EATON
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# NEMA Ruggedness at IEC Prices

## Overview

We took advantage of the experience of Cutler-Hammer engineering to take existing product technology and make it better. From the corrosion-resistant anodized mounting rings to the optically-enhanced lenses on our indicators, the HT800 30mm line finishes out your control panel in style. Extended lamps and LEDs provide better side illumination in our indicators and illuminated pushbuttons. Watertight double V gaskets stand between the environment and your control system. Use them indoors or out. They're protected to NEMA 1, 2 , 3, 3R, 4, 4X, 12, and 13.

## 30mm Pushbuttons

Available in green, black, and red

Flush and Extended

Illuminated (in seven colors)

Guarded Illuminated (in seven colors)

## Check out the Features

Color-coded contact blocks

Double V Gasket Seals

Anodized aluminum mounting ring

Grounding kits included with each device

Stack contact blocks up to six deep by two wide on pushbutton operators. Contact capacity varies with operator.

Push-pull Illuminated

Mushroom

## 30mm Selector Switches

(in knob or lever versions)

## 30mm Indicating Lights

(in seven colors)

## 30mm Push-to-Test Indicators

** Cutler-Hammer products are available for sale to North America locations only.*

# HT800 30mm Pushbuttons Specifications

## Overview

The HT800 family of 30.5 mm pushbutton devices includes momentary, illuminated and mushroom-head pushbuttons, selector switches, indicating lights and push-pull switches.

***Features***

- Anodized aluminum mounting rings
- Watertight double V-gasket seals
- Extended height bulbs
- Transparent housing contact blocks
- Color-coded contact blocks
- Gold-plated contacts (on low voltage contact block)
- Reliability ridge on movable contact
- Stackable screw-mounted contact blocks
- Contact blocks can be mounted in left/right or top/bottom positions
- Standard N.C. contact opens before N.O. contact closes (break before make operation)
- Bright and long lasting LED indicating lights in six colors
- Field convertible maintained selector switches from two-position to three-position and vice versa
- Field selectable knob/lever mounting positions – at any 22.5° increment

***Benefits***

- Corrosion resistant NEMA 4X finish
- Watertight and oil-tight NEMA 4, 13 ingress protection
- Increased side illumination of indicating lights and illuminated pushbuttons
- Easy visual inspection of contact conditions
- Easily identifiable N.O. (white) or N.C. black) contact blocks
- Gold-plated contacts suitable for logic level circuits
- Reliability ridge penetrates contamination buildup on stationary contacts
- Left/right or top/bottom mounted contact blocks allow correct positioning in retrofit applications
- All-purpose selector switches are convertible and can rotate in 22.5° increments to suit panel layouts

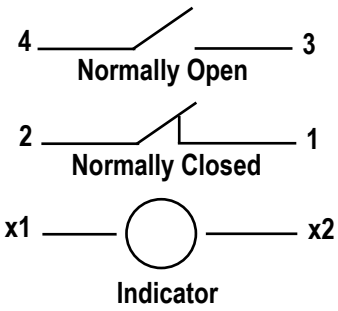
***Standards and Certifications***

- UL508, File No. E131568
- CSA C22.2 No. 14, File No. LR68551

***Ingress Protection***

- UL (NEMA) 1, 2, 3, 3R, 4, 4X, 12 and 13 when mounted in similarly rated enclosures

## Typical Wiring



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# HT800 30mm Pushbuttons Specifications

