250T75G [Ⓞ] | 10250T76G [Ⓞ] | 10250T77G [Ⓞ] | |
| | | Amber | | 10250T75A [Ⓞ] | 10250T76A [Ⓞ] | 10250T77A [Ⓞ] | |
| | | Yellow | | 10250T75Y [Ⓞ] | 10250T76Y [Ⓞ] | 10250T77Y [Ⓞ] | |
| | | Blue | | 10250T75B [Ⓞ] | 10250T76B [Ⓞ] | 10250T77B [Ⓞ] | |
| | | Clear | | 10250T75C [Ⓞ] | 10250T76C [Ⓞ] | 10250T77C [Ⓞ] | |
| | | White | | 10250T75W [Ⓞ] | 10250T76W [Ⓞ] | 10250T77W [Ⓞ] | |

Note

Ⓞ For flashing module Catalogue number 10250TFL1, add suffix code **FM** to listed Eaton part number. Example: 10250T75R**FM**.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Indicating Light Units [Ⓞ]

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

- LED or incandescent
 - Full voltage, resistor or transformer type
 - Standard and PresTest types
 - Plastic lenses
- PresTest—This device incorporates a press-to-test feature whereby depressing the lens disconnects the light from the source being monitored and connects the lamp to a continuously energized circuit for immediate detection of faulty lamps.

24V Full Voltage Illuminated Light



120 Vac Transformer PresTest



Indicating Light Units

| Type | Voltage | Color | LED/Lamp Number | Indicating Light Part Number | PresTest Part Number | | |
|--------------------------|-------------|-------------|--------------------------|------------------------------|----------------------|----------------|---------------|
| LED Lamp | | | | | | | |
| Full voltage | 24 Vac/Vdc | Red | Bayonet base | 10250T197LRP24 | 10250T297LRP24 | | |
| | | Green | | 10250T197LGP24 | 10250T297LGP24 | | |
| | | Amber | | 10250T197LAP24 | 10250T297LAP24 | | |
| | | Yellow | | 10250T197LYP24 | 10250T297LYP24 | | |
| | | Blue | | 10250T197LLP24 | 10250T297LLP24 | | |
| | | White | | 10250T197LWP24 | 10250T297LWP24 | | |
| | | 120 Vac | | Red | 10250T197LRP2A | 10250T297LRP2A | |
| | | | | Green | 10250T197LGP2A | 10250T297LGP2A | |
| | | | | Amber | 10250T197LAP2A | 10250T297LAP2A | |
| | Yellow | | 10250T197LYP2A | 10250T297LYP2A | | | |
| | Blue | | 10250T197LLP2A | 10250T297LLP2A | | | |
| | White | | 10250T197LWP2A | 10250T297LWP2A | | | |
| | Transformer | | 120 Vac | Red | 10250T181LRP06 | 10250T221LRP06 | |
| | | | | Green | 10250T181LGP06 | 10250T221LGP06 | |
| | | | | Amber | 10250T181LAP06 | 10250T221LAP06 | |
| | | Yellow | | 10250T181LYP06 | 10250T221LYP06 | | |
| | | Blue | | 10250T181LLP06 | 10250T221LLP06 | | |
| | | White | | 10250T181LWP06 | 10250T221LWP06 | | |
| Incandescent Lamp | | | | | | | |
| Full voltage | | 24 Vac/Vdc | | Red | #757 | 10250T206NC1N | 10250T235NC21 |
| | | | | Green | | 10250T206NC2N | 10250T235NC22 |
| | Amber | | 10250T206NC19N | 10250T235NC43 | | | |
| | Yellow | | 10250T206NC3N | 10250T235NC23 | | | |
| | Blue | | 10250T206NC4N | 10250T235NC24 | | | |
| | Clear | | 10250T206NC5N | 10250T235NC25 | | | |
| | White | | 10250T206NC6N | 10250T235NC26 | | | |
| | Resistor | 120 Vac/Vdc | Red | 120MB | 10250T201NC1N | 10250T231NC21 | |
| | | | Green | | 10250T201NC2N | 10250T231NC22 | |
| | | | Amber | | 10250T201NC19N | 10250T231NC43 | |
| | | | Yellow | | 10250T201NC3N | 10250T231NC23 | |
| | | | Blue | | 10250T201NC4N | 10250T231NC24 | |
| | | | Clear | | 10250T201NC5N | 10250T231NC25 | |
| | | | White | | 10250T201NC6N | 10250T231NC26 | |
| | | | Transformer [Ⓞ] | | 120 Vac | Red | #755 |
| Green | 10250T34G | 10250T74NG | | | | | |
| Amber | 10250T34A | 10250T74NA | | | | | |
| Yellow | 10250T34Y | 10250T74NY | | | | | |
| Blue | 10250T34B | 10250T74NB | | | | | |
| Clear | 10250T34C | 10250T74NC | | | | | |
| White | 10250T34W | 10250T74NW | | | | | |

Notes

- [Ⓞ] Standard indicating lights are rated UL (NEMA) 3S as well.
- [Ⓞ] For flashing lamp add letter **F** to listed Eaton part number. Example: 10250T34RF.

Illuminated Pushbuttons and Indicating Lights

- LED or incandescent
- Full voltage, resistor or transformer type

Illuminated Pushbutton



Indicating Light



PresTest



Master Test



Operators without Lens

| Type | Voltage | LED/Lamp Number | Illuminated Pushbutton Part Number | Indicating Light Part Number | PresTest Part Number | Master Test Part Number | |
|--|---------------------|-----------------|------------------------------------|------------------------------|----------------------|-------------------------|---|
| Incandescent Unit | | | | | | | |
| Full voltage AC/DC | 6 | #755 | 10250T473 | 10250T203N | 10250T232N | — | |
| | 12 | #756 | 10250T474 | 10250T204N | 10250T233N | — | |
| | 24 | #757 | 10250T476 | 10250T206N | 10250T235N | — | |
| | 32 | #1828 | 10250T477 | 10250T207N | 10250T238N | — | |
| | 48 | #1835 | 10250T478 | 10250T208N | 10250T239N | — | |
| Resistor AC/DC [Ⓞ] | 120 | 120MB | 10250T47 | 10250T201N | 10250T231N | — | |
| | 240 | 120MB | 10250T472 | 10250T202N | 10250T240N | — | |
| Transformer AC only [Ⓞ] | 24 | #755 | 10250T416 | — | — | — | |
| | 120 | | 10250T411 | 10250T181N | 10250T221N | — | |
| | 240 | | 10250T422 | 10250T182N | 10250T222N | — | |
| | 277 | | 10250T419 | 10250T198N | — | — | |
| | 380 | | 10250T413 | 10250T183N | 10250T223N | — | |
| | 480 | | 10250T414 | 10250T184N | 10250T224N | — | |
| | 600 | | 10250T415 | 10250T185N | 10250T225N | — | |
| Neon AC/DC [Ⓞ] | 120 | NE51H-R22 | — | 10250T226N | — | — | |
| | 240 | NE51H-R68 | — | 10250T227N | — | — | |
| Solid-state 50/60 Hz only | 120 | 120MB | — | — | — | 10250T189N | |
| LED (LEDs not included)[Ⓞ] | | | | | | | |
| Full voltage | — | Bayonet base | 10250T397L | 10250T197L | 10250T297L | — | |
| | Transformer AC only | | 24 | 10250T416L | — | — | — |
| | | | 120 | 10250T411L | 10250T181L | 10250T221L | — |
| | | | 240 | 10250T412L | 10250T182L | 10250T222L | — |
| | | | 277 | 10250T419L | 10250T198L | — | — |
| | | | 380 | 10250T413L | 10250T183L | 10250T223L | — |
| | | | 480 | 10250T414L | 10250T184L | 10250T224L | — |
| | | | 600 | 10250T415L | 10250T185L | 10250T225L | — |

Notes

- Ⓞ These units do not include lamps. Order LED separately to match lens color. See **Page 62** for LED Selection and **Page 9** for Catalog Numbering System.
- Ⓞ Resistor units are not available for use with LEDs, choose either transformer or full voltage LED style.
- Ⓞ For flashing lamp, add letter **F** to listed Eaton part number. Example: 10250T181NF.
- Ⓞ Resistant to shock and vibration. For best illumination use amber, yellow or clear lens.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Plastic



Glass



Indicating and Master Test Lenses

| Color | Plastic Part Number | Glass Part Number |
|--------|---------------------|-------------------|
| Red | 10250TC1N | 10250TC7N |
| Green | 10250TC2N | 10250TC8N |
| Amber | 10250TC19N | 10250TC9N |
| Yellow | 10250TC3N | — |
| Blue | 10250TC4N | 10250TC10N |
| Clear | 10250TC5N | 10250TC11N |
| White | 10250TC6N | 10250TC12N |

10250TC2_



Illuminated Pushbutton Lenses

| Color | Eaton Part Number |
|--------|-------------------|
| Red | 10250TC21 |
| Green | 10250TC22 |
| Yellow | 10250TC23 |
| Amber | 10250TC43 |
| Blue | 10250TC24 |
| Clear | 10250TC25 |
| White | 10250TC26 |

Plastic



Glass



PresTest Lenses

| Color | Plastic Part Number | Glass Part Number |
|--------|---------------------|-------------------|
| Red | 10250TC21 | 10250TC13N |
| Green | 10250TC22 | 10250TC14N |
| Amber | 10250TC43 | 10250TC15N |
| Yellow | 10250TC23 | — |
| Blue | 10250TC24 | 10250TC16N |
| Clear | 10250TC25 | 10250TC17N |
| White | 10250TC26 | 10250TC18N |

Push-Pull Emergency Stops (Compliant with IEC 60947-5-5)

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

- Two- and three-position
- Non-illuminated
- LONC contact block

10250T579C47-71X



Two-Position Push-Pull Units

Operator Position [Ⓞ]

| Pull | Push | Button Type/Color | Lamp | Type | Voltage | Eaton Part Number |
|------|------|-----------------------------------|--------------|--------------|-------------|--------------------|
| X | 0 | 40 mm red—illuminated | Incandescent | Transformer | 120 Vac/Vdc | 10250T563C47-71X |
| X | 0 | 40 mm red—illuminated EMERG. STOP | Incandescent | Transformer | 120 Vac/Vdc | 10250T563C53-71X |
| X | 0 | 40 mm red—illuminated EMERG. STOP | LED | Transformer | 120 Vac/Vdc | 10250T563LED06-71X |
| X | 0 | 40 mm red—illuminated | Incandescent | Full voltage | 24 Vdc | 10250T579C47-71X |
| X | 0 | 40 mm red—illuminated EMERG. STOP | Incandescent | Full voltage | 24 Vdc | 10250T579C53-71X |
| X | 0 | 40 mm red—illuminated | Incandescent | Resistor | 120 Vac/Vdc | 10250T580C47-71X |
| X | 0 | 40 mm red—illuminated EMERG. STOP | Incandescent | Resistor | 120 Vac/Vdc | 10250T580C53-71X |
| X | 0 | 40 mm red—illuminated | Incandescent | Transformer | 24 Vdc | 10250T589C47-71X |
| X | 0 | 40 mm red—illuminated EMERG. STOP | Incandescent | Transformer | 24 Vdc | 10250T589C53-71X |
| X | 0 | 40 mm red—illuminated EMERG. STOP | LED | Transformer | 24 Vdc | 10250T589LED06-71X |
| X | 0 | 40 mm red—illuminated | LED | Transformer | 24 Vdc | 10250T589LRD06-71X |
| X | 0 | 40 mm red—illuminated EMERG. STOP | LED | Full voltage | 24 Vdc | 10250T597LED24-71X |
| X | 0 | 40 mm red—illuminated EMERG. STOP | LED | Full voltage | 120 Vac/Vdc | 10250T597LED2A-71X |
| X | 0 | 40 mm red—illuminated | LED | Full voltage | 24 Vdc | 10250T597LRD24-71X |
| X | 0 | 40 mm red—illuminated | LED | Full voltage | 120 Vac/Vdc | 10250T597LRD2A-71X |
| X | 0 | 40 mm red | — | — | — | 10250T5B62-71X |
| X | 0 | 40 mm red | — | — | — | 10250T5B63-71X |
| X | 0 | 65 mm red | — | — | — | 10250T5J62-71X |
| X | 0 | 65 mm red | — | — | — | 10250T5J63-71X |

Note

[Ⓞ] X = closed circuit, 0 = open circuit.

1.4

Pushbuttons and Indicating Lights













30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1



UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Two-Position Push-Pull Units

Operator Position[Ⓞ]

| | Operator Position [Ⓞ] | | Button Type/Color [Ⓞ] | Contact Type | Mounting Location | | Eaton Part Number [Ⓞ] |
|---|--------------------------------|------|---|--------------|---|---|--------------------------------|
| | Pull | Push | | | A | B | |
| Two-Position Maintained Push, Maintained Pull | | | | | | | |
|  | 0 | X | 40 mm/red | 1NO |  |  | 10250T5B62-1X |
| | X | 0 | | 1NC | | | |
|  | 0 | X | 40 mm engraved EMERG. STOP/red | 1NO |  |  | 10250T5B63-1X |
| | X | 0 | | 1NC | | | |
|  | 0 | X | 65 mm aluminum engraved EMERG. STOP/red | 1NO |  |  | 10250T5J63-1X |
| | X | 0 | | 1NC | | | |
|  | 0 | X | 65 mm aluminum engraved EMERG. STOP/red Special security jumbo mushroom head | 1NO |  |  | 10250ED1080-2 |
| | X | 0 | | 1NC | | | |

Button and Color Selection

| | Color | Suffix Code | Eaton Part Number |
|---|--|-------------|-------------------|
|  | Standard—40 mm | | |
| | Red | B62 | 10250TB62 |
| | Red (EMERG. STOP) | B63 | 10250TB63 |
| | Green | B61 | 10250TB61 |
| | Black | B60 | 10250TB60 |
| | Blue | B64 | 10250TB64 |
|  | Jumbo Mushroom Head[Ⓞ] (Anodized) Aluminum—65 mm | | |
| | Red | J62 | 10250TJ62 |
| | Red (EMERG. STOP) | J63 | 10250TJ63 |
| | Green | J61 | 10250TJ61 |
| | Black | J60 | 10250TJ60 |
| | Yellow | J64 | 10250TJ64 |

Notes

- [Ⓞ] X = closed circuit, 0 = open circuit.
- [Ⓞ] To order different type or color buttons, substitute the underlined characters with appropriate suffix code from the table.
Example: 10250TB64-1X.
- [Ⓞ] Anodized aluminum head is not suitable for use in ultraviolet light applications.

10250T_



Three-Position Push-Pull Units

Operator Position[Ⓢ]

| Pull | Intermediate | Push | Button Type/Color [Ⓢ] | Contact Type | Mounting Location | | Eaton Part Number [Ⓢ] |
|--|------------------|----------|-----------------------------------|--------------|-------------------|-------|--------------------------------|
| | | | | | A | B | |
| Maintained Push, Momentary Pull | | | | | | | |
| X | 0 | 0 | 40 mm/black | 1NC | | | 10250T9B60-3X |
| X | X | 0 | 40 mm/red | 1NC | | | 10250T9B62-3X |
| | | | 40 mm engraved EMERG. STOP/red | | | | 10250T9B63-3X |
| Momentary Push, Momentary Pull | | | | | | | |
| X | 0 | 0 | 40 mm/black | 1NC | | | 10250T4B60-3X |
| X | X | 0 | 40 mm/red | 1NC | | | 10250T4B62-3X |
| 0 | 0 | X | 40 mm/black | 1NO | | | 10250T10B60-1X |
| X | 0 | 0 | 40 mm/red | 1NC | | | 10250T10B62-1X |

Button and Color Selection

Standard



| Color | Suffix Code | Eaton Part Number |
|-----------------------|-------------|-------------------|
| Standard—40 mm | | |
| Red | B62 | 10250TB62 |
| Red (EMERG. STOP) | B63 | 10250TB63 |
| Green | B61 | 10250TB61 |
| Black | B60 | 10250TB60 |
| Blue | B64 | 10250TB64 |

Jumbo Mushroom Head



| Color | Suffix Code | Eaton Part Number |
|--|-------------|-------------------|
| Jumbo Mushroom Head[Ⓢ] (Anodized) Aluminum—65 mm | | |
| Red | J62 | 10250TJ62 |
| Red (EMERG. STOP) | J63 | 10250TJ63 |
| Green | J61 | 10250TJ61 |
| Black | J60 | 10250TJ60 |
| Yellow | J64 | 10250TJ64 |

Notes

- Ⓢ X = closed circuit, 0 = open circuit.
- Ⓢ To order different type or color buttons, substitute the underlined characters with appropriate suffix code from the table.
Example: 10250TB64-1X.
- Ⓢ Anodized aluminum head is not suitable for use in ultraviolet light applications.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Illuminated Push-Pull Units

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

- LED or incandescent
- Full voltage, resistor or transformer type
- Two-position maintained



Two-Position Illuminated Maintained Push, Maintained Pull

Operator Position[Ⓞ]

| Maintained— Pull | Maintained— Push | Lamp | Type | Voltage | Contact Type | Mounting Location | | LED/Lamp Number | Red Standard Push-Pull Eaton Part Number [Ⓞ] |
|---------------------|---------------------|--------------|--------------|-------------|-----------------|-------------------|---|--------------------------|---|
| | | | | | | A | B | | |
| 0 | X | LED | Full Voltage | 24 Vac/Vdc | 1NO | | | Bayonet base | 10250T597LRD24-1X |
| X | 0 | | | 120 Vac/Vdc | | | | | 1NC |
| | | | | Transformer | 24 Vac | | | 10250T589LRD06-1X | |
| | | | | | 120 Vac | | | 10250T563LRD06-1X | |
| 0 | X | Incandescent | Full voltage | 24 Vac/Vdc | 1NO | | | #757 | 10250T579C47-1X |
| X | 0 | | | 120 Vac/Vdc | | | | | 1NC |
| | | | | Transformer | 24 Vac | | | #755 | 10250T589C47-1X |
| | | | | | 120 Vac | | | 10250T563C47-1X | |

10250ED137_



Jumbo Lens Illuminated E-Stops

| Lamp | Button Type/Color | Type | Voltage | Contact Type | Eaton Part Number |
|------|--|--------------|------------|-----------------|--------------------|
| LED | Two-position illuminated maintained push/pull— 50 mm jumbo lens/red | Full voltage | 24 Vac/Vdc | 1NO 1NC | 10250ED1375 |
| LED | Three-position illuminated momentary push/pull— 50 mm jumbo lens/red | Full voltage | 24 Vac/Vdc | 1NC 1NC | 10250ED1376 |
| LED | Three-position illuminated momentary push/pull— 50 mm jumbo lens/red | Full voltage | 24 Vac/Vdc | 1NO 1NC | 10250ED1377 |
| LED | Three-position illuminated maintained push/momentary pull— 50 mm lens/red | Full voltage | | 1NO 1NC | 10250ED1378 |





Notes

- [Ⓞ] X = closed circuit, 0 = open circuit.
- [Ⓞ] To order different type or color lens, substitute the underlined characters with appropriate suffix code from table on next page. Example: 10250T579C63-1X. For LEDs with different voltages see ordering example on **Page 28**.