| HT800 — Specifications | |
|---|---|
| ***Mechanical Ratings*** | |
| ***Frequency of Operation*** | |
| ***Pushbuttons*** | 6,000 Operations per hour |
| ***Selector Switches*** | 3,000 Operations per hour |
| ***Push-Pull Operators*** | 3,000 Operations per hour |
| ***Mechanical Endurance/Life*** | |
| ***Pushbuttons*** | 10 x $10^6$ Operations 6K Ops/Hr with 6 N.O. on left and 6 N.C. on right |
| ***Selector Switches*** | 250 x $10^3$ Operations 3K Ops/Hr with 2 N.O. on left and 2 N.C. on right |
| ***Push-Pull Operators*** | 250 x $10^3$ Operations 3K Ops/Hr with 6 N.O. on left and 6 N.C. on right |
| ***Environmental Specifications*** | |
| ***Operating Temperature*** | 10 to 140°F (-12° to 60°C) |
| ***Storage Temperature*** | -40 to 176°F (-40° to 80°C) |
| ***Altitude*** | 6,562 ft. (2,000m) |
| ***Humidity*** | 95% RH @ 60°C |
| ***Terminals*** | |
| ***Contact Blocks*** | #6-32 posi-drive saddle clamp type, 1 x 16 AWG to 2 x 14 AWG, 12 in-lbs max. |
| ***Light Units*** | #6-32 posi-drive saddle clamp type, 1 x 22 AWG to 2 x 14 AWG, 7 in-lbs max. |

| HT800 Standard Contact Blocks UL (NEMA) Rating | | | | |
|---|---|---|---|---|
| ***Electrical Ratings Description/Function*** | ***Contact Type*** | ***Catalog Number*** | ***AC*** | ***DC*** |
| ***Standard Normally Open contact*** | N.O. | ***HT8A*** | A600 | P600 |
| ***Standard Normally Closed contact*** | N.C. | ***HT8B*** | A600 | P600 |
| ***Normally Open Early Make Contact will make circuit before standard N.O. contact. DC ratings do not apply.*** | N.O.E.M. | ***HT8C*** | A600 | — |
| ***Normally Closed Late Break contact will open after standard N.C. contact. DC ratings do not apply.*** | N.C.L.B. | ***HT8D*** | A600 | — |
| ***Logic level, low voltage N.O .contact. Gold plated contacts.*** | N.O. | ***HT8E*** | 5V 1mA (minimum) 28V 500mA (maximum) | |

| UL (NEMA) A600 and P600 Ratings | | | | | | | |
|---|---|---|---|---|---|---|---|
| ***Description*** | ***Volts AC 50/60 Hz*** | | | | ***Volts DC [1]*** | | |
| | ***120*** | ***240*** | ***480*** | ***600*** | ***125*** | ***250*** | ***600*** |
| ***Make and Emerg. Interrupting Capacity (Amp)*** | 60 | 30 | 15 | 12 | 1.1 | 0.55 | 0.2 |
| ***Normal Load Break (Amp)*** | 6 | 3 | 1.5 | 1.2 | 1.1 | 0.55 | 0.2 |
| ***Thermal Current (Amp)*** | 10 | 10 | 10 | 10 | 5 | 5 | 5 |
| ***Volt amperes*** | | | | | | | |
| ***Make and Emerg. Interrupting Capacity*** | 7200 | 7200 | 7200 | 7200 | 138[2] | 138[2] | 138[2] |
| ***Normal Load Break*** | 720 | 720 | 720 | 720 | 138 | 138 | 138 |

**Note: 1: DC ratings do not apply to N.O.E.M. (Normally Open Early Make) and N.C.L.B. (Normally Closed Late Break) contact blocks HT8C and HT8D.**
**2: Maximum make or break volt-amperes at 300V or less**

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# HT800 30mm Momentary Pushbuttons

Flush

HT8AAG

Extended

HT8ABR

Mushroom

HT8AEH

| HT800 30mm Momentary Pushbuttons | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Contact Type* | *Button Color* | *Flush Head Momentary* | | *Extended Head Momentary* | | *Mushroom Head Momentary* | |
| | | *Part Number* | *Price* | *Part Number* | *Price* | *Part Number* | *Price* |
| *Operator Only, No Contacts* | Black | *HT8AAH* | $29.50 | *HT8ABH* | $29.50 | *HT8AEH* | $61.00 |
| | Red | *HT8AAR* | $29.50 | *HT8ABR* | $29.50 | *HT8AER* | $61.00 |
| | Green | *HT8AAG* | $29.50 | *HT8ABG* | $29.50 | *HT8AEG* | $61.00 |
| *1 N.O.* | Black | *HT8AAHA* | $46.00 | **HT8ABHA* | $46.00 | **HT8AEHA* | $79.00 |
| | Red | **HT8AARA* | $46.00 | **HT8ABRA* | $46.00 | **HT8AERA* | $79.00 |
| | Green | **HT8AAGA* | $44.50 | **HT8ABGA* | $46.00 | **HT8AEGA* | $79.00 |
| *1 N.C.* | Black | **HT8AAHB* | $46.00 | **HT8ABHB* | $46.00 | **HT8AEHB* | $79.00 |
| | Red | **HT8AARB* | $46.00 | **HT8ABRB* | $46.00 | **HT8AERB* | $79.00 |
| | Green | **HT8AAGB* | $46.00 | **HT8ABGB* | $46.00 | **HT8AEGB* | $79.00 |
| *1 N.O. and 1 N.C.* | Black | **HT8AAHAB* | $61.00 | **HT8ABHAB* | $61.00 | **HT8AEHAB* | $96.00 |
| | Red | **HT8AARAB* | $61.00 | **HT8ABRAB* | $61.00 | **HT8AERAB* | $96.00 |
| | Green | **HT8AAGAB* | $61.00 | **HT8ABGAB* | $61.00 | **HT8AEGAB* | $96.00 |
| *2 N.O. and 2 N.C.* | Black | **HT8AAHF1Q1* | $96.00 | **HT8ABHF1Q1* | $96.00 | **HT8AEHF1Q1* | $125.00 |
| | Red | **HT8AARF1Q1* | $96.00 | **HT8ABRF1Q1* | $96.00 | **HT8AERF1Q1* | $125.00 |
| | Green | **HT8AAGF1Q1* | $96.00 | **HT8ABGF1Q1* | $96.00 | **HT8AEGF1Q1* | $125.00 |

**Notes: A grounding kit is included with each operator or switch assembly.**
**Part numbers with an * are kitted from individual components at AutomationDirect. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer.**

# HT800 30mm Momentary Pushbuttons

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## 30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)