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

1

Lens and Color Selection

| | Color | Incandescent Suffix Code | LED Suffix Code | Eaton Part Number |
|---|--|--------------------------|-----------------|-------------------|
| Standard  | Standard—40 mm | | | |
| | Red | C47 | RD | 10250TC47 |
| | Red (EMERG. STOP) | C53 | ED | 10250TC53 |
| | Green | C48 | GD | 10250TC48 |
| | Blue | C49 | LD | 10250TC49 |
| | Amber | C50 | AD | 10250TC50 |
| | White | C51 | WD | 10250TC51 |
| | Clear | C52 | CD | 10250TC52 |
| Side-Lighted Aluminum  | Side-Lighted Aluminum—40 mm[Ⓞ] | | | |
| | Red | C57 | RS | 10250TC57 |
| | Red (EMERG. STOP) | C63 | ES | 10250TC63 |
| | Green | C58 | GS | 10250TC58 |
| | Blue | C59 | LS | 10250TC59 |
| | Amber | C64 | AS | 10250TC64 |
| | Yellow | C60 | YS | 10250TC60 |
| | White | C61 | WS | 10250TC61 |
| Clear | C62 | CS | 10250TC62 | |
| Aluminum Transparent Center  | Aluminum Transparent Center—40 mm[Ⓞ] | | | |
| | Red | C65 | RH | 10250TC65 |
| | Green | C66 | GH | 10250TC66 |
| Jumbo Lens  | Jumbo Lens—50 mm | | | |
| Red | — | — | 10250TC77 | |

Note

[Ⓞ] Clear anodized aluminum and colored lens.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Three-Position Push-Pull Operator



Three-Position Illuminated Momentary Push, Momentary Pull

Operator Position[Ⓞ]

| Momentary— Pull | Maintained— Intermediate | Momentary— Push | Lamp | Type | Voltage | Contact Type | Mounting Location | | LED/ Lamp Number | Red Standard Push-Pull Eaton Part Number [Ⓞ] |
|--------------------|-----------------------------|--------------------|-------------------|--------------|------------|-----------------|-------------------|---|------------------------|---|
| | | | | | | | A | B | | |
| 0 X | 0 0 | X 0 | LED | Full voltage | 24 Vac/Vdc | 1NO 1NC | | | Bayonet base | 10250T1097LRD24-1X 10250T1097LRD2A-1X |
| | | | | Transformer | 24 Vac | | | | | 10250T1089LRD06-1X 10250T1063LRD06-1X |
| | | | | | 120 Vac | | | | | |
| X X | 0 X | 0 0 | | Full voltage | 24 Vac/Vdc | 1NC 1NC | | | Bayonet base | 10250T497LRD24-3X 10250T497LRD2A-3X |
| | | | | Transformer | 24 Vac | | | | | 10250T489LRD06-3X 10250T463LRD06-3X |
| | | | | | 120 Vac | | | | | |
| 0 X | 0 0 | X 0 | Incan- descent | Full voltage | 24 Vac/Vdc | 1NO 1NC | | | #757 120MB | 10250T1079C47-1X 10250T1080C47-1X |
| | | | | Resistor | 120 Vac | | | | #755 | 10250T1089C47-1X 10250T1063C47-1X |
| | | | | Transformer | 24 Vac | | | | | |
| | | | | | 120 Vac | | | | | |
| X X | 0 X | 0 0 | | Full voltage | 24 Vac/Vdc | 1NC 1NC | | | #757 120MB | 10250T479C47-3X 10250T480C47-3X |
| | | | | Resistor | 120 Vac | | | | #755 | 10250T489C47-3X 10250T463C47-3X |
| | | | | Transformer | 24 Vac | | | | | |
| | | | | | 120 Vac | | | | | |

Three-Position Push-Pull Operator



Three-Position Illuminated Maintained Push, Momentary Pull

Operator Position[Ⓞ]

| Momentary— Pull | Maintained— Intermediate | Momentary— Push | Lamp | Type | Voltage | Contact Type | Mounting Location | | LED/ Lamp Number | Red Standard Push-Pull Eaton Part Number [Ⓞ] |
|--------------------|-----------------------------|--------------------|-------------------|--------------|------------|-----------------|-------------------|---|------------------------|---|
| | | | | | | | A | B | | |
| X X | 0 X | 0 0 | LED | Full voltage | 24 Vac/Vdc | 1NC 1NC | | | Bayonet base | 10250T997LRD24-3X 10250T997LRD2A-3X |
| | | | | Transformer | 24 Vac | | | | | 10250T989LRD06-3X 10250T963LRD06-3X |
| | | | | | 120 Vac | | | | | |
| X X | 0 X | 0 0 | Incan- descent | Full voltage | 24 Vac/Vdc | 1NC 1NC | | | #757 120MB | 10250T979C47-3X 10250T980C47-3X |
| | | | | Resistor | 120 Vac | | | | #755 | 10250T989C47-3X 10250T963C47-3X |
| | | | | Transformer | 24 Vac | | | | | |
| | | | | | 120 Vac | | | | | |

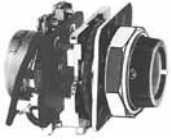
Notes

- Ⓞ X = closed circuit, 0 = open circuit.
- Ⓞ To order different type or color lens, substitute the underlined characters with appropriate suffix code from table on **Page 23**.
- Ⓞ To order different type or color lens, substitute the underlined characters with appropriate suffix code from table on **Page 23**.

Potentiometers

UL (NEMA) Type 3, 3R, 4, 12, 13

Vertical or Horizontal[Ⓞ]
One-Hole Mounting



Potentiometer with Knob and Standard Dial Plate—Linear Type $\pm 10\%$

| Potentiometer Ohms | Eaton Part Number |
|---|-------------------|
| 2 Watt (60V Max.) Single Potentiometer with Standard Aluminum Dial Plate ^{ⓄⓄ} | |
| 1000 | 10250T331 |
| 2500 | 10250T332 |
| 5000 | 10250T338 |
| 10000 | 10250T333 |
| 25000 | 10250T334 |
| 50000 | 10250T335 |
| Operator only [Ⓞ] | 10250T330 |
| Alternative—black plastic large legend with standard markings | E34LP99 |

Notes

- Ⓞ Shown with standard aluminum dial plate.
- Ⓞ Large dial plate with space for legend is available at no charge. To order, add suffix **36** to Catalogue number. Example: 10250T331**36**. To order separately, see footnote [Ⓞ] below.
- Ⓞ Large dial plate has space at top for 15 letters. 3/32 in high. For custom stamped legend plates, order legend plate as separate item **10250TR30** and specify stamping.
- Ⓞ For use with commercially purchased potentiometers having shaft dimensions per dimension drawing on **Page 67**.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Push-Pull Operators

An illuminated push-pull pushbutton unit, arranged for one-hole mounting, can replace two pushbuttons and a pilot light or the non-illuminated form can replace two pushbuttons. These units are available in three basic types:

- **Maintained**—(Two-position). Maintains in the pulled or pushed position until manually actuated to the opposite mode.
- **Momentary**—(Three-position). Spring returns to an intermediate position when pulled or pushed and released.
- **Momentary Pull, Maintained Push**—(Three-position). Spring returns to intermediate position when pulled. Maintains in pushed position until manually returned to intermediate (ready to reset) position. Maintained stop holds circuit open and will prevent other series connected operators from starting the system.

The operators, buttons, contact blocks, etc., are offered as building block components that can be intermixed to satisfy many requirements. This minimises the need for a varied and costly inventory.

Typical Applications

Two-Position Maintained Push-Pull[Ⓞ]



| Control | Line—Diagram | Operator | Circuits | Operator Mode |
|---|--------------|--|-------------------------------|---|
| Three-wire three-position momentary | | Momentary push and pull 10250T4 | 2NC contact block 10250T3 | START (mom.) Normal pos. (maint.) STOP (mom.) |
| Two-wire two-position maintained | | Maintained push and pull 10250T5 | 1NO-1NC contact block 10250T1 | START (maint.) No intermediate position STOP (maint.) |
| Three-wire momentary pull maintained push | | Maintained push and momentary pull 10250T9 | 2NC contact block 10250T3 | START (mom.) Normal pos. (maint.) STOP (maint.) |

Notes

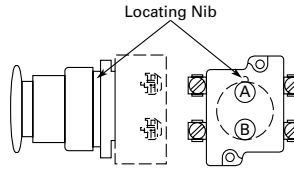
A and **B** circuits shown in the application illustrations are defined in the "Application Guide" on the following page.
[Ⓞ] Shown without button on lens.

Application Guide

To assist in the selection of contact blocks, the sketch to the right shows pictorially by symbols **A** and **B** locations of contact circuits after assembly of contact blocks

and adapter to the operator. The table below shows the effect of the push and pull operations on either NO or NC contacts. (X = contact closed, O = contact open).

Contact Circuit Locations



10250T579C47-71X



Push-Pull Operator Components

Operator Position and Circuit Arrangement

| Type of Operator | Out—Pull | | Intermediate | | In—Push | | Contact Block [®] | Eaton Part Number |
|---|----------|---|--------------------------|---|---------|---|----------------------------|-----------------------------|
| | A | B | A | B | A | B | | |
| Two-Position Operator without Lens | | | | | | | | |
| Maintained push-pull | O | O | No intermediate position | | X | X | 1NO | 10250T5 |
| | X or | X | | | O or | O | 1NC | |
| | O | O | | | X | X | 2NO | |
| | X or | X | | | O or | O | 2NC | |
| Maintained push-pull with anti-theft jumbo mushroom | O | O | No intermediate position | | X | X | 1NO | 10250ED1080 |
| | X or | X | | | O or | O | 1NC | |
| | O | O | | | X | X | 2NO | |
| | X or | X | | | O or | O | 2NC | |
| Three-Position Operator without Lens | | | | | | | | |
| Momentary push-pull | O | O | O | O | X | O | 1NO | 10250T4[®] |
| | X or | X | O or | X | O or | O | 1NC | |
| | O | O | O | O | X | O | 2NO | |
| | X or | X | O or | X | O or | O | 2NC | |
| Maintained push-momentary pull | O | O | O | O | X | O | 1NO | 10250T9[®] |
| | X or | X | O or | X | O or | O | 1NC | |
| | O | O | O | O | X | O | 2NO | |
| | X or | X | O or | X | O or | O | 2NC | |
| Momentary push-pull | O | O | O | O | X | X | 1NO | 10250T10[®] |
| | X or | X | O or | O | O or | O | 1NC | |
| | O | O | O | O | X | X | 2NO | |
| | X or | X | O or | O | O or | O | 2ND | |

Note

[®] Maximum of two blocks, four circuits. Special function contact blocks shown on **Page 59** CANNOT be used with three-position push-pull operators 10250T4, 10250T9 or 10250T10.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Push-Pull Light Units, Lenses and Buttons

Ordering Example with One Composite Number

Non-illuminated:

10250T5 + 10250TB62 + 10250T1 = **10250T5B62-1X**

Incandescent:

10250T5 + 10250T79 + 10250TC47 + 10250T1 = **10250T579C47-1X**

LED:

10250T5 + 10250T97L + 10250TC47 + Voltage code + 10250T1 = **10250T597LRD24-1X**

06—6 Vac/Vdc

12—12 Vac/Vdc

24—24 Vac/Vdc

48—48 Vac/Vdc

60—60 Vac/Vdc

2A—120 Vac

2D—120 Vdc





Light Units for Illuminated Push-Pull Devices

| Light Unit Type | Type | Voltage | LED/Lamp Number | Eaton Part Number |
|---|-----------------|--------------|-----------------|--------------------------|
| LED (LEDs not included) [Ⓞ] | Full voltage | — | Bayonet base | 10250T97L |
| | Transformer | 24 | | 10250T89L |
| | AC only | 120 | | 10250T63L |
| | 50/60 Hz | 208 | | 10250T64L |
| | | 240 | | 10250T65L |
| | | 277 | | 10250T82L |
| | | 380 | | 10250T66L |
| | | 480 | | 10250T67L |
| | | 600 | | 10250T68L |
| | | Incandescent | | Full voltage AC or DC |
| 12 | 10250T70 | | | |
| 24/28 | 10250T79 | | | |
| 32 | 10250T83 | | | |
| Resistor AC or DC | 120 | | 120MB | 10250T80 |
| | 240 | | 10250T81 | |
| Transformer AC only 50/60 Hz | 24 | | #755 | 10250T89 |
| | | | | 10250T63 |
| | | | | 10250T64 |
| | | | | 10250T65 |
| | | | | 10250T82 |
| | | | | 10250T66 |
| | | | | 10250T67 |
| | | | | 10250T68 |



Note

[Ⓞ] These units do not include lamps. Order LED separately to match lens color, see **Page 62**.

Alternate Lenses for Illuminated Push-Pull Devices

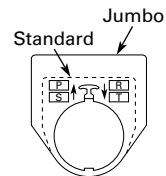
| | Lens Color | Incandescent Suffix Code | LED Suffix Code [Ⓞ] | Eaton Part Number |
|---|--|--|------------------------------|-------------------|
| Standard  | Standard | | | |
| | Red | C47 | RD | 10250TC47 |
| | Red (EMERG. STOP) | C53 | ED | 10250TC53 |
| | Green | C48 | GD | 10250TC48 |
| | Blue | C49 | LD | 10250TC49 |
| | Amber | C50 | AD | 10250TC50 |
| | White | C51 | WD | 10250TC51 |
| | Clear | C52 | CD | 10250TC52 |
| Side-Lighted Anodized Aluminum Ring  | Side-Lighted Anodized Aluminum Ring | | | |
| | Red | C57 | RS | 10250TC57 |
| | Red (EMERG. STOP) | C63 | ES | 10250TC63 |
| | Green | C58 | GS | 10250TC58 |
| | Blue | C59 | LS | 10250TC59 |
| | Amber | C64 | AS | 10250TC64 |
| | Yellow | C60 | YS | 10250TC60 |
| | White | C61 | WS | 10250TC61 |
| | Clear | C62 | CS | 10250TC62 |
| | Heavy-Duty Aluminum  | Heavy-Duty Aluminum with Transparent Center | | |
| Red | | C65 | RH | 10250TC65 |
| Green | | C66 | GH | 10250TC66 |
| Amber | | C67 | AH | 10250TC67 |
| Blue | | C69 | — | 10250TC69 |
| White | | C68 | — | 10250TC68 |
| Jumbo Lens  | Jumbo Lens—50 mm | | | |
| | Red | — | — | 10250TC77 |

Buttons for Non-Illuminated Push-Pull Devices

| | Color | Notes Suffix Code | Eaton Part Number |
|---|--|-------------------|-------------------|
| Standard  | Standard | | |
| | Red | B62 | 10250TB62 |
| | Red (EMERG. STOP) | B63 | 10250TB63 |
| | Green | B61 | 10250TB61 |
| | Black | B60 | 10250TB60 |
| | Blue | B64 | 10250TB64 |
| Jumbo Mushroom Head  | Jumbo Mushroom Head[Ⓞ] (Anodized) Aluminum | | |
| | Red | J62 | 10250TJ62 |
| | Red (EMERG. STOP) | J63 | 10250TJ63 |
| | Green | J61 | 10250TJ61 |
| | Black | J60 | 10250TJ60 |
| | Yellow | J64 | 10250TJ64 |

Legend Plates

For a complete listing of available legend plates see **Page 53**.



[Ⓞ] Suffix codes should only be used for assembling composite Catalogue numbers. To order lens above, order by Catalogue number.

[Ⓞ] Anodized aluminum head is not suitable for use in ultraviolet light applications.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Selector Switch Units

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

- Two-, three- and four-position maintained
- Non-illuminated and illuminated

Two-Position Maintained Switch



Two-Position Selector Switch

| Operator Position [Ⓞ] | | Operator Action [Ⓞ] | Contact Type | Mounting Location | | Non-Illuminated | | Illuminated—120V Transformer | |
|--------------------------------|---|------------------------------|--------------|-------------------|---|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|
| X | O | | | A | B | Black Knob Part Number [Ⓞ] | Black Lever Part Number [Ⓞ] | Red Knob Part Number [Ⓞ] | Red Lever Part Number [Ⓞ] |
| X | O | M | 1NC | | | 10250T20KB | 10250T20LB | 10250ED1117-KR | 10250ED1117-LR |
| O | X | | 1NO | | | | | | |

Three-Position Maintained Switch



Three-Position Selector Switch

| Operator Position [Ⓞ] | | | Operator Action [Ⓞ] | Contact Type | Mounting Location | | Non-Illuminated | | Illuminated—120V Transformer | |
|--------------------------------|---|---|------------------------------|--------------|-------------------|---|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|
| X | O | O | | | A | B | Black Knob Part Number [Ⓞ] | Black Lever Part Number [Ⓞ] | Red Knob Part Number [Ⓞ] | Red Lever Part Number [Ⓞ] |
| X | O | O | M | 1NO | | | 10250T21KB | 10250T21LB | 10250ED1117-2KR | 10250ED1117-2LR |
| O | O | X | | 1NO | | | | | | |
| X | O | O | | 1NO | | | 10250T22KB | 10250T22LB | 10250ED1117-3KR | 10250ED1117-3LR |
| O | X | O | | 2NC (Series) | | | | | | |
| O | O | X | | 1NO | | | | | | |

Three-Position Maintained Switch



Four-Position Selector Switch

| Operator Position [Ⓞ] | | | | Operator Action [Ⓞ] | Contact Type | Mounting Location | | Non-Illuminated | | Illuminated—120V Transformer | |
|--------------------------------|---|---|---|------------------------------|--------------|-------------------|---|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------------|
| X | O | O | O | | | A | B | Black Knob Part Number [Ⓞ] | Black Lever Part Number [Ⓞ] | Red Knob Part Number [Ⓞ] | Red Lever Part Number [Ⓞ] |
| X | O | O | O | M | 1NC | | | 10250T46KB | 10250T46LB | 10250ED1117-4KR | 10250ED1117-4LR |
| O | X | O | O | | 1NO | | | | | | |
| O | O | X | O | | 1NO | | | | | | |
| O | O | O | X | | 1NC | | | | | | |

Color

Illuminated

| Color | Code Letter | Color | Code Letter | Color | Code Letter |
|-------|-------------|-------|-------------|-------|-------------|
| Red | R | White | W | Amber | A |
| Green | G | Blue | B | Clear | C |

Non-Illuminated

| Color | Code Letter | Color | Code Letter | Color | Code Letter |
|-------|-------------|-------|-------------|--------|-------------|
| Black | B | Green | G | Blue | L |
| Red | R | White | W | Orange | O |

Selection

Notes

- Ⓞ X = closed circuit, O = open circuit.
- Ⓞ M = Maintained.
- Ⓞ To order different type or color selector switch, substitute the underlined character with appropriate suffix code from the Color Selection table. Example: 10250T20KG.

Selector Switch Selection



Cam and Contact Block Selection

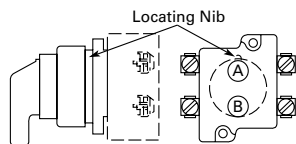
Selector switches in their varied forms (two-position, three-position and four-position) are a big factor contributing to the great flexibility of control that a well rounded line of “pushbuttons” can achieve. Because of their flexibility, they tend to cause difficulty with product selection and application. The following systematic approach should simplify that task.

Cam and contact block selection is better understood if you:

- Work with each incoming and outgoing wire/circuit separately.
- Recognize the terms NO and NC only identify the type of contact by its mode before mounting to the operator. The “X-O” table (Page 33) shows how that contact will act after assembly to the operator with the selected cam shape. X = closed circuit, O = open circuit.

- Up to six NO or NC contacts may be mounted behind each plunger location for a total of twelve contacts. Single circuit contact blocks have only one plunger with the other side of the block “open.” Therefore, single circuit contact blocks transmit motion to blocks behind them only for the position containing the circuit.
- Each cam has two separate lobes, each of which operates one of the two contact block plungers independently of each other. Those are identified as position A (locating nib side) and position B (opposite of locating nib). The position designations give direction in selecting and mounting of the contact blocks.

Contact Circuit Locations

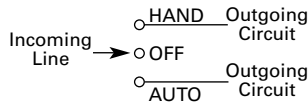


Systematic Approach

Application: **HAND-OFF-AUTO** selector switch. In this circuit, one incoming line is distributed to two other outgoing circuits by the switch. The two circuits can be looked at individually.

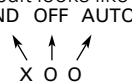
Step 1: Elementary Diagram.

Construct on paper, or in your mind, a simple elementary diagram of the switching scheme as follows:



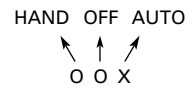
Step 2: “X-O” Pattern.

From the elementary diagram, you can construct an “X-O” diagram which describes when the contacts are to be closed (X) or open (O) in the various positions of the switch. The “X-O” for the **HAND** circuit looks like this:



In this circuit, you want a contact closed on the left (HAND) but open in the center and right.

For the **AUTO** circuit, the “X-O” diagram would look like this:



Putting them together, the complete “X-O” diagram is:



Once the “X-O” diagram has been generated the next step is to select the cam and contact block, or blocks, needed to perform the desired “X-O” functions. The selection tables on the following pages list the various types (shapes) of cams by number to choose from and the type of contact and position to achieve the function outlined in your “X-O” diagram.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Step 3: Cam Selection.

The cam you select determines the operation of all contact blocks mounted to the operator. It is selected on the basis that it provides the simplest circuitry for the desired "X-O" diagram. The selection tables show all the "X-O" combinations. For the purpose of this example, the applicable portion of those tables is shown on this page.

Now to make the cam selection, make a simple worksheet such as:

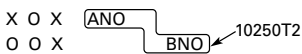
| | | |
|-------|-------------|-------|
| | Cam 2 | Cam 3 |
| X O O | (A)NO-(B)NC | (A)NO |
| O O X | (B)NO | (B)NO |

It becomes immediately obvious that cam 3 is the better choice for two reasons, (1) the series combination can be avoided making it simpler to wire, (2) only two contacts are required, which is less expensive than the three contacts required by cam 2.

Step 4: Contact Block Selection.

Having selected the cam, contact block selection is simply a matter of gathering the A position and B position circuits into pairs which make up the most convenient contact block arrangement. If there is an imbalance in the number of circuits under A or B, then single circuit blocks must be selected for these leftover circuits.

Back to the worksheet, having selected cam 3 do this:



Step 5: Selector Switch Operator.

Lastly, you have to choose from the many types of operators—knob and lever in various colors or keyed. Also what combinations of maintained and spring return functions are required. Selection of these operators can be found on **Page 36**. For the example in step 4 you may want a three-position maintained black knob, cam 3—Catalogue Number 10250T1323.

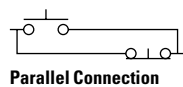
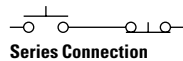
The Complete Switch: 10250T1323 with one 10250T2 or, for one composite Catalogue number, 10250T21KB found on **Page 36**.

Diagrams

Circuits shown illustrate connections to obtain a selector switch circuit combination and are shown with their appropriate line diagrams. Field wiring of jumper connections required as shown.

X = Closed circuit
O = Open circuit

Wiring of Jumper Connections



Four-position selector switches are limited to four contact blocks.

Contact Blocks

For selection and number of available contact blocks per operator, see **Page 61**.

Example Selection Table

| No. | "X-O" Pattern | Cam Code #2 | | Cam Code #3 | |
|-----|---------------|-------------|----------|-------------|----------|
| | | Top A | Bottom B | Top A | Bottom B |
| 1 | X 0 0 | ⊖ | ⊖ | ⊖ | — |
| 4 | 0 0 X | — | ⊖ | — | ⊖ |

Two-Position Selector Switch Contact Block Selection

| No. | Desired Circuit and Operator Position | Contact Blocks Required to Accomplish Circuit Function | |
|-----|---------------------------------------|--|------------------|
| | | Top Plunger A | Bottom Plunger B |
| 1 | | ⊖ | ⊖ |
| 2 | 0 X | ⊖ | ⊖ |

Note
⊖ Wired in series.

Three-Position Switch—Cam and Contact Block Selection

| No. | Desired Circuit and Operator Position | | | Operator with Cam Code #2 | | Operator with Cam Code #3 | |
|-----|---------------------------------------|---|---|---------------------------|------------------|---------------------------|------------------|
| | | | | Mounting Location | | Mounting Location | |
| | | | | Top Plunger A | Bottom Plunger B | Top Plunger A | Bottom Plunger B |
| 1 | X | 0 | 0 | | | | |
| 2 | X | X | 0 | | | | |
| 3 | X | 0 | X | | | | |
| 4 | 0 | 0 | X | | | | |
| 5 | 0 | X | X | | | | |
| 6 | 0 | X | 0 | | | | |

Four-Position Switch—Contact Block Selection

| No. | Desired Circuit and Operator Position | | | | Contact Blocks Required to Accomplish Circuit Function | | No. | Desired Circuit and Operator Position | | | | Contact Blocks Required to Accomplish Circuit Function | |
|-----|---------------------------------------|---|---|---|--|------------------|-----|---------------------------------------|---|---|---|--|------------------|
| | | | | | Top Plunger A | Bottom Plunger B | | | | | | Top Plunger A | Bottom Plunger B |
| 1 | X | 0 | 0 | 0 | | | 10 | X | 0 | X | 0 | | |
| 2 | 0 | X | 0 | 0 | | | | | | | | | |
| 3 | 0 | 0 | X | 0 | | | 11 | X | X | X | 0 | | |
| 4 | 0 | 0 | 0 | X | | | | | | | | | |
| 5 | X | 0 | 0 | X | | | 12 | 0 | X | X | X | | |
| 6 | 0 | X | X | 0 | | | | | | | | | |
| 7 | 0 | 0 | X | X | | | 13 | X | 0 | X | X | | |
| 8 | X | X | 0 | 0 | | | | | | | | | |
| 9 | 0 | X | 0 | X | | | 14 | X | X | 0 | X | | |

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Selector Switch Operators

Key Operators

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Two-Position Maintained[Ⓢ]



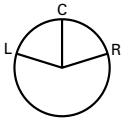
Key Operators with Cam

| | Operator Action [Ⓢ] | Cam Code [Ⓢ] | Optional Key Removal Positions [Ⓢ] | Vertical Mounting Part Number | Horizontal Mounting Part Number |
|--------------------------|------------------------------|-----------------------|---|-------------------------------|---------------------------------|
| | | 1 | 1, 2, 3 | 10250T1511_ | 10250T1611_ |
| | | 1 | 2 | 10250T1571_ | 10250T1581_ |
| Three-position—60° throw | | 2 | 1–7 | 10250T1522_ | 10250T1622_ |
| | | 3 | | 10250T1523_ | 10250T1623_ |
| | | 2 | 1, 4, 5 | 10250T1532_ | 10250T1632_ |
| | | 3 | | 10250T1533_ | 10250T1633_ |
| | | 2 | 4 | 10250T1542_ | 10250T1642_ |
| | | 3 | | 10250T1543_ | 10250T1643_ |
| Four-position—40° throw | | 2 | 2, 4, 6 | 10250T1652_ | 10250T1662_ |
| | | 3 | | 10250T1653_ | 10250T1663_ |
| | | 7 | 7 | 10250T1677_ | 10250T1687_ |

Notes

- Ⓢ Horizontal mount, key removal #1 keyed selector switch, cam 1 shown.
- Ⓢ M = Maintained. S = Spring return in direction of arrow (R).
- Ⓢ For selection of the proper cam and contact block to obtain the proper circuit sequence, see selection instructions and tables on **Page 33**.
- Ⓢ Choose key removal position required for application from table on **Page 35**. Add key removal code no. to listed Catalogue number. Example: 10250T15112.

Key Removal Positions



| Code Suffix | Key Removal Position |
|-------------|----------------------|
| 1 | Right only |
| 2 | Left only |
| 3 | Right and left |
| 4 | Center only |
| 5 | Right and center |
| 6 | Left and center |
| 7 | All positions |

Note: Key removal in “spring return from” positions not recommended.

Replacement Keys or Dissimilar Locks for Key Operators

Operators listed on **Page 34** have identical locks and keys (Key Code H661) Part Number 10250ED824. For dissimilar lock and key combinations, see listing on this page.

Replacement Key

| Description | Eaton Part Number |
|------------------------------|-------------------|
| Replacement keys (code H661) | 10250ED824 |

Selector Switch Operators with Dissimilar Locks and Keys (UL [NEMA] 4, 4X and 13)

The locks in all key operators listed on **Page 35** are identical and use key code number H661. Two keys are supplied with every lock. For additional code number H661 keys, order **Part Number 10250ED824**. For others, order 10250ED1130 and designate lock number. When dissimilar locks for each operator or each group of operators are required, select from the lock and key combination listed below. **When Ordering Operator Only** or a complete control unit with a substitute lock, order from table below and add “except Lock and Key Code No.”

“H” Series Locks without Master Key—with Key Slot Cover

Lock and Key Code Numbers

| H501 | H635 | H663 |
|------|------|------|
| H620 | H639 | H675 |
| H621 | H643 | H683 |
| H634 | H654 | H688 |

“M” Series Locks with Master Key—with Key Slot Cover

Lock and Key Code Numbers

| MD1 | MD14 | ME8 | MJ6 |
|------|------|------|------|
| MD2 | MD15 | ME11 | MJ10 |
| MD3 | MD16 | ME16 | MJ11 |
| MD4 | MD19 | ME17 | MJ13 |
| MD5 | MD20 | ME18 | MJ15 |
| MD7 | ME2 | ME19 | MJ16 |
| MD9 | ME3 | MJ1 | MD17 |
| MD10 | ME5 | MJ3 | |
| MD11 | ME6 | MJ4 | |
| MD13 | ME7 | MJ5 | |














Master Keys for Above Locks

| Application | Eaton Part Number |
|-------------|-------------------|
| For code: | |
| MD1–MD20 | 10250ED825-3 |
| ME2–ME18 | 10250ED825-4 |
| MJ1–MJ16 | 10250ED825-5 |

Selector Switch Operators with Caps

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Selector Switch Operators with Caps

| | Positions | Operator Action [Ⓢ] | Black Knob Selector Switch—Vertical Mounting [Ⓢ] | | Black Lever Selector Switch—Vertical Mounting [Ⓢ] | |
|---|--------------------------|---|---|-------------------|--|-------------------|
| | | | Cam Code [Ⓢ] | Eaton Part Number | Cam Code [Ⓢ] | Eaton Part Number |
| Two-Position Maintained[Ⓢ]  | Two-position—60° throw |  | 1 | 10250T1311 | 1 | 10250T3011 |
| | |  | 1 | 10250T1371 | 1 | 10250T3071 |
| Three-Position Maintained[Ⓢ]  | Three-position—60° throw |  | 2 | 10250T1322 | 2 | 10250T3022 |
| | |  | 3 | 10250T1323 | 3 | 10250T3023 |
| | |  | 2 | 10250T1332 | 2 | 10250T3032 |
| | |  | 3 | 10250T1333 | 3 | 10250T3033 |
| | |  | 2 | 10250T1342 | 2 | 10250T3042 |
| | |  | 3 | 10250T1343 | 3 | 10250T3043 |
| | |  | 2 | 10250T1352 | 2 | 10250T3052 |
| | |  | 3 | 10250T1353 | 3 | 10250T3053 |
| | Four-position—40° throw |  | 7 | 10250T1367 | 7 | 10250T3067 |

Notes

- Ⓢ Black knob selector switch, cam 1 shown.
- Ⓢ M = Maintained. S = Spring return in direction of arrow.
- Ⓢ Field convertible to horizontal mounting or order operator only and separate operator cap.
- Ⓢ For selection of the proper cam and contact block to obtain the proper circuit sequence, see selection instructions and tables on **Page 33**.
- Ⓢ Black lever selector switch, cam 3 shown.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Selector Switch Operators without Caps

Operators can be ordered with caps assembled to them by adding the code number from the table on this page to the end of Catalogue number below.

Example: 10250T4011**KB**

Two-Position Selector Switch Maintained



Selector Switch Operators without Caps

| Positions | Operator Action [Ⓞ] | Cam Code [Ⓞ] | Eaton Part Number |
|--------------------------|------------------------------|-----------------------|-------------------|
| Two-position—60° throw | | 1 | 10250T4011 |
| | | 1 | 10250T4081 |
| Three-position—60° throw | | 2 | 10250T4022 |
| | | 3 | 10250T4023 |
| | | 2 | 10250T4032 |
| | | 3 | 10250T4033 |
| | | 2 | 10250T4042 |
| | | 3 | 10250T4043 |
| Four-position—40° throw | | 2 | 10250T4052 |
| | | 3 | 10250T4053 |
| | | 7 | 10250T4067 |

Knob



Lever



Lever for Use with Maintained Operators



Coin Slot



Operating Caps

| Color | Knob Part and Code Number | Lever Part and Code Number | Color | Lever [Ⓞ] Part and Code Number | Coin Slot Part and Code Number |
|--------|---------------------------|----------------------------|--------|---|--------------------------------|
| Black | 10250TKB | 10250TLB | Black | 10250TSB | 10250TCB |
| Red | 10250TKR | 10250TLR | Red | 10250TSR | 10250TCR |
| Green | 10250TKG | 10250TLG | Green | 10250TSG | 10250TCG |
| Yellow | 10250TKY | 10250TLY | Yellow | 10250TSY | 10250TCY |
| White | 10250TKW | 10250TLW | White | 10250TSW | 10250TCW |
| Gray | 10250TKA | 10250TLA | Gray | 10250TSA | 10250TCA |
| Blue | 10250TKL | 10250TLL | Blue | 10250TSL | 10250TCL |
| Orange | 10250TKD | 10250TLO | Orange | 10250TSO | 10250TCO |

Notes

- [Ⓞ] M = Maintained. S = Spring return in direction of arrow (R).
- [Ⓞ] For selection of the proper cam and contact block to obtain the proper circuit sequence, see selection instructions and tables on **Page 33**.
- [Ⓞ] Designed for added ingress protection. For use in maintained operators only.

Illuminated Selector Switch Operators

Illuminated Selector Switches without Caps

Operator without Knob or Lever

Two-Position Selector Switch Maintained



| Positions | Operator Action [Ⓢ] | Transformer Type—50/60 Hz 6 Volt #755 Lamp | | | Full Voltage Type—AC or DC [Ⓢ] Lamps: 6V—#755, 12V—#756, 24V—#757, 48V—#1835, 120/240V—120MB | | |
|--------------------------|------------------------------|---|------------|--|---|------------------|--|
| | | Cam Code [Ⓢ] | Voltage | Code Number and Eaton Part Number [Ⓢ] | Cam Code [Ⓢ] | Voltage | Code Number and Eaton Part Number [Ⓢ] |
| Two-position—60° throw | | 1 | 24 | 10250T5961 | 1 | 6 | 10250T6201 |
| | | | 120 | 10250T5971 | | 12 | 10250T6211 |
| | | | 208 | 10250T6511 | | 24 | 10250T6221 |
| | | | 240 | 10250T5981 | | 48 | 10250T6231 |
| | | | 380 | 10250T5991 | | 120 | 10250T6361 |
| | | | 480 | 10250T6001 | | 240 [Ⓢ] | 10250T6371 |
| Three-position—60° throw | | + 2 or 3 | 24 | 10250T602_ | + 2 or 3 | 6 | 10250T624_ |
| | | | 120 | 10250T603_ | | 12 | 10250T625_ |
| | | | 208 | 10250T652_ | | 24 | 10250T626_ |
| | | | 240 | 10250T604_ | | 48 | 10250T627_ |
| | | | 380 | 10250T605_ | | 120 | 10250T638_ |
| | | | 480 | 10250T606_ | | 240 [Ⓢ] | 10250T639_ |
| | | + 2 or 3 | 24 | 10250T654_ | + 2 or 3 | 6 | 10250T612_ |
| | | | 120 | 10250T620_ | | 12 | 10250T632_ |
| | | | 208 | 10250T655_ | | 24 | 10250T642_ |
| | | | 240 | 10250T656_ | | 48 | 10250T672_ |
| | | | 380 | 10250T657_ | | 120 | 10250T622_ |
| | | | 480 | 10250T658_ | | 240 | 10250T682_ |
| | + 2 or 3 | 24 | 10250T660_ | + 2 or 3 | 6 | 10250T613_ | |
| | | 120 | 10250T621_ | | 12 | 10250T633_ | |
| | | 208 | 10250T661_ | | 24 | 10250T643_ | |
| | | 240 | 10250T662_ | | 48 | 10250T673_ | |
| | | 380 | 10250T663_ | | 120 | 10250T623_ | |
| | | 480 | 10250T664_ | | 240 | 10250T683_ | |
| | + 2 or 3 | 24 | 10250T614_ | + 2 or 3 | 6 | 10250T628_ | |
| | | 120 | 10250T615_ | | 12 | 10250T629_ | |
| | | 208 | 10250T653_ | | 24 | 10250T630_ | |
| | | 240 | 10250T616_ | | 48 | 10250T631_ | |
| | | 380 | 10250T617_ | | 120 | 10250T640_ | |
| | | 480 | 10250T618_ | | 240 [Ⓢ] | 10250T641_ | |
| Four-position—40° throw | | 7 | 24 | 10250T6087 | 7 | 6 | 10250T6327 |
| | | | 120 | 10250T6097 | | 12 | 10250T6337 |
| | | | 208 | 10250T6547 | | 24 | 10250T6347 |
| | | | 240 | 10250T6107 | | 48 | 10250T6357 |
| | | | 380 | 10250T6117 | | 120 | 10250T6427 |
| | | | 480 | 10250T6127 | | 240 [Ⓢ] | 10250T6437 |
| | 600 | 10250T6137 | | | | | |

Notes

- Ⓢ M = Maintained. S = Spring return in direction of arrow (R).
- Ⓢ For selection of the proper cam and contact block, to obtain the proper circuit sequence, see selection tables on **Page 33**.
- Ⓢ Operator includes lens gasket and lens attachment screws.
- Ⓢ Full voltage light units can be used at other than listed voltages by changing lamp. Replacement lamps are listed on **Page 62**.
- Ⓢ Resistor type. May generate excess heat if used in high density.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Knob



Lever



Illuminated Knobs and Levers

| Color [Ⓢ] | Knob Code Number and Eaton Part Number | Lever Code Number and Eaton Part Number |
|--------------------|--|---|
| Red | 10250TER | 10250TFR |
| Green | 10250TEG | 10250TFG |
| Yellow | 10250TEA | 10250TFA |
| Blue | 10250TEL | 10250TFL |
| Clear | 10250TEC | 10250TFC |
| White | 10250TEW | 10250TFW |
| Amber | 10250TEM | 10250TFM |

Joystick Units

Two-Position Joystick



Joystick Units—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Operator Position[Ⓢ]

| Up | Center | Down | Operator Action [Ⓢ] | Contact Type | Mounting Location A B | Two-Position Assembled Unit Eaton Part Number [Ⓢ] |
|----|--------|------|------------------------------|--------------|-------------------------------|--|
| | | | | 1NC | | 10250T452-3X |
| X | 0 | 0 | M | 1NC | | |

Notes

- Ⓢ Amber, clear and white lenses have a black arrow (pointer), red, green and blue lenses have a white arrow (pointer).
- Ⓢ X = closed circuit, 0 = open circuit.
- Ⓢ M = Maintained, S = Spring return in direction of arrow (R).
- Ⓢ Field convertible momentary to maintained or vice versa.

Joysticks

Two-Position Joystick Operators

The device mounts in the standard 30.5 mm mounting hole. Allow sufficient panel space for lever movement.

The maximum travel of the knob operator (full up to full down) is 2.2 in (24°) momentary, 2.5 in (30°) maintained, but ample space for lever operation must be allowed. These operators are field convertible from momentary to maintained operation or vice versa.

The use of NC contacts is preferred because they provide positive drive contact opening and a direct relationship between lever movement and affected terminal, i.e., up movement affects the top terminals.

Application Caution

Joystick operators are not recommended on certain DC applications above 24 Vdc which may involve lightly engaging the contacts (teasing) to achieve speed control, positioning, jogging, etc. Excessive arcing and deterioration of the contacts will occur.

Two-Position Joystick Operator



Two-Position Joystick Operators—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

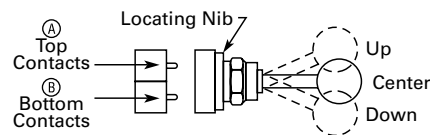
| Contact Block Limitations | Two-Position Operator Only—AC Applications Only Description [Ⓞ] | Eaton Part Number |
|---|---|-------------------|
| Momentary Mode 4NC contact blocks max. 3NO contact blocks max. | Momentary up and down | 10250T452 |
| | Maintained up—momentary down | 10250T4521 |
| | Maintained down—momentary up | 10250T4522 |
| Maintained Mode 2 contact blocks max. | Maintained up and down | 10250T4525 |

Contact Block Operation and Selection

Handle Position[Ⓞ]

| Up | Center | Down | Contact Block Type [Ⓞ] | Mounting Location ^{ⓄⓄ} | | Eaton Part Number |
|----|--------|------|---------------------------------|---------------------------------|----------|-----------------------------|
| | | | | Top A | Bottom B | |
| X | 0 | 0 | 1NC | | | 10250T51 |
| 0 | 0 | X | 1NC | | | 10250T51 |
| 0 | X | 0 | 2LONC (Series) | | | 10250T45 |
| X | 0 | 0 | 1NC | | | 10250T3 |
| 0 | 0 | X | 1NC | | | |
| X | X | 0 | 1LONC | | | 10250T45 |
| 0 | X | X | 1LONC | | | |
| X | 0 | 0 | 1NC | | | 10250T44[Ⓞ] |
| 0 | 0 | X | 1NO | | | |
| 0 | 0 | X | 1NC | | | |
| X | 0 | 0 | 1NO | | | |

A and B Mounting Location



| | | |
|---|--|---|
| <u>Up</u> | <u>Center</u> | <u>Down</u> |
| NC Contact at Top Is Closed, NO at Bottom Is Closed | All NC and NO Contacts Are Open (1/2 Way), Late Opening NC Is Closed | NC Contact at Bottom Is Closed, NO at Top Is Closed |

Notes

- Ⓞ Field convertible momentary to maintained or vice versa. To expedite shipment of maintained types, order momentary operator 10250T452 which is a stocked device.
- Ⓞ Bolded circuit corresponds to "X-0" circuit selection. X = closed circuit, 0 = open circuit.
- Ⓞ See above for "A" and "B" mounting location.
- Ⓞ NO = normally open, NC = normally closed, LONC = late opening normally closed.
- Ⓞ Four circuits in single block depth—rated 300V max.