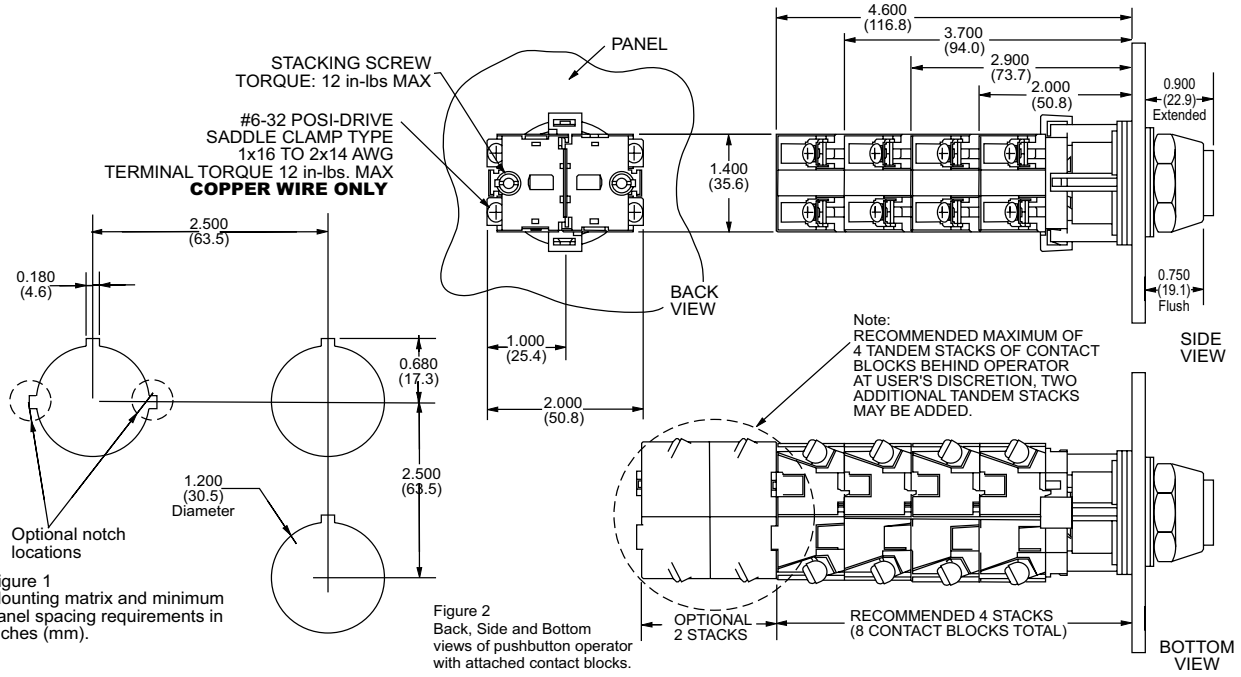


Figure 1
Mounting matrix and minimum panel spacing requirements in inches (mm).

Figure 2
Back, Side and Bottom views of pushbutton operator with attached contact blocks.

| GAGE THICKNESS | T PANEL THICKNESS INCHES (mm) | n NUMBER OF GASKETS |
|---|---|---|
| 14-16 | 0.060 - 0.075 (1.52-1.91) | 5 |
| 10-13 | 0.090 - 0.135 (2.27-3.43) | 4 |
| 7-9 | 0.150 - 0.179 (3.81-4.55) | 3 |
| 5-6 | 0.194 - 0.210 (4.93-5.33) | 2 |
| 2-4 | 0.224 - 0.315 (5.67-8.00) | 1 |

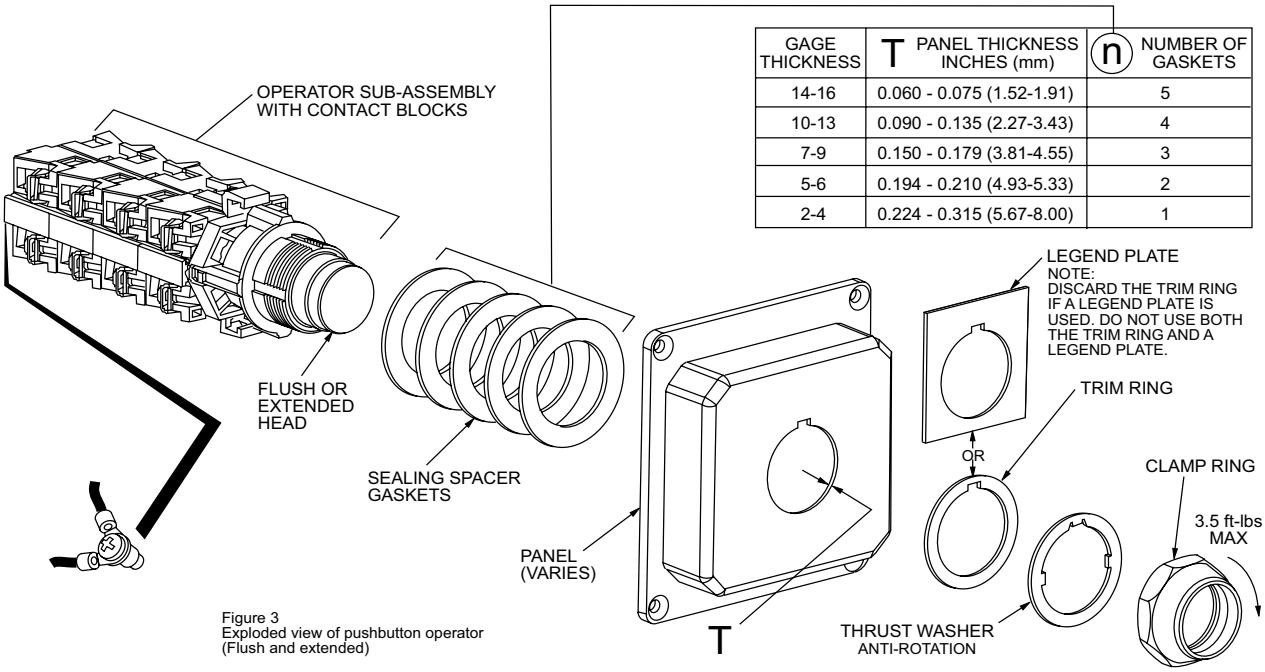


Figure 3
Exploded view of pushbutton operator (Flush and extended)