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Four-Position Joystick Operators

The joystick operated control unit is intended for AC application only. For other use, see **Application Caution** on preceding page.

The panel area required for the four-position operator is equivalent to two standard pushbutton operators.

The latch holds the lever in the center position. The trigger latch must be released before lever can moved into any position.

Four-Position Joystick Operator



Four-Position Joystick Operator with Latch



Four-Position Joystick Operators—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

| Contact Block Limitations | Description [Ⓞ] | Eaton Part Number |
|---|-----------------------------|-------------------|
| Operator Only—AC Application Only | | |
| Four contact blocks max.—two in each position | Four-position—without latch | 10250T451_ |
| | Four-position—with latch | 10250T461_ |
| Hole Plug | | |
| Four contact blocks max.—two in each position | To plug unused hole | 10250TA7 |

Field Conversion—Gate

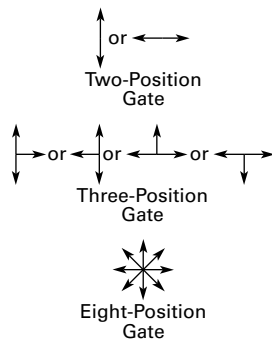
The factory assembled four-position operator is assembled with a gate arranged for four handle positions.

Handle Positions



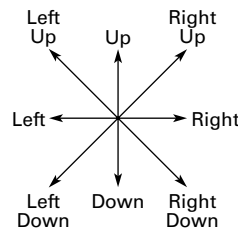
Three additional gates, supplied with every operator, allow on the job conversion to three- or eight-position operation as illustrated.

Two-, Three- or Eight-Position Operation



The eight-position gate controls the four functions shown as “Up,” “Down,” “Left” and “Right.” The remaining four diagonal positions each actuate two adjacent functions; for example, “Left Down” actuates both “Left” and “Down.” The operator may be arranged for spring return of handle to center position, or maintained in up to eight positions (see description of maintained position operator).

Adjacent Functions



Maintained Position

For maintained position (non-spring return), locate required maintained position or positions of operating lever and add appropriate suffix number to the Catalogue number selected from the table above.

Maintained Positions

| Maintained Positions | | | | Suffix Number |
|----------------------|------|------|-------|---------------|
| Up | Down | Left | Right | |
| X | — | — | — | 1 |
| — | — | — | — | 2 |
| — | X | — | — | 3 |
| — | — | X | — | 4 |
| — | — | — | — | 5 |
| X | — | X | — | 6 |
| X | — | — | X | 7 |
| — | X | X | — | 8 |
| — | X | — | X | 9 |
| — | — | X | X | 10 |
| X | X | X | — | 11 |
| X | X | — | X | 12 |
| X | — | X | X | 13 |
| — | X | X | X | 14 |
| X | X | X | X | 15 |

On an eight-position gate, when an adjacent vertical and horizontal position are both maintained, the included diagonal position is also maintained.

Note

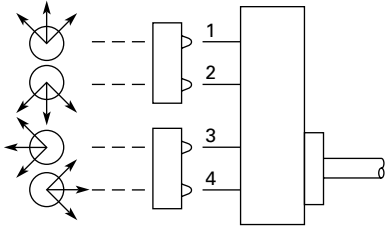
[Ⓞ] Momentary operators—spring return to center. For maintained operators add suffix code from table on this page. Example: 10250T451**10**. Operator without latch, maintained in left and right positions.

Contact Block Operation

Contact blocks mount directly to the back of the operator. For reliable operation, the maximum number of contact blocks that should be installed behind each operator lever is two (four total).

The figure below identifies the circuits activated by each of the eight possible lever positions. Contact block plungers 1, 2, 3, 4 are depressed (change state) when handle is in the position indicated by arrows below.

Circuit Activation



Note: Joystick in its resting state, center position, does not activate contact block plungers.

Ordering Example:

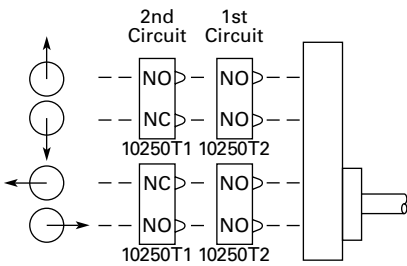
Suppose you are looking for a four-position momentary joystick without a latch and the following circuit arrangements. X = Closed Circuit, O = Open Circuit.

Example Circuit Arrangements

| Circuit | Up | Down | Left | Right |
|---------|----|------|------|-------|
| 1st | X | X | X | X |
| 2nd | X | O | O | X |

The contact blocks and their mounting locations would be as follows:

Example Contact Blocks and Locations



A complete bill of material for this example would include:

Example Order

| Qty. | Eaton Part Number |
|------|-------------------|
| 1 | 10250T4 |
| 2 | 10250T2 |
| 2 | 10250T1 |

Blank Legend Plates for Joystick Operators

When ordering engraved legend plates, order by Catalogue number and insert the following into order notes:

- Legend required
- Size of characters: 3/16, 1/8, 3/32 in (4.8, 3.2, 2.4 mm)
- Location by letter (A–N)

Locations K and M can accommodate up to two lines horizontally; L and N up to two lines vertically.

Maximum number of characters:

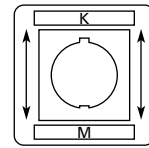
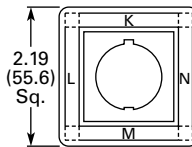
- Horizontal
3/16 in—13, 1/8 in—14, 3/32 in—19
- Vertical
3/16 in—10, 1/8 in—13, 3/32 in—14

Ordering Example:

Two-position legend plate to be marked "UP" "DOWN."

Catalogue No. 10250TJ2S4STAMP
Letter Size: 3/16 in (4.8 mm)
Pos. K—UP
Pos. M—DOWN

Two-Position



Eaton Part Number

Eaton Part Number

Blank Plate

10250TJS3

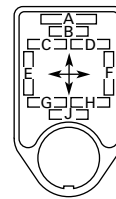
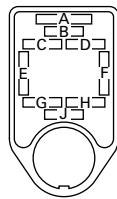
10250TJS4

Engraved Plate

10250TJS3STAMP

10250TJS4STAMP

Four-Position



Eaton Part Number

Eaton Part Number

Blank Plate

10250TJS1

10250TJS2

Engraved Plate

10250TJS1STAMP

10250TJS2STAMP

1.4

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

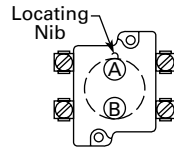
1

Roto-Push Units

Two-Position Momentary

Complete assembled two-position Roto-Push® Units are listed below. These operators have black flush buttons and are arranged for vertical mounting. Order legend plates separately.

Mounting Location



Roto-Push—Black Flush Button



Roto-Push Units—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

| Typical Applications (Most Common Examples) | Operator Position [Ⓞ] Collar Left | | Collar Right | | Contact Type | Mounting Location | | Eaton Part Number [Ⓞ] |
|--|---|-----------|--------------|-----------|--------------|-------------------|---|--------------------------------|
| | Normal | Depressed | Normal | Depressed | | A | B | |
| Two-Position FORWARD/REVERSE; HIGH/LOW; OPEN/CLOSE; UP/DOWN; etc. | 0 | 0 | 0 | X | 1NO | | | 10250T2411-2 |
| | 0 | X | 0 | 0 | 1NO | | | |
| JOG/RUN; MAN./AUTO; etc. | 0 | X | 0 | X | 1NO | | | 10250T24111-2 |
| | 0 | 0 | X | X | 1NO | | | |
| RUN/JOG; START/JOG; etc. | 0 | X | 0 | X | 1NO | | | 10250T24111-1 |
| | X | X | 0 | 0 | 1NC | | | |
| SAFE/RUN; etc. | 0 | 0 | 0 | X | 1NO | | | 10250T2415-2 |
| | 0 | 0 | X | X | 1NO | | | |

Two-Position Latched

The two-position Roto-Push Latch Unit is fully assembled and only requires a legend plate for a great variety of applications. When the selector collar is in the extreme left position, the button is in the free or normal position and can be operated as a standard pushbutton. Rotating the collar to the

extreme right position automatically depresses and latches the button in the depressed position. The white filled groove in the button indicates the selector collar position. The selector collar has spring return to the left position except when in the extreme right latched position.

Red Long



Rotates to a Latch-Out Mode

| Color and Type of Button | Contact Block | Vertical Mounting Eaton Part Number |
|--------------------------|---------------|-------------------------------------|
| Red long | 1NC | 10250T72 |
| | 2NC | 10250T73 |

Notes

- Ⓞ X = closed circuit, 0 = open circuit.
- Ⓞ Roto-Push assembled with contact blocks.

Roto-Push Operators

Roto-Push Components

A Roto-Push control unit combines the function of a pushbutton and a selector switch. The contacts are operated by the combined action of rotating the outer collar and pushing a button contained in the collar.

In selecting the cam and contact blocks for the listed function, the analysis involves considering the function with the collar rotated to the given position with the button free (designated as "N") and then in that same position with the button depressed (designated "D"). This is done for each rotational position of the collar.

When Ordering Specify

- Catalogue number of operator with cam code suffix from tables below and on following pages, Example: 10250T241 1.
- Catalogue number(s) for contact blocks and legend plates if required.
- To select the cam and contact blocks needed for two-position and three-position switches, use the tables on following pages.

Operator and Cam



Operator and Cam

| Color and Type of Button | Cam Code No. Select from Tables | Vertical Mounting Eaton Part and Code Number | Horizontal Mounting Eaton Part and Code Number |
|--------------------------|---------------------------------|--|--|
| Black flush | + 1 to 18 | 10250T241_ | 10250T251_ |
| Red flush [⊙] | | 10250T242_ | 10250T252_ |
| Green flush | | 10250T243_ | 10250T253_ |
| Black long | | 10250T261_ | 10250T271_ |
| Red long [⊙] | | 10250T262_ | 10250T272_ |
| Green long | | 10250T263_ | 10250T273_ |

Two-Position Roto-Push Operator—Rotates to a Latch-Out Mode

Special Rotor Latch

This differs from the other Roto-Push operators in that as the collar is rotated to the right it depresses the button and releases the button when rotated left. But the button in the released position can be momentarily pushed independent of the collar or

its position. As the button is depressed by rotating the collar, the button also rotates and indicates its mode by a white line on the button face. This button can be used as an emergency stop or latched stop.

Special Roto Latch—Red Long Button



Special Rotor Latch—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

| Color and Type of Button | Vertical Mounting Eaton Part Number |
|--------------------------|-------------------------------------|
| Red long | 10250T3213 |
| Black long | 10250T3214 |

Note

[⊙] Not to be used for emergency stop application.









































1.4

Pushbuttons and Indicating Lights

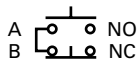
30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

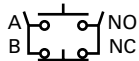
Cam and Contact Block Selection for Two-Position Roto-Push

| Combination Number | Collar Position | | Circuit Sequence [Ⓞ] | | Cam Code 1 | Cam Code 2 | Cam Code 3 | Cam Code 4 | Cam Code 5 | Cam Code 6 |
|--------------------|-----------------|---|-------------------------------|---|--|--|------------|--|--|--|
| | N | D | N | D | | | | | | |
| 1 | 0 | 0 | 0 | X | A  NO | A  NO | — | — | A  NO | — |
| 2 | 0 | 0 | X | 0 | — | — | — | A  NO B  NO | A  NO B  NO | — |
| 3 | 0 | 0 | X | X | — | — | — | — | B  NO | A  NO |
| 4 | 0 | X | 0 | 0 | B  NO | A  NO B  NO | — | — | — | A  NO B  NO |
| 5 | 0 | X | 0 | X | A  NO B  NO | B  NO | — | A  NO | — | — |
| 6 | 0 | X | X | 0 | — | — | — | — | — | — |
| 7 | 0 | X | X | X | — | — | A or B NO | B  NO | — | B  NO |
| 8 | X | 0 | 0 | 0 | — | — | A or B NC | B  NC | — | B  NC |
| 9 | X | 0 | 0 | X | — | — | — | — | — | — |
| 10 | X | 0 | X | 0 | A  NO B  NO | B  NC | — | A  NC | — | — |
| 11 | X | 0 | X | X | B  NC | A  NO B  NC | — | — | — | A  NO B  NC |
| 12 | X | X | 0 | 0 | — | — | — | — | B  NC | A  NC |
| 13 | X | X | 0 | 0 | — | — | — | A  NO B  NC | A  NO B  NC | — |
| 14 | X | X | X | 0 | A  NC | A  NC | — | — | A  NC | — |

Series and Parallel Connections



Series Connection



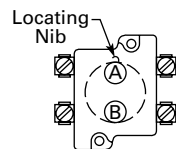
Parallel Connection

The connections are not made at the factory. They are illustrated in the selection table as requirements, but must be made on the job.

Note

Ⓞ N = Button in free or normal position. D = Button depressed.

Circuit Location

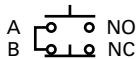


Letters "A" and "B" represent the locations which the two circuits of a contact block will occupy in relation to the locating nib of the operator.

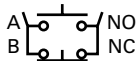
Cam and Contact Block Selection for Two-Position Roto-Push, continued

| Combination Number | Collar Position | | | | Cam Code 10 | Cam Code 11 | Cam Code 12 | Cam Code 13 | Cam Code 14 |
|--------------------|-------------------------------|---|---|---|-------------|-------------|-------------|-------------|-------------|
| | Circuit Sequence [Ⓞ] | | N | D | | | | | |
| | N | D | N | D | | | | | |
| 15 | 0 | 0 | 0 | X | — | | — | — | — |
| 16 | 0 | 0 | X | 0 | — | | A | A or BNC | A |
| 17 | 0 | 0 | X | X | B | B | — | — | — |
| 18 | 0 | X | 0 | 0 | A | | — | — | B |
| 19 | 0 | X | 0 | X | — | A | B | — | — |
| 20 | 0 | X | X | 0 | — | — | — | — | A |
| 21 | 0 | X | X | X | A | A | A | — | — |
| 22 | X | 0 | 0 | 0 | A | A | A | — | — |
| 23 | X | 0 | 0 | X | — | — | — | — | A |
| 24 | X | 0 | X | 0 | — | A | B | — | — |
| 25 | X | 0 | X | X | A | | — | — | B |
| 26 | X | X | 0 | 0 | B | B | — | — | — |
| 27 | X | X | 0 | 0 | — | | A | A or BNO | A |
| 28 | X | X | X | 0 | — | | — | — | — |

Series and Parallel Connections



Series Connection



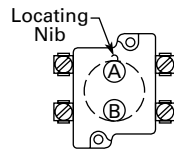
Parallel Connection

The connections are not made at the factory. They are illustrated in the selection table as requirements, but must be made on the job.

Note

Ⓞ N = Button in free or normal position. D = Button depressed.

Circuit Location



Letters "A" and "B" represent the locations which the two circuits of a contact block will occupy in relation to the locating nib of the operator.

1.4

Pushbuttons and Indicating Lights

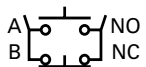
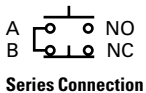
30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Cam and Contact Block Selection for Three-Position Roto-Push

| Combination Number | Collar Position | | | | | | Cam Code 7 | Cam Code 8 | Cam Code 9 | Cam Code 15 [Ⓢ] | Cam Code 16 | Cam Code 17 | Cam Code 18 |
|--------------------|-----------------|---|---|---|---|---|------------|------------|------------|--------------------------|-------------|-------------|-------------|
| | N | D | N | D | N | D | | | | | | | |
| 1 | 0 | 0 | 0 | 0 | 0 | X | | | — | | | — | |
| 2 | 0 | 0 | 0 | 0 | X | X | — | — | | — | — | | — |
| 3 | 0 | 0 | 0 | X | 0 | 0 | — | — | | — | — | — | |
| 4 | 0 | 0 | 0 | X | 0 | X | — | — | — | — | — | — | |
| 5 | 0 | 0 | 0 | X | X | X | — | — | | — | — | — | — |
| 6 | 0 | 0 | X | X | 0 | 0 | — | | — | — | — | — | — |
| 7 | 0 | 0 | X | X | 0 | X | — | | — | — | — | — | — |
| 8 | 0 | 0 | X | X | X | 0 | | — | — | — | — | — | — |
| 9 | 0 | 0 | X | X | X | X | | — | — | — | — | — | — |
| 10 | 0 | X | 0 | 0 | 0 | 0 | | | — | | | | |
| 11 | 0 | X | 0 | 0 | 0 | X | | — | — | | | — | — |
| 12 | 0 | X | 0 | 0 | X | X | — | — | — | — | — | | — |
| 13 | 0 | X | 0 | X | 0 | 0 | — | — | — | — | — | — | |
| 14 | 0 | X | 0 | X | 0 | X | — | — | — | — | — | — | |
| 15 | 0 | X | X | X | 0 | 0 | — | | — | — | — | — | — |
| 16 | 0 | X | X | X | 0 | X | — | | — | — | — | — | — |
| 17 | 0 | X | X | X | X | X | | — | — | — | — | — | — |

Series and Parallel Connections

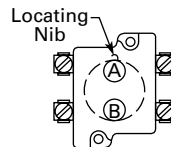


The connections are not made at the factory. They are illustrated in the selection table as requirements, but must be made on the job.

Notes

- Ⓝ N = Button in free or normal position. D = Button depressed.
- Ⓢ Limited to 4 contact blocks.

Circuit Location

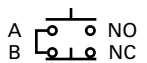


Letters "A" and "B" represent the locations which the two circuits of a contact block will occupy in relation to the locating nib of the operator.

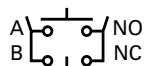
Cam and Contact Block Selection for Three-Position Roto-Push, continued

| Combination Number | Collar Position | | | | | | Cam Code 7 | Cam Code 8 [®] | Cam Code 9 | Cam Code 15 | Cam Code 16 | Cam Code 17 | Cam Code 18 |
|--------------------|-------------------------------|---|---|---|---|---|----------------|-------------------------|----------------|--------------------|----------------|----------------|----------------|
| | Circuit Sequence [®] | | | | | | | | | | | | |
| | N | D | N | D | N | D | | | | | | | |
| 18 | X | 0 | 0 | 0 | 0 | 0 | A NC B NC | — | — | — | — | — | — |
| 19 | X | 0 | 0 | 0 | X | X | — | A NC | — | — | — | — | — |
| 20 | X | 0 | 0 | 0 | X | 0 | — | A NC B NC | — | — | — | — | — |
| 21 | X | 0 | X | X | 0 | 0 | — | — | — | — | — | A NC B NC | — |
| 22 | X | 0 | X | X | X | X | A NC B NO | A NC B NO | — | — | A NC | B NC | A NC B NO |
| 23 | X | 0 | X | X | X | 0 | A NC | — | — | — | A NC B NC | — | — |
| 24 | X | 0 | X | 0 | X | 0 | — | — | — | A NC B NC | — | — | A NC B NC |
| 25 | X | 0 | X | 0 | X | X | — | — | — | A NC | — | — | A NC |
| 26 | X | X | 0 | 0 | 0 | 0 | B NC | — | A NC | — | — | — | — |
| 27 | X | X | 0 | 0 | 0 | X | A NO B NC | — | — | — | — | — | — |
| 28 | X | X | 0 | 0 | X | 0 | — | B NC | — | — | — | — | — |
| 29 | X | X | 0 | 0 | X | X | — | A NC B NO | A NC B NO | — | — | — | — |
| 30 | X | X | X | X | 0 | 0 | — | — | B NC | — | — | A NC | — |
| 31 | X | X | X | X | X | 0 | A NC B NC | A NO B NC | — | — | B NC | — | A NO B NC |
| 32 | X | X | X | 0 | X | 0 | — | — | — | B NC [®] | — | — | B NC |
| 33 | X | X | X | 0 | X | X | — | — | — | A NO B NC | — | — | A NC B NC |

Series and Parallel Connections



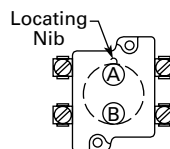
Series Connection



Parallel Connection

The connections are not made at the factory. They are illustrated in the selection table as requirements, but must be made on the job.

Circuit Location



Letters "A" and "B" represent the locations which the two circuits of a contact block will occupy in relation to the locating nib of the operator.

Notes

- [®] N = Button in free or normal position. D = Button depressed.
- [®] Limited to 4 contact blocks.

1.5

Pushbuttons and Indicating Lights











30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Accessories

Padlocks not included with padlocking attachments. For operators with built-in padlock attachment, see **Page 13**.

Accessories

| | Description | Eaton Part Number |
|---|---|-------------------|
| Padlock Attachments | | |
|  | 10250TA2 Padlocking Attachment for Flush Pushbutton Operators Permits locking NC contacts in open position with 6.35mm padlock. Will not lock NO contact. | 10250TA2 |
|  | 10250TA26 Padlocking Attachment for Use with Extended Pushbutton Permits locking NC contacts in open position with 6.35mm padlock. | 10250TA26 |
|  | 10250TA36 Padlocking Cover Guard Cover locked over flush button makes it inaccessible or on extended button locks NC contacts open. Takes 6.35mm shank size padlock. | 10250TA36 |
|  | 10250TA38 Padlock Hasp or Flip-Up Guard When used with a 6.35mm padlock, makes flush and long button and knob selector switch inaccessible, but not locked down. Without the padlock, it is a flip-up guard. Padlock hasp can be removed before assembly. | 10250TA38 |
|  | 10250TA63 Padlocking Attachment for Use with Flexible Weather Resistant Boot Used on long button operators. Stainless steel. Use only for locking NC contacts open. | 10250TA63 |
|  | 10250TA64 Padlock Attachment For use with illuminated pushbuttons and maintained push-pull operators having standard button or lens only. Use 6.35mm padlock. Locks in down position only. | 10250TA64 |
|  | 10250TA11 Padlocking Attachment for Non-Illuminated Knob Selector Switches Provision for up to 5, 6.35mm padlocks. | 10250TA11 |
|  | 11029 Padlock Attachment for Extended Pushbutton Chrome Provision for one padlock attachment with a diameter of 8.7mm | 90118 |
|  | CHW90114 Padlock Attachment for Extended/Flush Pushbutton Black Up to two padlock attachments with a 6.84mm can be fitted – black unit. | CHW90114 |
|  | CHW90114A Padlock Attachment for Extended/Flush Pushbutton Stainless Steel Up to two padlock attachments with a 6.84mm can be fitted – chrome unit. | CHW90114A |

Accessories, continued

| | Description | Eaton Part Number |
|---|--|-----------------------|
| Shrouds and Guards | | |
|  | Shroud for Mushroom Head Operator Prevents accidental operation. (Not for push-pull operators.) | 10250TA6 |
|  | Extended Retaining Nut Replaces standard nut and provides guard for flush head pushbutton operators. | 10250TA12 |
|  | Guard for Illuminated Pushbutton | 10250TA15 |
|  | Shroud For jumbo mushroom head operator. | |
| | Gray | 10250TA56 |
| | Yellow | 10250TA56Y |
|  | Half Shroud —Yellow For jumbo mushroom head operator. | 10250ED1241 |
|  | Fingerproof Shroud —10 per package Fits new style contact blocks and light units. | 10250TA101 |
| Boots | | |
|  | Flexible Weather Resistant Boot For use with button operators (extended buttons preferred). Temperature to -25°F (-32°C). (See Page V7-T37-215 for 10250TA96 Tightening Tool.) | |
| | Black | 10250TA3 |
| | Red | 10250TA4 [Ⓞ] |
| | Green | 10250TA10 |
|  | Transparent Boot For regular illuminated pushbutton operators and PresTest— Temperature to -38°F (-39°C). [Ⓞ] | 10250TA25 |
|  | Boot for Flush Pushbutton | |
| | Clear | 10250TA46 |
| | Black | 10250TA47 |
| | Red | 10250TA48 |
| | Green | 10250TA49 |

Notes

- Ⓞ Should not be used on flush button for STOP function.
- Ⓞ Not suitable for single contact block depth cast enclosure. Cover is too thick.


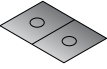








1.5

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Accessories, continued

| | Description | Eaton Part Number |
|---|---|--|
| 10250TK3 | Hardware and Kits Thrust Washers— To meet Ford Motor Co. mounting specifications. | 10250TK3 |
|  | | |
| 10250TK5 | Contact Block Tape Seal— Seals plunger openings on last contact block. Order in multiples of 10 pieces. | 10250TK5 |
|  | | |
| 56-9337 | Selector Switch Operator Gasket— Seals out dust from getting in-between the cam and contact block plungers. Supplied as standard with all selector switches. | 56-9337 |
|  | | |
| 10250TA3_ | Special Retaining Nut— To accommodate thick panel: Indicating lights | 10250TA30 |
|  | | |
| | PresTest, pushbuttons and selector switches | 10250TA31 |
| 10250TA62 | Terminal Block— Two terminals, each will accommodate two wire terminations. | 10250TA62 |
|  | | |
| 10250TA8 | Spacer Ring— Used when legend plate is not required. | 10250TA8 |
|  | | |
| 10250TA79 | Stacking Screw— Replaces transformer mounting screws on indicating light so terminal block 10250TA62 can be mounted to light to support and connect a series resistor. This screw also fits all contact blocks. Order in multiples of 10. | 10250TA79 |
|  | | |
| 10250TA2_ | Base Mounting Spacers[Ⓢ]— Equivalent to contact block in depth (one block deep). Complete with screws, washers, etc. (two block deep). | 10250TA22 10250TA23 |
|  | | |
| 10250TKG_ | Grounding Kits— Kits consist of a ring connector and a #6 screw for mounting connector to rear of contact block mounting screw. All components except standard indicating lights and PresTest indicating lights. | 10250TKG1 |
|  | | |
| | Standard indicating lights | 10250TKG2[Ⓢ] |
| | PresTest indicating lights | 10250TKG3[Ⓢ] |
| 10250TA7_ | Contact Block Terminal Jumpers— Available in multiples of 100 only. Terminal to terminal—within block (short) 100 per pkg. 1000 per pkg. Terminal to terminal—block to block (long) 100 per pkg. 1000 per pkg. | 10250TA70 10250TA70-2 10250TA71 10250TA71-2 |
|  | | |

Notes

- Ⓢ Component only. Not to be used for custom built (factory assembled) stations.
- Ⓢ Not suitable for single contact block depth cast enclosure. Cover is too thick.

Accessories, continued

| | Description | Eaton Part Number |
|---|--|---------------------|
| Special Operators and Attachments | | |
|  | Wobble Stick Complete with retaining nut—fits standard button. | 10250TA5 |
|  | Lever Operator For use with two vertically mounted flush pushbuttons. | 10250TA14 |
|  | Maintained Contact Attachment Release Button Assembly [Ⓞ] Mechanically interlocks with another pushbutton and contact block (not included). Provides mode indication. Minimum hole centers 1.62 in (41.1 mm), maximum 2.313 in (58.8 mm). | |
| | Black | 10250TA17 |
| | Red | 10250TA18 |
| | Green | 10250TA19 |
| | Yellow | 10250TA20 |
| | Same with Long Button—Black | 10250TA39 |
|  | Maintained Contact Attachment [Ⓞ] Mechanically interlocks two buttons and provides position indication for one. Use with two pushbutton operators and one or more contact blocks. | 10250TA1 |
|  | Roto-Push Lever Operator — Used to provide lever operation for Roto-Push operators. | 10250TA13 |
| Special Light Modules | | |
|  | Master Test (Dual Input) Module — Internal Form C relay suitable for either AC or DC applications. Total electrical isolation between monitored and test circuit. Fits all illuminated 10250T, E22, E30 and E34 devices. | |
| | 48 Vdc | 10250TMT8 |
|  | Flasher Module — Changes any AC illuminated device to a controlled flashing light. Fits 10250T, E30 and E34 devices. | |
| | 24V | 10250TFL2 |
| | 120V | 10250TFL1 |
|  | Flashing Incandescent Lamp — For use with 120V transformer type or 6V full voltage type indicating lights including PresTest and most E29 devices. | 10250ED986-4 |

Note

[Ⓞ] Not suitable for single contact block depth cast enclosure. Cover is too thick.





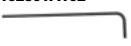



1.5

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Accessories, continued

| | Description | Eaton Part Number |
|---|--|-------------------|
| | Hole Plugs | |
| 10250TA7  | Plug— For unused holes—steel, painted gray (stainless steel, use E30KT5, see Page V7-T37-160) | 10250TA7 |
| | Tools | |
| 10250TA95  | Octagonal 10250T (notched to fit over selector switch lever), E29 and E30 | 10250TA95 |
| E22CW  | E22, E30, E34 and octagonal 10250T (will not fit over selector switch levers) | E22CW |
| 10250TA96  | Tool for Tightening Boots— Used to install boot Catalogue Numbers 10250TA3, A4, A10 and A25. | 10250TA96 |
| 10250TA102  | 10250T, E34 Allen Wrench— Used for removal of jumbo mushroom head. | 10250TA102 |
| 10250TA74  | Lamp Removal Tools— For transformer type illuminated pushbuttons, push-pull and selector switches. Fits #12 lamp. | 10250TA74 |
| E30KV1  | For full voltage and resistor type illuminated pushbuttons, push-pull and selector switches and E30. | E30KV1 |
| E29KLT  | Standard indicating lights. Fits #44, #755, #6S6 and #10S6. | E29KLT |

Options

Legend Plates

Legend Plates with Standard Markings

The legend plates listed below are sized for all standard commercial enclosures and Eaton's cast enclosures. For vertical

spacing less than 1.75 in, replace the S in the Catalogue number with MS, or the M with P (except push-pull). No change in price. The smaller size

legend plates, "MS" or "P" size, have limited space for legend.

Square Legend Plate



1/2 Round Legend Plate



For Pushbutton Operators and Indicating Lights—Standard

| Legend | Color of Field | Square [Ⓢ] Part Number | 1/2 Round Part Number | Legend | Color of Field | Square [Ⓢ] Part Number | 1/2 Round Part Number |
|--|----------------|---------------------------------|-----------------------|----------|----------------|---------------------------------|-----------------------|
| Blank—see table on Page 56. | | | | | | | |
| Letters on Legend Plates Below are 3/16 in High | | | | | | | |
| CLAMP | Black | 10250TS90 | 10250TM90 | OFF | Red | 10250TS24 | 10250TM24 |
| CLOSE | | 10250TS73 | 10250TM11 | ON | Black | 10250TS25 | 10250TM25 |
| DOWN | | 10250TS74 | 10250TM12 | OPEN | | 10250TS26 | 10250TM26 |
| EMERG. STOP | Red | 10250TS13 | 10250TM13 | OUT | | 10250TS27 | 10250TM27 |
| FAST | Black | 10250TS75 | 10250TM14 | POWER ON | | 10250TS80 | 10250TM80 |
| FASTER | | 10250TS87 | 10250TM87 | RAISE | | 10250TS28 | 10250TM28 |
| FEEDER ON | | 10250TS94 | 10250TM94 | READY | | 10250TS86 | 10250TM86 |
| FEEDER OFF | | 10250TS95 | 10250TM95 | RESET | | 10250TS29 | 10250TM29 |
| FORWARD | | 10250TS15 | 10250TM15 | REVERSE | | 10250TS30 | 10250TM30 |
| HIGH | | 10250TS16 | 10250TM16 | RUN | | 10250TS31 | 10250TM31 |
| IN | | 10250TS17 | 10250TM17 | SAFE | | 10250TS85 | 10250TM85 |
| INCH | | 10250TS18 | 10250TM18 | SLOW | | 10250TS32 | 10250TM32 |
| JOG | | 10250TS19 | 10250TM19 | SLOWER | | 10250TS88 | 10250TM88 |
| JOG FOR. | | 10250TS20 | 10250TM20 | START | | 10250TS33 | 10250TM33 |
| JOG REV. | | 10250TS21 | 10250TM21 | STOP | Red | 10250TS34 | 10250TM34 |
| LOW | | 10250TS22 | 10250TM22 | TEST | Black | 10250TS83 | 10250TM83 |
| LOWER | | 10250TS23 | 10250TM23 | TRANSFER | | 10250TS93 | 10250TM93 |
| LUBE-FAIL | | 10250TS92 | 10250TM92 | TRIP | | 10250TS84 | 10250TM84 |
| MOTOR RUN | | 10250TS81 | 10250TM81 | UNCLAMP | | 10250TS91 | 10250TM91 |
| MOTOR STOP | | 10250TS82 | 10250TM82 | UP | | 10250TS35 | 10250TM35 |

Blank Plastic Legend Plates—Square

| Color Lettering | Field | Standard Part Number | Jumbo [Ⓢ] Part Number | Extra Large Part Number |
|-----------------|------------------------------|----------------------|--------------------------------|-------------------------|
| Black | White or silver [Ⓢ] | 10250TSP76 | 10250TLP76 | 10250TEP76 |
| White | Red or black [Ⓢ] | 10250TSP77 | 10250TLP77 | 10250TEP77 |

Notes

- Ⓢ Square legend plates have a satin aluminum field. Color is on lower portion.
- Ⓢ Cannot be used on cast enclosures except for top row. Suitable for most sheet metal enclosures.
- Ⓢ If legend plate is to be engraved, specify field color required.

1.6

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Square Legend Plate



1/2 Round Legend Plate



For Selector Switch and Roto-Push Operators—Standard Size

| Legend | Color of Field | Square [Ⓢ] Part Number | 1/2 Round Part Number | Legend | Color of Field | Square [Ⓢ] Part Number | 1/2 Round Part Number |
|--|----------------|---------------------------------|-----------------------|---|----------------|---------------------------------|-----------------------|
| Blank—see table on Page 56. | | | | | | | |
| 2-Position—5/32 in High Lettering | | | | 3-Position—1/8 in High Lettering | | | |
| FOR. REV. | Black | 10250TS38 | 10250TM38 | AUTO OFF HAND | Black | 10250TS49 | 10250TM49 |
| HAND AUTO | | 10250TS39 | 10250TM39 | FOR. OFF REV. | | 10250TS50 | 10250TM50 |
| HIGH LOW | | 10250TS40 | 10250TM40 | FOR. SAFE REV. | | 10250TS69 | 10250TM69 |
| JOG RUN | | 10250TS41 | 10250TM41 | HAND OFF AUTO | | 10250TS51 | 10250TM51 |
| MAN. AUTO | | 10250TS67 | 10250TM67 | MAN. OFF AUTO | | 10250TS68 | 10250TM68 |
| OFF ON | | 10250TS42 | 10250TM42 | OPEN OFF CLOSE | | 10250TS53 | 10250TM53 |
| OPEN CLOSE | | 10250TS43 | 10250TM43 | RUN SAFE JOG | | 10250TS70 | 10250TM70 |
| RUN JOG | | 10250TS44 | 10250TM44 | UP OFF DOWN | | 10250TS54 | 10250TM54 |
| SAFE RUN | | 10250TS45 | 10250TM45 | ON STOP SAFE | Red | 10250TS71 | 10250TM71 |
| START JOG | | 10250TS46 | 10250TM46 | | | | |
| START STOP | | 10250TS47 | 10250TM47 | | | | |
| UP DOWN | | 10250TS48 | 10250TM48 | | | | |

70 mm Round—Plastic Legend Plate



45 mm and 70 mm Plastic—Round

| Color Lettering | Field | Eaton Part Number |
|-----------------|----------------------------|-------------------|
| 45 mm | | |
| Blank | Yellow or red [Ⓢ] | 10250TRP78 |
| 70 mm | | |
| Blank | Yellow or red [Ⓢ] | 10250TRP76 |
| Red EMERG. STOP | Yellow | 10250TRP79 |

For Push-Pull Units[Ⓢ]

| Legend | Color of Field | Square [Ⓢ] Part Number | 1/2 Round Part Number |
|--|----------------|---------------------------------|-----------------------|
| Standard Size—Letters on Legend Plates Below are 3/32 in High | | | |
| PULL START/PUSH STOP | Green/red | 10250TPP2 | 10250TR2 |
| PUSH ON/PULL OFF | Black | 10250TPP5 | 10250TR5 |
| PULL OPEN/PUSH CLOSE | Black | 10250TPP8 | 10250TR8 |
| PULL UP/PUSH DOWN | Black | 10250TPP11 | 10250TR11 |
| Jumbo Size—Letters on Legend Plates Below are 1/8 in High | | | |
| PULL START/PUSH STOP | Green/red | 10250TPP3 | 10250TR3 |
| PULL ON/PUSH OFF | Black | 10250TPP6 | 10250TR6 |
| PULL OPEN/PUSH CLOSE | Black | 10250TPP9 | 10250TR9 |
| PULL UP/PUSH DOWN | Black | 10250TPP12 | 10250TR12 |

Notes

- [Ⓢ] Square legend plates have a satin aluminum field. Color is on lower portion.
- [Ⓢ] If legend plate is to be engraved, specify field color required.
- [Ⓢ] All push-pull legend plates include the symbols $\neq \emptyset$ in the center of the plate.

Legend Plates with Non-Standard Markings

When Ordering Specify

- Catalogue number of blank plate phase plus Suffix "STAMP."
- Insert the following into Order Notes: legend, letter size and locations (letters A–W)—combine letters for definitive locations as shown.

Ordering Example:

Catalogue No.: 10250TS36STAMP
 Letter Size: 3/32 in (2.4 mm)
 Pos. A—POWER HOUSE
 Pos. B—START PUMP 1

Legend Characters Available

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

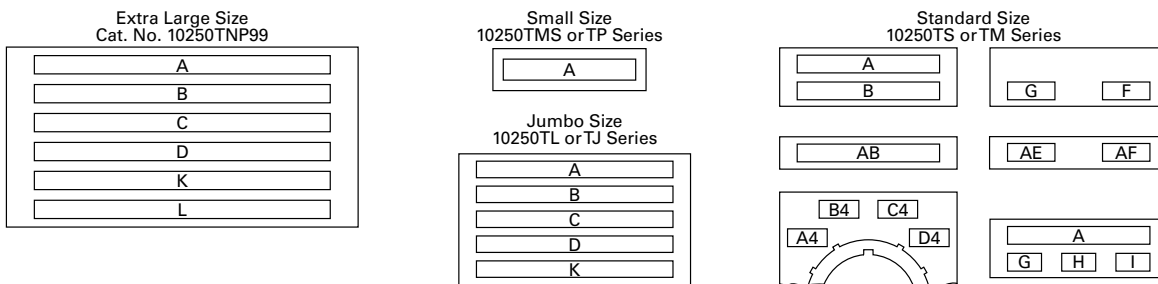
Legend characters on black and red plates are white—on satin aluminum plates, characters are black.

Blackening Kit

Solution blackens aluminum exposed by engraving process. Must be applied immediately after engraving. 0.3 oz. bottle—sufficient for approximately 1100 legend plates.

Eaton Part Number:
10250TBK

Legend Positions



Blank and Custom Engraved Legend Plates

| Style | Color | Small Part Number | Standard Part Number | Jumbo® Part Number | Extra Large® Part Number | Four-Position Selector Switch | | Push-Pull with Symbols® | |
|-----------|-------------|-------------------|----------------------|--------------------|--------------------------|-------------------------------|----------------------|-------------------------|--------------------|
| | | | | | | Custom® Part Number | Standard Part Number | Standard Part Number | Jumbo® Part Number |
| Square® | Black | 10250TMS36 | 10250TS36 | 10250TL36 | — | 10250TS76 | 10250TS72 | 10250TPP17 | 10250TPP18 |
| | Red | 10250TMS37 | 10250TS37 | 10250TL37 | — | — | — | — | — |
| | Green/red | — | — | — | — | — | — | 10250TPP20 | 10250TPP21 |
| | Satin alum. | — | — | — | 10250TNP99 | — | — | — | — |
| 1/2 Round | Black | 10250TP36 | 10250TM36 | 10250TJ36 | — | — | 10250TM72 | 10250TR17 | 10250TR18 |
| | Red | 10250TP37 | 10250TM37 | 10250TJ37 | — | — | — | — | — |
| | Green/red | — | — | — | — | — | — | 10250TR20 | 10250TR21 |
| | Satin alum. | — | 10250TM89 | 10250TJ89 | — | — | — | — | — |

Maximum Characters per Legend Plate and Approximate Dimensions

| Top (Aluminum and Plastic) | Approximate Dimensions in Inches (mm) | | Style | Character Size 3/32 in High | | 1/8 in High | | 3/16 in High | |
|----------------------------|---------------------------------------|-------------|-----------|-----------------------------|----------------------|-----------------|----------------------|-----------------|----------------------|
| | Width | Height | | Number of Lines | Number of Characters | Number of Lines | Number of Characters | Number of Lines | Number of Characters |
| Small® | 1.59 (40.4) | 1.59 (40.4) | Square | 1 | 17 | — | — | — | — |
| | | | 1/2 Round | 1 | 15 | 1 | 12 | 1 | 9 |
| Standard and custom | 1.75 (44.5) | 1.75 (44.5) | Square | 2 | 18 | 2 | 13 | 1 | 9 |
| | | | 1/2 Round | 2 | 15 | 2 | 12 | 1 | 9 |
| Jumbo® | 2.19 (55.6) | 2.19 (55.6) | Square | 5 | 23 | 3 | 18 | 2 | 12 |
| | | | 1/2 Round | 5 | 19 | 4 | 15 | 2 | 11 |
| Extra large® | 2.44 (62) | 2.44 (62) | Square | 6 | 25 | 3 | 18 | 3 | 12 |

Notes

- Ⓢ All push-pull legend plates include the symbols ≠ ∅ in the center of the plate.
- Ⓢ Cannot be used on cast enclosures except for top row. Suitable for most sheet metal enclosures.
- Ⓢ When used to meet Ford Motor Co. specifications, specify engraved legend. Cannot be used on standard cast or sheet metal enclosures.
- Ⓢ Slightly larger than standard size for legends requiring more space—fits cast enclosures.
- Ⓢ Square legend plates have a satin aluminum field. Color is on lower portion.
- Ⓢ Recommended only when mounting on minimum centers (less than 1-3/4 in [44.5 mm] vertical centers).
- Ⓢ Can be used on top row only of any enclosure.