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# HT800 30mm Two-position Push-pull Button

HT8CBR

| Contact Configuration | Operator Position | | Two-position Maintained Push-Pull | | |
|---|---|---|---|---|---|
| | Out | In | Color | Part Number | Price |
| Operator Only | ---------- | | Red | HT8CBR | $96.00 |
| 1 N.C. | X | O | Red | *HT8CBRB | $112.00 |
| 1 N.O. and 1 N.C. | "O X" | " X O" | Red | *HT8CBRAB | $125.00 |

*Notes: A grounding kit is included with each operator or switch assembly.*
*Part numbers with an * are kitted from individual components at AutomationDirect. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer.*

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)

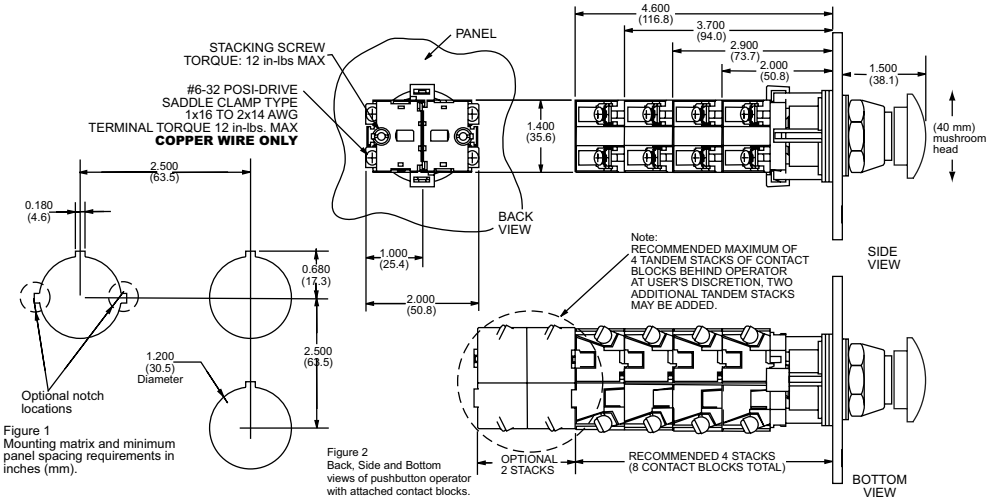
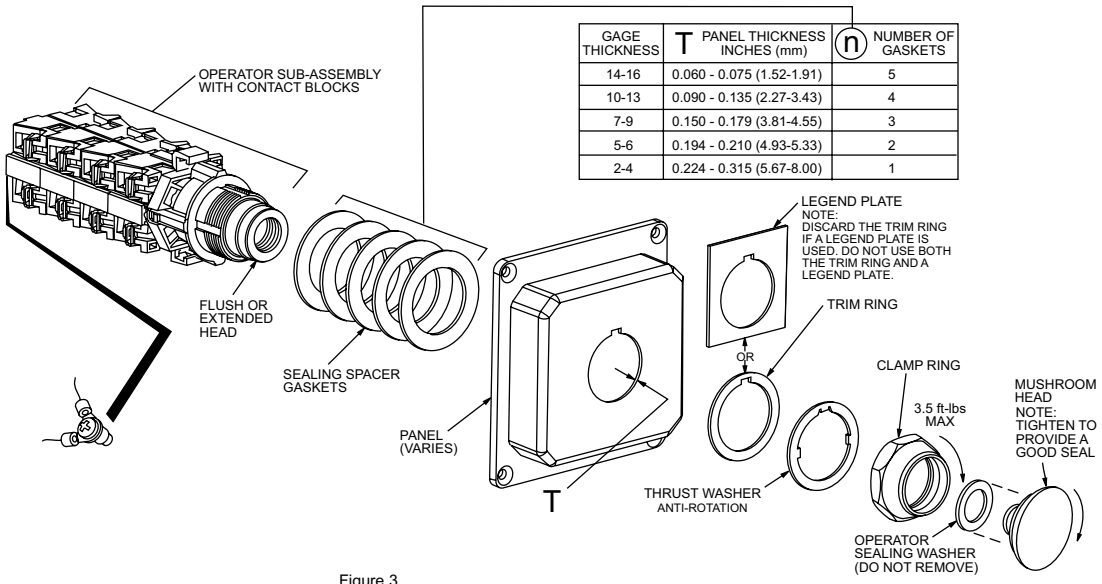