1.6

Pushbuttons and Indicating Lights




30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Enclosures

Die Cast, Polyester and Stainless Steel Enclosures

Enclosures (Case and Cover)—Surface Mounting[Ⓢ]

| | Number of Elements | One Contact Block Depth Part Number | Two Contact Block Depth Part Number |
|--|--|-------------------------------------|-------------------------------------|
| Die Cast Enclosure  | Die Cast Enclosure—In-Line^{ⓈⓈⓈ} NEMA 4, 4X, 12, 13 | | |
| | 1 | 10250TN1 | 10250TN11 |
| | 2 | 10250TN2 | 10250TN12 |
| | 3 | 10250TN3 | 10250TN13 |
| | 4 | — | 10250TN14 |
| Polyester Enclosure  | Polyester[Ⓢ]—In-Line NEMA 3, 4X, 12 | | |
| | 1 | — | E34N51 |
| | 2 | — | E34N52 |
| | 3 | — | E34N53 |
| | 4 | — | E34N54 |
| Stainless Steel Enclosure  | Stainless Steel^{ⓈⓈ}—In-Line NEMA 4, 4X, 12 | | |
| | 1 | — | 10250TN33 |
| | 2 | — | 10250TN34 |
| | 3 | — | 10250TN35 |
| | 4 | — | 10250TN36 |

Dimensions, see **Page 69**.

Mounting Instructions

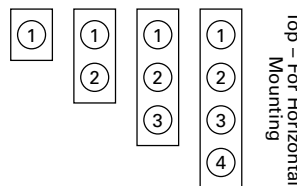
Two-position joystick must be used with two contact block deep enclosures (maximum number of contact blocks = 1). Four-position joysticks cannot be used within these enclosures.

One and Two Contact Block Depth Enclosures



Enclosure Layouts

Top – For Vertical Mounting



Notes

- Ⓢ For spacing increments, see **Page 66**.
- Ⓢ All die cast enclosures can be converted to base mounting of contact blocks, with spacers 10250TA22 or 10250TA23. See listing on **Page 50**.
- Ⓢ When used with E30 pushbuttons, only the one element enclosure can be used.
- Ⓢ When used with resistor light units, only the 2 contact block depth enclosure can be used.
- Ⓢ 14 gauge, type 304.

Die Cast and Stainless Steel—Flush Mount, Covers Only

Flush Mounting Covers



Covers Only—Flush Mounting

| Number of Elements | Eaton Part Number | Eaton Part Number |
|---|---------------------------|---------------------------|
| Flush Die Cast Covers | | |
| | In-Line Deep Cover | In-Line Flat Cover |
| 1 | 10250TF11 | 10250TF1 |
| 2 | 10250TF12 | 10250TF2 |
| 3 | 10250TF13 | 10250TF3 |
| 4 | 10250TF14 | 10250TF4 |
| In-Line Stainless Steel Flush Plates[Ⓢ] | | |
| | With Pullbox | Without Pullbox |
| 1 | 10250TS10 | 10250TS1 |
| 2 | 10250TS11 | 10250TS2 |
| 3 | 10250TS12 | 10250TS3 |
| 4 | 10250TS14 | 10250TS4 |

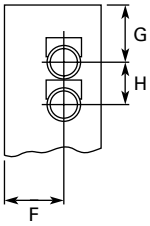
Dimensions, see Page 70.

Spacing Increments

Approximate Dimensions in Inches (mm)

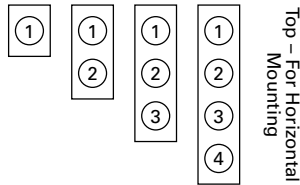
| Type | F | G | H |
|-----------------|-------------|------------------|-------------|
| Die cast | 2.44 (62) | 2.5 (63.5) | 1.88 (47.8) |
| Polyester | 1.88 (47.8) | Min. 2.13 (54.1) | 2.25 (57.2) |
| Stainless steel | 1.69 (42.9) | Min. 1.73 (43.9) | 2.25 (57.2) |

Spacing Increments for Enclosures



Enclosure Layouts

Top – For Vertical Mounting



Note

[Ⓢ] Not oiltight. NEMA 1 applications only.

1.6

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Contact Blocks

Standard Contact Blocks

- UL A600/P600 rated
- Color-coded plungers—red/green for NC/NO circuits
- Silver contact tips with “reliability nibs”
- Gray (opaque) or amber (translucent) housings
- Pressure plate or spade terminals
- Fingerproof shrouds (for pressure terminals only)

Logic Level Contact Blocks

- UL A600/P600 rated
- Color-coded plungers
- Inert palladium knife-blade contacts
- Gray (opaque) housings
- Pressure plate or spade terminals

Special Function Contact Blocks

- UL A600/P600 rated
- Color-coded plungers
- Silver contact tips with “reliability nibs”
- Gray (opaque) housings
- Pressure plate terminals only

Special Purpose Contact Block

- Maximum 300V rated
- Black plungers
- Silver contact tips with “reliability nibs”
- Black (opaque) housings
- Pressure plate terminals only
- Fingerproof shrouds not available

Reliability Nibs

Reliability nibs are the hallmark of Eaton’s contact blocks. A pointed silver nib on the contact tip ensures reliable switching from logic level (5V) up to 600V applications. Therefore standard contact blocks can be used for most logic level applications where the contacts are not exposed to any harsh environmental conditions.

Palladium Contacts

Palladium, which is more inert than gold, is well suited for voltages and currents approaching zero and is recommended for applications where environmental conditions are a factor.

Maximum Contact Block Mounting per Operator Type

| Operator | Max. Stack |
|--|------------|
| Pushbuttons | 6 |
| Push-pull operators | 2 |
| Roto-push operators | 4 |
| Two- or three-position selector switches | 6 |
| Four-position selector switches | 4 |
| Joysticks | 4 |

10250T1



Contact Blocks

| Symbol | Circuit | Description [Ⓞ] | Standard Pressure Terminal Part Number | Spade Terminal [Ⓞ] Part Number | Logic Level Pressure Terminal Part Number | Spade Terminal [Ⓞ] Part Number |
|--|-----------|--|--|---|---|---|
| Blank No Plunger | 1NC | Stack up to six blocks (six circuits) unless otherwise noted. | 10250T51 | 10250T59 | 10250T51E | 10250T59E |
| Blank No Plunger | 1NO | Stack up to six blocks six circuits) unless otherwise noted. | 10250T53 | 10250T60 | 10250T53E | 10250T60E |
| Blank No Plunger | NO-NC | Stack up to six blocks (12 circuits) unless otherwise noted. | 10250T1 | 10250T40 | 10250T1E | 10250T40E |
| Blank No Plunger | 2NC | Stack up to six blocks (12 circuits) unless otherwise noted. | 10250T3 | 10250T42 | 10250T3E | 10250T42E |
| Blank No Plunger | 2NO | Stack up to six blocks (12 circuits) unless otherwise noted. | 10250T2 | 10250T41 | 10250T2E | 10250T41E |
| Special Function Blocks[Ⓞ] | | | | | | |
| Blank No Plunger | LONC | Late opening NC. Stack up to six blocks (six circuits) unless otherwise noted. | 10250T71[Ⓞ] | — | 10250T71E[Ⓞ] | — |
| Blank No Plunger | ECNO-NC | Early closing NO and standard NC. Stack up to six blocks unless otherwise noted. | 10250T47^{ⓄⓈ} | — | 10250T47E[Ⓞ] | — |
| Blank No Plunger | ECNO-NO | Early closing NO and standard NO. Stack up to four blocks unless otherwise noted. | 10250T57^{ⓄⓈ} | — | 10250T57E[Ⓞ] | — |
| Blank No Plunger | 2LONC | Two late opening NC contacts. Stack up to six blocks unless otherwise noted. | 10250T45[Ⓞ] | — | 10250T45E[Ⓞ] | — |
| Blank No Plunger | LONC-ECNO | Overlapping contacts. Stack up to four blocks unless otherwise noted. | 10250T55^{ⓄⓈ} | — | 10250T55E[Ⓞ] | — |
| Special Purpose Blocks[Ⓞ] | | | | | | |
| Blank No Plunger | 2NO-2NC | Four circuits in single block depth. Rated 300V max. Stack up to four blocks unless otherwise noted. | 10250T44[Ⓞ] | — | | |

Notes

- Ⓞ All 10250T contact blocks shown are suitable for use on standard 10250T and E34 operators. These contact blocks are not suitable for Class I Division 2 type 10250T or E34 devices.
- Ⓢ Contact blocks with spade terminals are limited to a maximum of one contact block per operator and minimum spacing between devices is 2.5 in (63.5 mm). Not suitable for use in 10250T or E34 enclosures. Also available in amber housing. Not available with fingerproof shrouds.
- Ⓞ Special function contact blocks are not suitable for use with roto-push operators, three-position push-pull operators, or four-position selector switches.
- Ⓞ ECNO contact blocks are not suitable for use with two-position joysticks or when operators are used with padlock attachments.
- Ⓞ Special purpose 10250T44 contact blocks are not suitable on selector switches or roto-push operators. Okay to use with three-position push-pull operators only on low voltage (30V or less) circuits. Fingerproof shrouds not available.

1.6

Pushbuttons and Indicating Lights

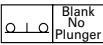
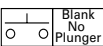
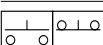
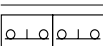
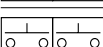
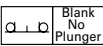
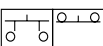
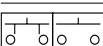
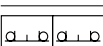
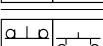
30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

10250T1CP



Contact Blocks with Fingerproof Shrouds

| Symbol | Circuit | Description ^① | Standard Pressure Terminal ^② Part Number | Logic Level Pressure Terminal ^② Part Number |
|--|-----------|---|---|--|
|  Blank No Plunger | 1NC | Stack up to six blocks (six circuits) unless otherwise noted. | 10250T51P | 10250T51EP |
|  Blank No Plunger | 1NO | Stack up to six blocks (six circuits) unless otherwise noted. | 10250T53P | 10250T53EP |
|  NO-NC | NO-NC | Stack up to six blocks (12 circuits) unless otherwise noted. | 10250T1P | 10250T1EP |
|  2NC | 2NC | Stack up to six blocks (12 circuits) unless otherwise noted. | 10250T3P | 10250T3EP |
|  2NO | 2NO | Stack up to six blocks (12 circuits) unless otherwise noted. | 10250T2P | 10250T2EP |
| Special Function Blocks^③ | | | | |
|  Blank No Plunger | LONC | Late opening NC. Stack up to six blocks (six circuits) unless otherwise noted. | 10250T71P^④ | 10250T71EP^④ |
|  ECNO-NC | ECNO-NC | Early closing NO and standard NC. Stack up to six blocks unless otherwise noted. | 10250T47P^{⑤⑥} | 10250T47EP^⑤ |
|  ECNO-NO | ECNO-NO | Early closing NO and standard NO. Stack up to four blocks unless otherwise noted. | 10250T57P^{⑤⑥} | 10250T57EP^⑤ |
|  2LONC | 2LONC | Two late opening NC contacts. Stack up to six blocks unless otherwise noted. | 10250T45P^④ | 10250T45EP^④ |
|  LONC-ECNO | LONC-ECNO | Overlapping contacts. Stack up to four blocks unless otherwise noted. | 10250T55P^{⑤⑥} | 10250T55EP^⑤ |



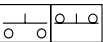
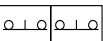
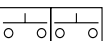
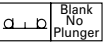
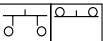
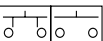
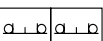
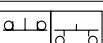
Notes

- ① All 10250T contact blocks shown are suitable for use on standard 10250T and E34 operators. These contact blocks are not suitable for Class I Division 2 type 10250T or E34 devices.
- ② To order contact blocks with translucent amber housing, change suffix P to **CP** in Catalogue number e.g. 10250T51**CP**.
- ③ ECNO contact blocks are not suitable for use with two-position joysticks or when operators are used with padlock attachments.
- ④ Special function contact blocks are not suitable for use with roto-push operators, three-position push-pull operators, or four-position selector switches.

10250T1C



Amber Contact Blocks

| Symbol | Circuit | Description [Ⓞ] | Standard Pressure Terminal [Ⓞ] Part Number | Spade Terminal [Ⓞ] Part Number | Logic Level Pressure Terminal [Ⓞ] Part Number | Spade Terminal [Ⓞ] Part Number |
|--|-----------|---|---|---|--|---|
|  Blank No Plunger | 1NC | Stack up to six blocks (six circuits) unless otherwise noted. | 10250T51C | 10250T59C | 10250T51EC | 10250T59EC |
|  Blank No Plunger | 1NO | Stack up to six blocks (six circuits) unless otherwise noted. | 10250T53C | 10250T60C | 10250T53EC | 10250T60EC |
|  | NO-NC | Stack up to six blocks (12 circuits) unless otherwise noted. | 10250T1C | 10250T40C | 10250T1EC | 10250T40EC |
|  | 2NC | Stack up to six blocks (12 circuits) unless otherwise noted. | 10250T3C | 10250T42C | 10250T3EC | 10250T42EC |
|  | 2NO | Stack up to six blocks (12 circuits) unless otherwise noted. | 10250T2C | 10250T41C | 10250T2EC | 10250T41EC |
| Special Function Blocks[Ⓞ] | | | | | | |
|  Blank No Plunger | LONC | Late opening NC. Stack up to six blocks (six circuits) unless otherwise noted. | 10250T71C[Ⓞ] | — | 10250T71EC[Ⓞ] | — |
|  | ECNO-NC | Early closing NO and standard NC. Stack up to six blocks unless otherwise noted. | 10250T47C^{ⓄⓄ} | — | 10250T47EC[Ⓞ] | — |
|  | ECNO-NO | Early closing NO and standard NO. Stack up to four blocks unless otherwise noted. | 10250T57C^{ⓄⓄ} | — | 10250T57EC[Ⓞ] | — |
|  | 2LONC | Two late opening NC contacts. Stack up to six blocks unless otherwise noted. | 10250T45C[Ⓞ] | — | 10250T45EC[Ⓞ] | — |
|  | LONC-ECNO | Overlapping contacts. Stack up to four blocks unless otherwise noted. | 10250T55C^{ⓄⓄ} | — | 10250T55EC[Ⓞ] | — |

Notes

- Ⓞ All 10250T contact blocks shown are suitable for use on standard 10250T and E34 operators. These contact blocks are not suitable for Class I Division 2 type 10250T or E34 devices.
- Ⓞ To order amber contact blocks with fingerproof shrouds, change suffix to **CP** in the Catalogue number e.g. 10250T51**CP**. Not available with spade terminals.
- Ⓞ Contact blocks with spade terminals are limited to a maximum of one contact block per operator and minimum spacing between devices is 2.5 in (63.5 mm). Not suitable for use in 10250T or E34 enclosures. Also available in amber housing. Not available with fingerproof shrouds.
- Ⓞ Special function contact blocks are not suitable for use with roto-push operators, three-position push-pull operators, or four-position selector switches.
- Ⓞ ECNO contact blocks are not suitable for use with two-position joysticks or when operators are used with padlock attachments.

1.7

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Replacement Parts

Replacement Lamps—For 10250T Illuminated Operators

| Mfg. Lamp Type | Voltage | Base Style | Application | Eaton Part Number |
|----------------|---------|-----------------|---|-------------------|
| 120MB | 120V | T 3-1/4 bayonet | 10250T resistor indicating light | 28-3044 |
| #267 | 6.3V | T 3-1/4 bayonet | 10250T flasher | 10250ED986-4 |
| #755 | 6.3V | T 3-1/4 bayonet | 10250T transformer, PresTest and full voltage | 28-2202 |
| #756 | 12V | T 3-1/4 bayonet | 10250T full voltage | 28-5184 |
| #757 | 24V | T 3-1/4 bayonet | 10250T full voltage | 28-5185 |
| #1828 | 32V | T 3-1/4 bayonet | 10250T full voltage | 28-5186 |
| #1835 | 55V | T 3-1/4 bayonet | 10250T resistor | 28-5187 |
| NE48 | 120V | T 4-1/2 bayonet | 10250T neon | 28-494 |
| NE51H-R22 | 120V | T 3-1/4 bayonet | 10250T neon | 28-3754 |
| NE51H-R68 | 240V | T 3-1/4 bayonet | 10250T neon | 28-3755 |

Standard LED Lamp



Replacement LED Lamps—For 10250T, E34 and E22 Units

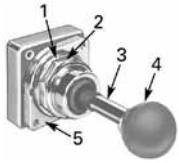
| Voltage | Color | Continuous AC/DC Part Number | | |
|---------|--------|------------------------------|-------------------------|----------------|
| | | AC/DC Part Number | Flashing AC Part Number | DC Part Number |
| 6–12V | Red | E22LED612RN | E22LED006RAF | E22LED006RDF |
| | Orange | E22LED612ON | E22LED006OAF | E22LED006ODF |
| | Yellow | E22LED612YN | E22LED006YAF | E22LED006YDF |
| | Green | E22LED612GN | E22LED006GAF | E22LED006GDF |
| | Blue | E22LED612BN | E22LED006BAF | E22LED006BDF |
| | White | E22LED612WN | E22LED006WAF | E22LED006WDF |
| 24V | Red | E22LED024RN | E22LED024RAF | E22LED024RDF |
| | Orange | E22LED024ON | E22LED024OAF | E22LED024ODF |
| | Yellow | E22LED024YN | E22LED024YAF | E22LED024YDF |
| | Green | E22LED024GN | E22LED024GAF | E22LED024GDF |
| | Blue | E22LED024BN | E22LED024BAF | E22LED024BDF |
| | White | E22LED024WN | E22LED024WAF | E22LED024WDF |
| 48V | Red | E22LED048RN | E22LED048RAF | E22LED048RDF |
| | Orange | E22LED048ON | E22LED048OAF | E22LED048ODF |
| | Yellow | E22LED048YN | E22LED048YAF | E22LED048YDF |
| | Green | E22LED048GN | E22LED048GAF | E22LED048GDF |
| | Blue | E22LED048BN | E22LED048BAF | E22LED048BDF |
| | White | E22LED048WN | E22LED048WAF | E22LED048WDF |
| 60V | Red | E22LED060RN | E22LED060RAF | E22LED060RDF |
| | Orange | E22LED060ON | E22LED060OAF | E22LED060ODF |
| | Yellow | E22LED060YN | E22LED060YAF | E22LED060YDF |
| | Green | E22LED060GN | E22LED060GAF | E22LED060GDF |
| | Blue | E22LED060BN | E22LED060BAF | E22LED060BDF |
| | White | E22LED060WN | E22LED060WAF | E22LED060WDF |
| 120V | Red | E22LED120RN | E22LED120RAF | E22LED120RDF |
| | Orange | E22LED120ON | E22LED120OAF | E22LED120ODF |
| | Yellow | E22LED120YN | E22LED120YAF | E22LED120YDF |
| | Green | E22LED120GN | E22LED120GAF | E22LED120GDF |
| | Blue | E22LED120BN | E22LED120BAF | E22LED120BDF |
| | White | E22LED120WN | E22LED120WAF | E22LED120WDF |

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1.7

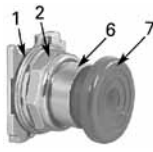
1



Two-Position Joystick Operator



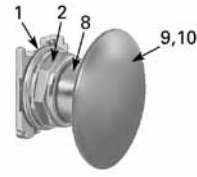
Flush Head Pushbutton Operator



Mushroom Head Pushbutton Operator



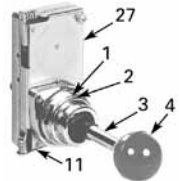
Mushroom Head Operator with Padlock Attachment



Jumbo Mushroom Head Operator



Knob-Operated Selector Switch Operator



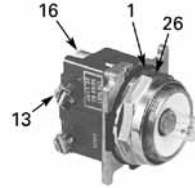
Four-Position Joystick Operator (without Latch)



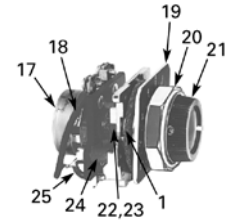
Illuminated Pushbutton Operator



Full Voltage, Resistor and Transformer Type Illuminated Selector Switch



Transformer Type Indicating Light



Potentiometers

10250T Style Operator Replacement Parts

| Item No. | Description | No. Req. | Eaton Part Number |
|----------|---|----------|-------------------|
| 1 | Gasket | 1 | 16-1548 |
| 2 | Mounting nut | 1 | 15-1530 |
| 3 | Handle | 1 | 24-5045 |
| 4 | Knob | 1 | 53-3157 |
| | Knob (not shown) for joystick operator with latch | 1 | 53-3159 |
| 5 | Common gate (supplied with operator) | 2 | 16-3400 |
| 6 | Set screw (#6-32 x 0.250 in long hollow hex) | 2 | 11-2014 |
| 7 | Mushroom head button (includes [2] Item 6) | 1 | As Req. Below |
| | Black | — | 53-1317 |
| | Red | — | 53-1317-2 |
| | Yellow | — | 53-1317-3 |
| | Green | — | 53-1317-4 |
| | Blue | — | 53-1317-22 |
| 8 | Set screw (#10-32 x 0.250 in long hollow hex) | 2 | 11-544 |
| 9 | Jumbo mushroom head button (aluminum—includes [2] Item 8) | 1 | As Req. Below |
| | Red | — | 53-1317-9 |
| | Black | — | 53-1317-10 |
| | Yellow | — | 53-1317-11 |
| | Green | — | 53-1317-12 |
| 10 | Jumbo mushroom head button (aluminum—red EMERG. STOP does not include Item 8) | 1 | 53-1349-18 |
| 11 | Position gate: | | |
| | Two-position | 1 | 54-7278 |
| | Three-position | 1 | 54-7173 |
| | Four-position | 1 | 54-12278 |
| | Eight-position | 1 | 54-12279 |
| 12 | Mounting screw (#6-32 x 0.710 in long) | 2 | 10250TA79 |
| | Washer | 2 | 16-2038 |
| 13 | Terminal screw and lug (captve) | Req. | 80-5502KIT |

| Item No. | Description | No. Req. | Eaton Part Number |
|----------|--|----------|-------------------|
| 14 | Gasket (supplied with basic unit) | 1 | 32-803 |
| 15 | Round head screw (#4-40 x 0.344 in long) (supplied with basic unit) | 2 | 11-4553 |
| 16 | Mounting screw | 2 | 11-1632 |
| 17 | Simple potentiometer (does not include items 18, 28 or 29) | 1 | As Req. Below |
| | 1,000 ohms | — | 41-782-2 |
| | 2,500 ohms | — | 41-782-3 |
| | 5,000 ohms | — | 41-782-10 |
| | 10,000 ohms | — | 41-782-4 |
| | 25,000 ohms | — | 41-782-5 |
| | 50,000 ohms | — | 41-782-6 |
| 18 | Connector (includes screw and lug) | 2 | 25-1851 |
| 19 | Indicating plate | 1 | As Req. Above |
| | Standard size (without legend) | — | 30-4460 |
| | Large size (specify legend) | — | 10250TR30 |
| 20 | Retaining nut | 1 | 15-1547 |
| 21 | Knob | 1 | 53-1314 |
| | Socket set screw (#6-32 x 0.250 in long) | 2 | 11-2014 |
| 22 | Coupling | 1 | 29-3749-2 |
| 23 | Set screw (#6-32 x 0.188 in long) | 1 | 11-1199 |
| 24 | Spacer | 2 | 56-1066-18 |
| 25 | Connector (includes screw and lug) | 1 | 25-1851-2 |
| 26 | Mounting nut | 1 | 15-1938 |
| 27 | Four-position joystick operating mechanism (complete) | 1 | 24-6565 |
| 28 | Four-position joystick operating mechanism (not shown) (with latch) complete | 1 | 24-6565-2 |
| 29 | Spring loaded latch | 1 | 52-1214-2 |
| 30 | Hand operated latch | 1 | 52-913-3 |

1.8

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1 Technical Data and Specifications

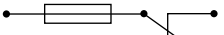
Mechanical Ratings

| Description | Specification |
|----------------------------------|-----------------------------------|
| Frequency of Operation | |
| All pushbuttons | 6000 operations/hr. |
| Key and lever selection switches | 3000 operations/hr. |
| Auto-latch devices | 1200 operations/hr. |
| Life | |
| Pushbuttons | 10 x 10 ⁶ operations |
| Contact blocks | 10 x 10 ⁶ operations |
| PresTest units | 10 x 10 ⁶ operations |
| Lever and key selector switches | 0.25 x 10 ⁶ operations |
| Twist to release pushbuttons | 0.3 x 10 ⁶ operations |
| Shock Resistance | |
| Duration | 20 ms >5g |

General Specifications

| Description | Specification |
|--|---|
| Climate Conditions | |
| Operating temperature | 1° to 150°F (–17° to 66°C) |
| Storage temperature | –40° to 176°F (–40° to 80°C) |
| Altitude | 6,562 ft (2,000m) |
| Humidity | Max. 95% RH at 60°C |
| Terminals | |
| Marking | NC-NO on the contact block to meet the NEMA requirements. Dual marking system 1–2 for normally closed, 3–4 for normally open to meet BS5472 (Cenelec EN50 005). |
| Clamps | Terminals are saddle clamp type for 1 x 22 AWG (0.34 mm ²) to 2 x 14 AWG (2.5 mm ²) conductors |
| Torque | 7 lb-in (0.8 Nm) |
| Degree of protection against direct electrical contact | IP2X with fingerproof shroud |
| Light Units | |
| Transformers | Will withstand short-circuit for 1 hour per IEC 60997-5-1 |
| Bulbs—average life: | |
| Transformer type | 20,000 hrs. |
| Resistor/direct voltage type | 2500 hrs. minimum at rated voltage |
| LED | 60,000 to 100,000 hrs. |

Electrical Ratings

| Description | Specification |
|---|--|
| Insulation | $U_i = 660 \text{ Vac or Vdc}$ |
| Thermal | $I_{th} = 10\text{A}$ |
| 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— 1×10^6 operations |
| 5A | 250V pf 0.4— 1×10^6 operations |
| 2A | 600V pf 0.4— 1×10^6 operations |
| Switching capacity | |
| AC 15 rated make/break ($11 \times I_n$ at $1.1 \times U_n$) | |
| 6A | 120V pf 0.3 |
| 4A | 240V pf 0.3 |
| 2A | 660V pf 0.3 |
| DC13 rated make/break ($1.1 \times I_n$ at $1.1 \times U_n$) | |
| 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/Vdc |

Electrical Ratings—Contact Block

| Description | 50 Vac or 60 Hz | | | | Vdc | | |
|---|-----------------|------|------|------|-------|-----|------|
| | 120 | 240 | 480 | 600 | 24/28 | 125 | 250 |
| Meet or Exceed NEMA Rating Designations A600, A300 and B300 for AC and P600 for DC | | | | | | | |
| Make and emerg. interrupting capacity (amp) | 60 | 30 | 15 | 12 | 5.7 | 1.1 | 0.55 |
| Normal load break (amp) | 6 | 3 | 1.5 | 1.2 | 5.7 | 1.1 | 0.55 |
| Thermal current (amp) | 10 | 10 | 10 | 10 | 5.0 | 5.0 | 5.0 |
| Voltamperes: | | | | | | | |
| Make and emerg. interrupting capacity | 7200 | 7200 | 7200 | 7200 | 138 | 138 | 138 |
| Normal load break | 720 | 720 | 720 | 720 | 138 | 138 | 138 |

1.8

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1

Mounting Options

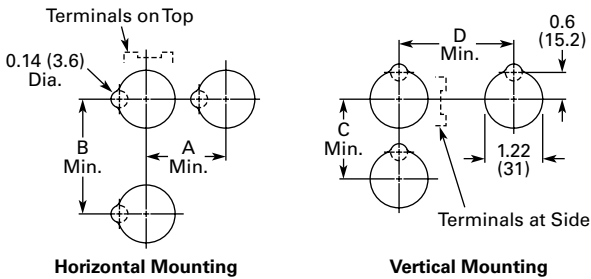
Panel Thickness

- Minimum: 0.06 in (1.6 mm)
- Maximum: 0.25 in (8 mm) including legend plate
- Maximum can be increased to 0.375 in (15.9 mm) using optional retaining nut
 - Indicating light: 10250TA30
 - Pushbutton/selector switch: 10250TA31

Mounting Matrix

| Legend Plate | Dimensions in Inches (mm) | | | |
|--------------|---------------------------|-------------|-------------|-------------|
| | A | B | C | D |
| Small | 1.63 (41.3) | 2.25 (57.2) | 2.25 (57.2) | 1.63 (41.3) |
| Medium | 1.75 (44.5) | 2.25 (57.2) | 2.25 (57.2) | 1.75 (44.5) |
| Large | 2.25 (57.2) | 2.25 (57.2) | 2.25 (57.2) | 2.25 (57.2) |

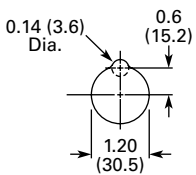
Mounting Options in Inches (mm)



Horizontal mounting means terminals are located top and bottom of contact block. Vertical mounting means terminals are left and right of contact block. This allows close spacing of adjacent operators with easy access to terminals.

Locating nib hole or notch is 0.14 in (3.6 mm) #29 drill.

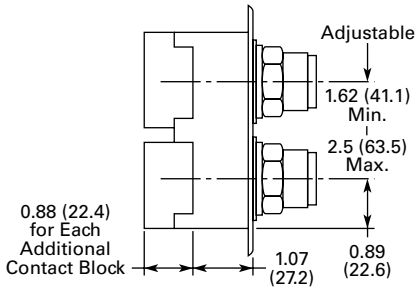
Drilling Dimensions in Inches (mm)



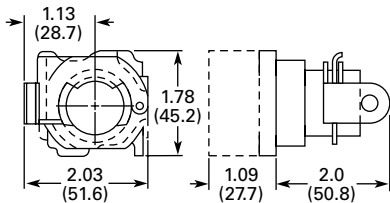
Dimensions

Approximate Dimensions in Inches (mm)

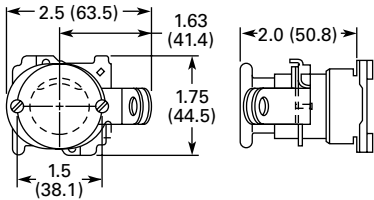
Mechanically Interlocked Pushbutton Operators



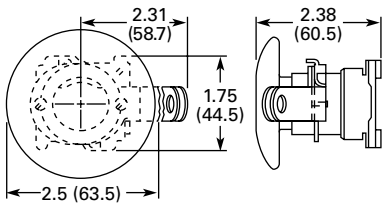
Lockout Pushbutton Operator Padlockable in the Down Position



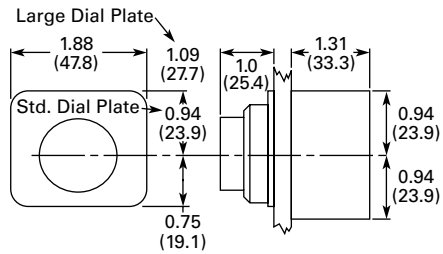
Lockout Pushbutton Operator Padlockable in the Up Position—Mushroom Head



Lockout Pushbutton Operator Padlockable in the Up Position—Jumbo Mushroom Head

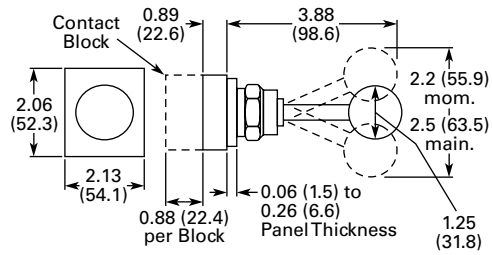


Potentiometer

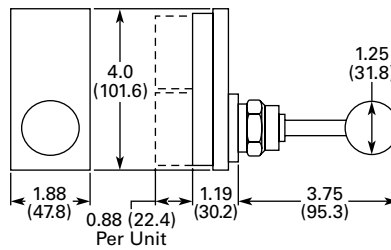


| Potentiometer | A | B | C |
|------------------------|-------------|-------------|-------------|
| 2 watt single | 1.31 (33.3) | 0.94 (23.9) | 0.94 (23.9) |
| 25 watt—up to 25 mohms | 2.38 (60.5) | 1.19 (30.2) | 0.81 (20.6) |
| 50 mohms | 2.56 (65) | 1.69 (42.9) | 1.25 (31.8) |

Two-Position Joystick Operator



Four-Position Joystick Operator



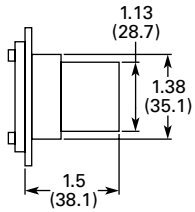
1.9

Pushbuttons and Indicating Lights

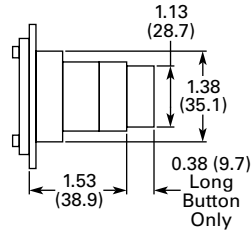
30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1 Approximate Dimensions in Inches (mm)

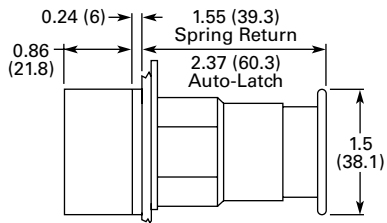
Key Operated Pushbutton Operator



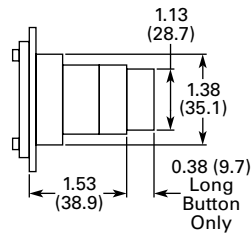
Operator and Cam



Latch-In, Twist-to-Release Operator Only with Button



Special Rotor Latch

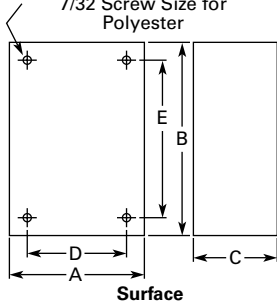


Approximate Dimensions in Inches (mm)

Surface Mounting

Die Cast, Polyester and Stainless Steel Enclosures

4 Mtg. Holes — 10-32 Screw Size for
1 – 4 Element Die Cast/
Stainless Steel Enclosure
7/32 Screw Size for
Polyester



| Number of Elements | Element Arrangement | Wide A | High B | Deep C | Mounting D | E | Conduit Entrance |
|------------------------|---------------------|-------------|---------------|-------------|-------------|---------------|------------------|
| Die Cast | | | | | | | |
| 1 | In-line | 3.88 (98.6) | 4.0 (101.6) | 3.0 (76.3)⊙ | 2.69 (68.3) | 3.25 (82.6) | 3/4 |
| 2 | | 3.88 (98.6) | 5.88 (149.4) | 3.0 (76.3)⊙ | 2.69 (68.3) | 5.13 (130.3) | |
| 3 | | 3.88 (98.6) | 7.75 (196.9) | 3.0 (76.3)⊙ | 2.69 (68.3) | 7.0 (177.8) | 1 |
| 4 | | 3.88 (98.6) | 9.63 (244.6) | 3.0 (76.3)⊙ | 2.69 (68.3) | 8.88 (225.6) | |
| Polyester | | | | | | | |
| 1 | In-line | 3.81 (96.8) | 6.63 (168.4) | 3.38 (85.9) | 2.94 (74.7) | 4.88 (124.0) | ⊙ |
| 2 | | 3.81 (96.8) | 6.63 (168.4) | 3.38 (85.9) | 2.94 (74.7) | 4.88 (124.0) | |
| 3 | | 3.81 (96.8) | 8.88 (225.6) | 3.38 (85.9) | 2.94 (74.7) | 7.13 (181.1) | |
| 4 | | 3.81 (96.8) | 11.13 (282.7) | 3.38 (85.9) | 2.94 (74.7) | 9.38 (238.3) | |
| Stainless Steel | | | | | | | |
| 1 | In-line | 3.00 (76.2) | 3.50 (88.9) | 3.00 (76.2) | 1.50 (38.1) | 4.25 (108.0) | ⊙ |
| 2 | | 3.50 (88.9) | 6.75 (171.5) | 3.00 (76.2) | 1.50 (38.1) | 7.50 (190.5) | |
| 3 | | 3.50 (88.9) | 9.00 (228.6) | 3.00 (76.2) | 1.50 (38.1) | 9.00 (228.6) | |
| 4 | | 3.50 (88.9) | 11.25 (285.8) | 3.00 (76.2) | 1.50 (38.1) | 12.00 (304.8) | |

Notes

- ⊙ Depth given is for two contact block deep stations. One contact block deep stations subtract 3/4 in (19.1 mm).
- ⊙ No conduit entrance holes provided. Drill as required.

1.9

Pushbuttons and Indicating Lights

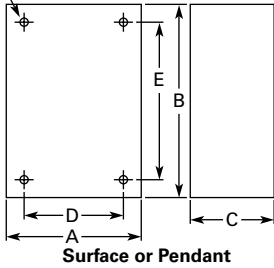
30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1 Approximate Dimensions in Inches (mm)

Flush Mounting

Die Case and Stainless Steel Covers Only

4 Mtg. Holes - 10-32 Screw Size
for 1-11 Element Encl, 1/4-20
Screw Size for 12 Element
and Larger



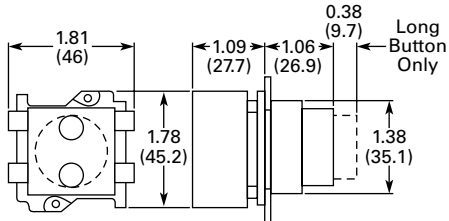
| Number of Elements | Wide A | High B | Deep C | Mounting D | E |
|------------------------|-------------|---------------|--------------|-------------|--------------|
| Die Cast | | | | | |
| 1 | 3.88 (98.6) | 4.0 (101.6) | 0.25 (6.4)Ⓢ | 3.50 (88.9) | 3.63 (92.2) |
| 2 | 3.88 (98.6) | 5.88 (149.4) | 0.25 (6.4)Ⓢ | 3.50 (88.9) | 5.50 (139.7) |
| 3 | 3.88 (98.6) | 7.75 (196.9) | 0.25 (6.4)Ⓢ | 3.50 (88.9) | 6.0 (152.4) |
| 4 | 3.88 (98.6) | 9.63 (244.6) | 0.25 (6.4)Ⓢ | 3.50 (88.9) | 9.25 (235) |
| Stainless Steel | | | | | |
| 1 | 5.00 (127) | 5.0 (127) | 2.50 (63.5)Ⓢ | 3.25 (82.6) | 1.88 (47.8) |
| 2 | 5.00 (127) | 6.88 (174.8) | 2.50 (63.5)Ⓢ | 3.25 (82.6) | 3.63 (92.2) |
| 3 | 5.00 (127) | 8.63 (219.2) | 2.50 (63.5)Ⓢ | 3.25 (82.6) | 5.50 (139.7) |
| 4 | 5.00 (127) | 10.50 (266.7) | 2.50 (63.5)Ⓢ | 3.25 (82.6) | 7.25 (184.2) |

Notes

- Ⓢ Depth given includes pull box.
- Ⓢ Depth given is for flat cover. Deep cover is 3/4 in (19.1 mm) deeper.

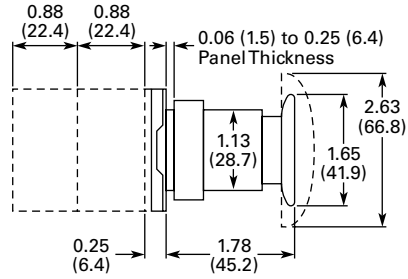
Approximate Dimensions in Inches (mm)

Flush and Long Pushbutton Half Shroud

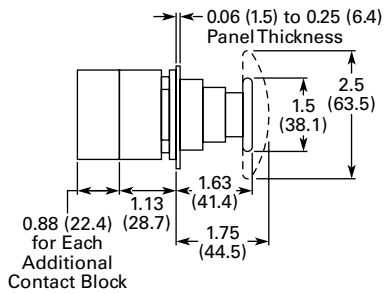


Half Shroud Is Same as Long Pushbutton with Lower Half of Guard Ring Cut Back

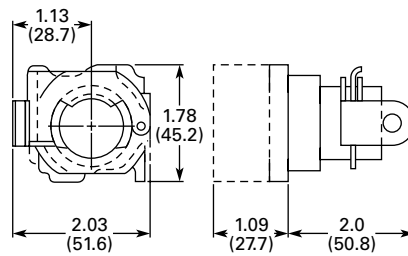
Push-Pull Switch



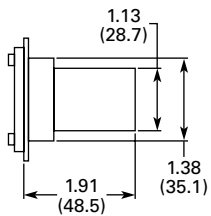
Mushroom and Jumbo Head Pushbutton



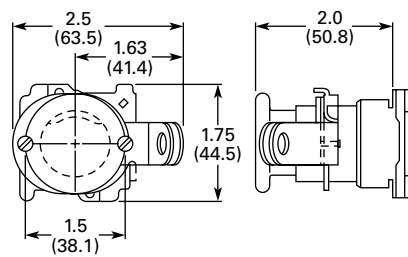
Flush Pushbutton Operator with Padlock Attachment



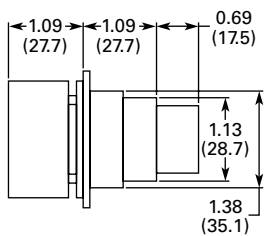
Pushbutton with Cylinder Lock



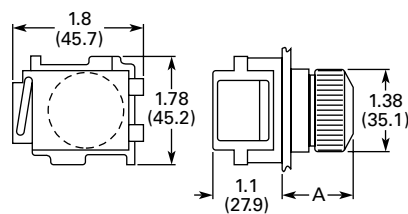
Mushroom Head Pushbutton Operator with Padlock Attachment



Illuminated Pushbutton



Indicating Light—Transformer Type



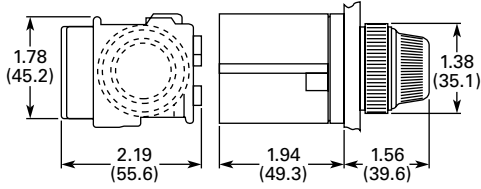
1.9

Pushbuttons and Indicating Lights

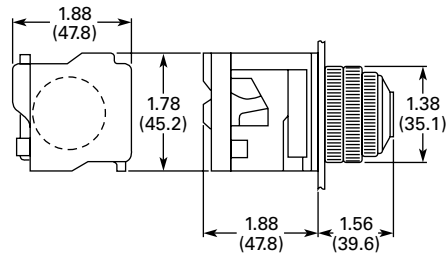
30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1 Approximate Dimensions in Inches (mm)

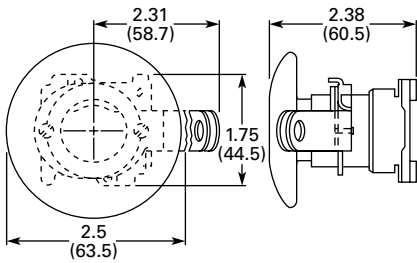
PresTest Indicating Light—Transformer Type



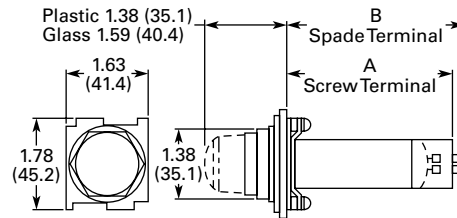
PresTest Indicating Light—Resistor Type



Jumbo Mushroom Head Pushbutton Operator with Padlock Attachment

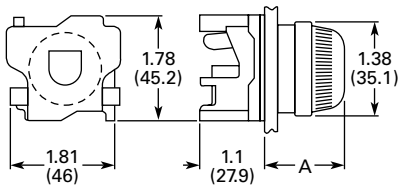


Master Test Indicating Light



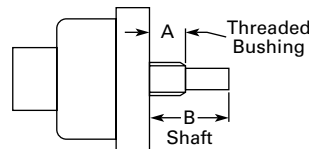
| Description | B | C |
|------------------|--------------|--------------|
| Relay type | 4.38 (111.2) | 4.28 (108.7) |
| Solid-state type | 2.94 (74.7) | 2.88 (73.2) |

Indicating Light—Resistor and Neon Type



| Lens | A |
|---------|-------------|
| Plastic | 1.38 (35.1) |
| Glass | 1.56 (39.6) |

Potentiometer Shaft

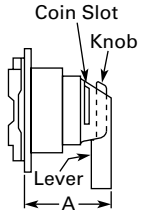


Shaft Dimensions of Potentiometer That C-H Operator Will Accept

| Operator Eaton Part Number | A | B |
|----------------------------|---|-------------------------------------|
| 10250T330 | 0.38 (9.7) dia. x 0.38 (9.7) dia. long | 0.25 (6.4) dia. x 0.63 (16) long |

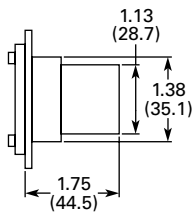
Approximate Dimensions in Inches (mm)

Coin Operated Selector Switch

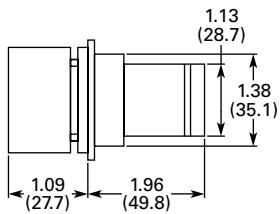


| Operator | Dim. A |
|-----------|-------------|
| Knob | 1.38 (35.1) |
| Lever | 1.50 (38.1) |
| Coin slot | 1.38 (35.1) |

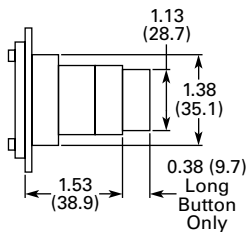
Key Operated Selector Switch



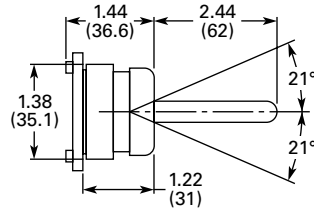
Illuminated Selector Switch



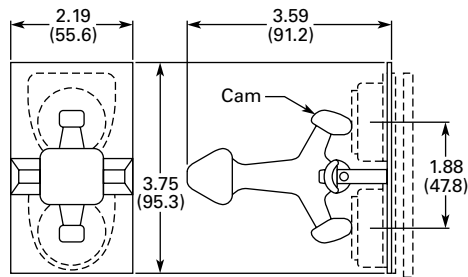
Roto-Push



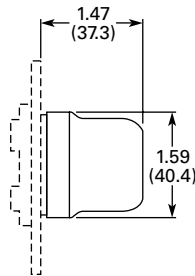
Wobble Stick Catalogue No. 10250TA5



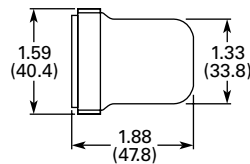
Lever Operator—For Use with Two Vertically Mounted Flush Pushbuttons Catalogue No. 10250TA 14



Flexible Boot—For Protecting Flush or Long Pushbutton Catalogue No. 10250TA3 Typical



Transparent Flexible Boot—For Illuminated Pushbutton Catalogue No. 10250TA25



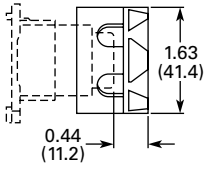
1.9

Pushbuttons and Indicating Lights

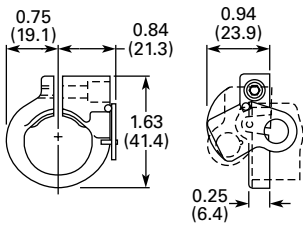
30.5 mm Heavy-Duty Watertight/Oiltight—10250T

1 Approximate Dimensions in Inches (mm)

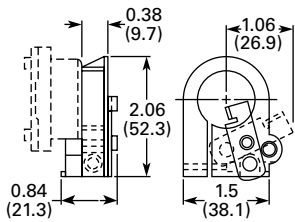
**Padlock Attachment—For Knob Selector Switch
Catalogue No. 10250TA11**



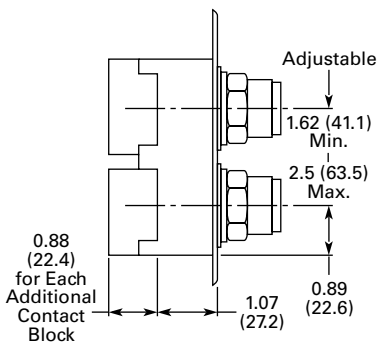
**Padlock Attachment—For Flush Pushbutton
Catalogue No. 10250TA2**



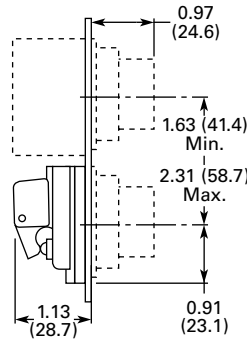
**Padlock Attachment—For Extended Pushbutton
Catalogue No. 10250TA26**



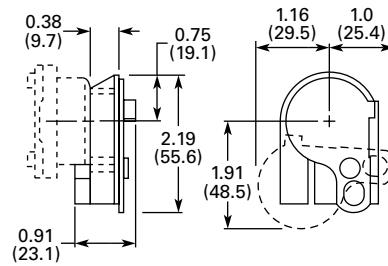
**Maintained Pushbutton
Catalogue No. 10250TA66 Typical**



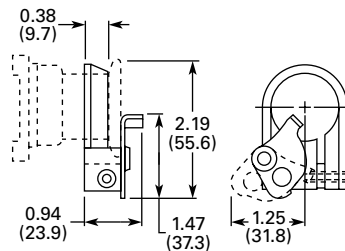
**Maintained Contact Attachment
Catalogue No. 10250TA17 Typical**



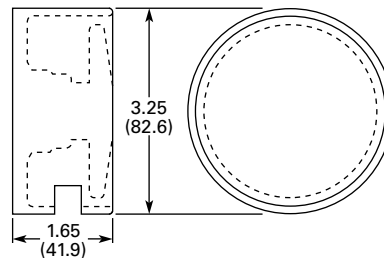
**Padlock Cover Guard for Flush Pushbutton
Catalogue No. 10250TA36**



**Padlock Attachment for Maintained Push-Pull Operator
Catalogue No. 10250TA64**

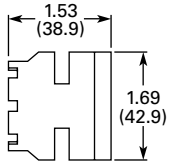


**Protecting Shroud for Jumbo Mushroom Head Button
Catalogue No. 10250TA56**

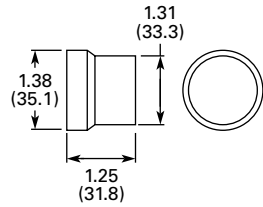


Approximate Dimensions in Inches (mm)

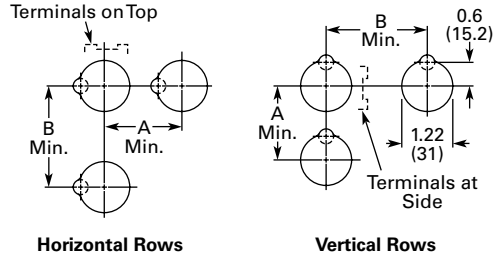
Protecting Shroud for Mushroom Head Button Catalogue No. 10250TA6



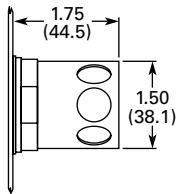
Extended Retaining Nut Catalogue No. 10250TA12



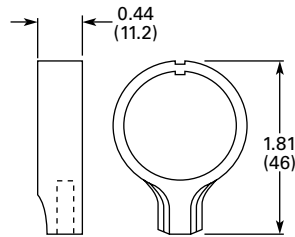
Panel Drilling and Minimum Spacing



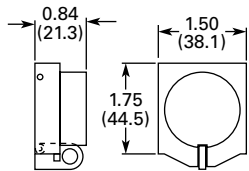
Protecting Shroud for Illuminated Pushbutton Catalogue No. 10250TA15



Lever for Roto-Push Operator Catalogue No. 10250TA13



Padlock Hasp or Flip-Up Guard Catalogue No. 10250TA38



| Legend Plate | A Min. | B Min. |
|---|-------------|-------------|
| 1 or 2 Circuit Contact Blocks | | |
| Small or none | 1.63 (41.4) | 2.25 (57.2) |
| Standard | 1.75 (44.5) | 2.25 (57.2) |
| Jumbo [Ⓞ] | 2.25 (57.2) | 2.25 (57.2) |
| Extra large | 2.50 (63.5) | 2.60 (66) |
| 4 Circuit Contact Block 10250T44 | | |
| Small or none | 1.88 (47.8) | 2.25 (57.2) |
| Standard | 1.88 (47.8) | 2.25 (57.2) |
| Jumbo [Ⓞ] | 2.25 (57.2) | 2.25 (57.2) |
| Extra large | 2.50 (63.5) | 2.60 (66) |

Notes

Locating nib hole or notch is 1.36–1.4 in (34.5–35.6 mm) #29 drill.

[Ⓞ] If jumbo plates are to be placed one above the other vertically, add 0.13 (3.3) to minimum dimensions listed.

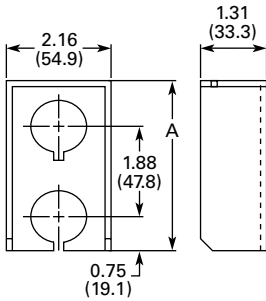
1.9

Pushbuttons and Indicating Lights

30.5 mm Heavy-Duty Watertight/Oiltight—10250T

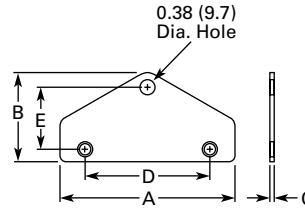
1 Approximate Dimensions in Inches (mm)

Multiple Button Guard



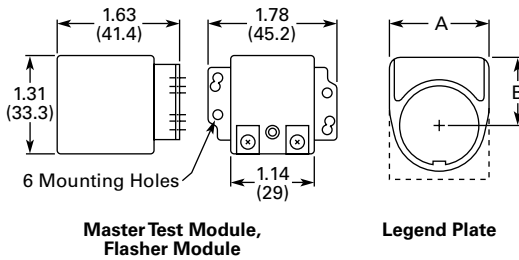
| Number of Elements | A |
|--------------------|---------------|
| 2 | 4.0 (101.6) |
| 3 | 5.88 (149.4) |
| 4 | 7.88 (200.2) |
| 7 | 13.38 (339.9) |

Chain Hook Bracket



| Enclosure Size (No. of Elements) | Wide A | High B | Deep C | Mounting | |
|----------------------------------|-------------|-------------|------------|-------------|-------------|
| | | | | D | E |
| 2, 3 and 4 | 3.75 (95.3) | 1.94 (49.3) | 0.13 (3.3) | 2.69 (68.3) | 1.38 (35.1) |
| 6 and 7 | 4.0 (101.6) | 2.19 (55.6) | 0.13 (3.3) | 2.88 (73.2) | 1.63 (41.4) |

Master Test Module, Flasher Module and Legend Plate



| Legend Plate | A | B |
|--------------------------------|-----------------|--------------|
| 1/2 Round Legend Plates | | |
| Small | 1.56 (39.6) | 0.91 (23.1) |
| Standard | 1.59 (40.4) | 1.07 (27.2) |
| Jumbo | 2.06 (52.3) | 1.53 (38.9) |
| Square Legend Plates | | |
| Small | 1.59 (40.4) sq. | 0.90 (22.9) |
| Standard | 1.75 (44.5) sq. | 1.06 (26.9)Ⓞ |
| Jumbo | 2.19 (55.6) sq. | 1.50 (38.1) |
| Extra large | 2.44 (62.0) sq. | 1.63 (41.4) |

Notes

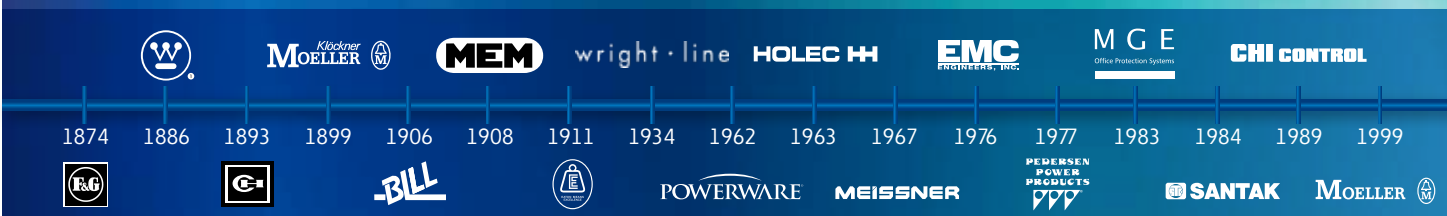
Locating nib hole or notch is 1.36–1.4 in (34.5–35.6 mm) #29 drill.

Ⓞ For plastic legend plate, Dimension B is 1.12 (28.4).



EATON

The power of fusion.



EATON

Powering Business Worldwide

There's a certain energy at Eaton. It's the power of uniting some of the world's most respected names to build a brand you can trust to meet every power management need. The energy created supports our commitment to powering business worldwide.

Eaton is dedicated to ensuring that reliable, efficient and safe power is available when it's needed most. With unparalleled knowledge of electrical power management across industries, experts at Eaton deliver customized, integrated solutions to solve our customers' most critical challenges. Eaton.com/Electrical.

All of the above are trademarks of Eaton Corporation or its affiliates. Eaton has a license to use the Westinghouse brand name in Asia Pacific. ©2012 Eaton Corporation.

Eaton is dedicated to ensuring that reliable, efficient and safe power is available when it's needed most. With unparalleled knowledge of electrical power management across industries, experts at Eaton deliver customised, integrated solutions to solve our customers' most critical challenges.

Our focus is on delivering the right solution for the application. But, decision makers demand more than just innovative products. They turn to Eaton for an unwavering commitment to personal support that makes customer success a top priority.

For more information, visit www.eaton.eu/electrical

Follow us on social media to get the latest product and support information.



Local Distributor/agent

Vanderbijlpark Sales Office
Eaton Electric (South Africa) (Pty) Ltd
P.O. Box 5861
Vanderbijlpark 1900
Tel: (016) 889 2476/7
Fax: (016) 889 2266

Richards Bay Sales Office
Eaton Electric (South Africa) (Pty) Ltd
P.O. Box 1700,
Richards Bay, 3900
Tel: (035) 797 5181/2/3
Fax: (035) 797 5184
Cell : 082 460 3995

Witbank Branch
Eaton Electric (South Africa) (Pty) Ltd
P.O. Box 3798
Witbank 1035
Tel: (013) 692 3066
Fax: (013) 697 3246

Port Elizabeth Sales Office
Eaton Electric (South Africa) (Pty) Ltd
P.O. Box 7327
Newton Park 6055
Tel: (041) 364 1049
Fax: (041) 364 2180

Rustenburg Sales Office
Eaton Electric (South Africa) (Pty) Ltd
P.O. Box 20493, Protea Park, Rustenburg
0305
Tel: (014) 596 7600
Fax: (014) 596 6197

Africa Electrical Sector HQ
Eaton Electric (South Africa) (Pty) Ltd
Private Bag X019
Wadeville 1422
Tel: (011) 824-7400
Fax: (086) 681 9302

Cape Town Branch
Eaton Electric (South Africa) (Pty) Ltd
P.O. Box 3308
Cape Town 8000
Tel: (021) 531 5852
Fax: (021) 531 9953

Durban Branch
Eaton Electric (South Africa) (Pty) Ltd
P.O. Box 132,
Umgeni Business Park,
Durban 4098
Tel: (031) 263 0502
Fax: (031) 263 0756

Eaton Industries Manufacturing GmbH
EMEA Headquarters
7 Route de la Longeraie
1110 Morges
Switzerland

© 2012 Eaton Corporation
All Rights Reserved
All other trademarks are property
of their respective owners.
Printed in South Africa
Publication number CA047001EN

Changes to the products, to the information contained in this document, and to prices are reserved; so are errors and omissions. Only order confirmations and technical documentation by Eaton is binding. Photos and pictures also do not warrant a specific layout or functionality. Their use in whatever form is subject to prior approval by Eaton. The terms and Conditions of Eaton apply, as referenced on Eaton internet pages and Eaton order confirmations.