Figure 1
Mounting matrix and minimum panel spacing requirements in inches (mm).

Figure 2
Back, Side and Bottom views of pushbutton operator with attached contact blocks.




| GAGE THICKNESS | T PANEL THICKNESS INCHES (mm) | (n) NUMBER OF GASKETS |
|---|---|---|
| 14-16 | 0.060 - 0.075 (1.52-1.91) | 5 |
| 10-13 | 0.090 - 0.135 (2.27-3.43) | 4 |
| 7-9 | 0.150 - 0.179 (3.81-4.55) | 3 |
| 5-6 | 0.194 - 0.210 (4.93-5.33) | 2 |
| 2-4 | 0.224 - 0.315 (5.67-8.00) | 1 |

Figure 3
Exploded view of mushroom head operator

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# HT800 30mm Push-Pull Illuminated Pushbutton

| Contact Configuration | 24 Volt Incandescent full Voltage Lamp 50mA @ 24 Volts | Price | 120 Volt Incandescent Full Voltage Lamp 19mA @ 120 Volts | Price | 24 Volt LED full Voltage Lamp | Price | 120 Volt LED full Voltage Lamp | Price |
|---|---|---|---|---|---|---|---|---|
| **Red Lens** | | | | | | | | |
| Operator only | HT8FBRV3 | $166.00 | HT8FBRV7 | $166.00 | HT8FBRF3 | $182.00 | HT8FBRF7 | $182.00 |
| 1 N.O. | *HT8FBRAV3 | $159.00 | *HT8FBRAV7 | $159.00 | *HT8FBRAF3 | $175.00 | *HT8FBRAF7 | $175.00 |
| 1 N.C. | *HT8FBRBV3 | $159.00 | *HT8FBRBV7 | $159.00 | *HT8FBRBF3 | $175.00 | *HT8FBRBF7 | $175.00 |
| **Green Lens** | | | | | | | | |
| Operator only | HT8FBGV3 | $166.00 | HT8FBGV7 | $166.00 | HT8FBGF3 | $182.00 | HT8FBGF7 | $182.00 |
| 1 N.O. | *HT8FBGAV3 | $159.00 | *HT8FBGAV7 | $159.00 | *HT8FBGAF3 | $175.00 | *HT8FBGAF7 | $175.00 |
| 1 N.C. | *HT8FBGBV3 | $159.00 | *HT8FBGBV7 | $159.00 | *HT8FBGBF3 | $175.00 | *HT8FBGBF7 | $175.00 |

HT8FBRV3

HT8FBGF3

*Notes: A grounding kit is included with each operator or switch assembly.*
**Part numbers with an * are kitted from individual components at AutomationDirect. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer.*

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)

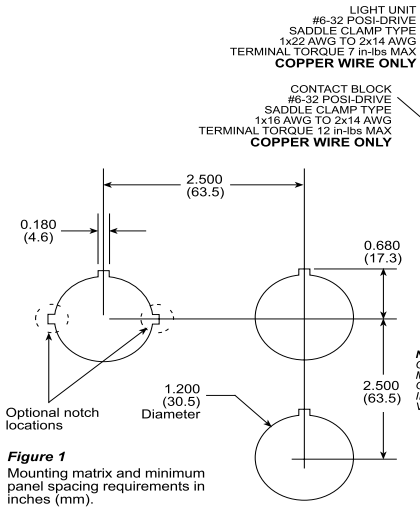



**Figure 1**
Mounting matrix and minimum panel spacing requirements in inches (mm).

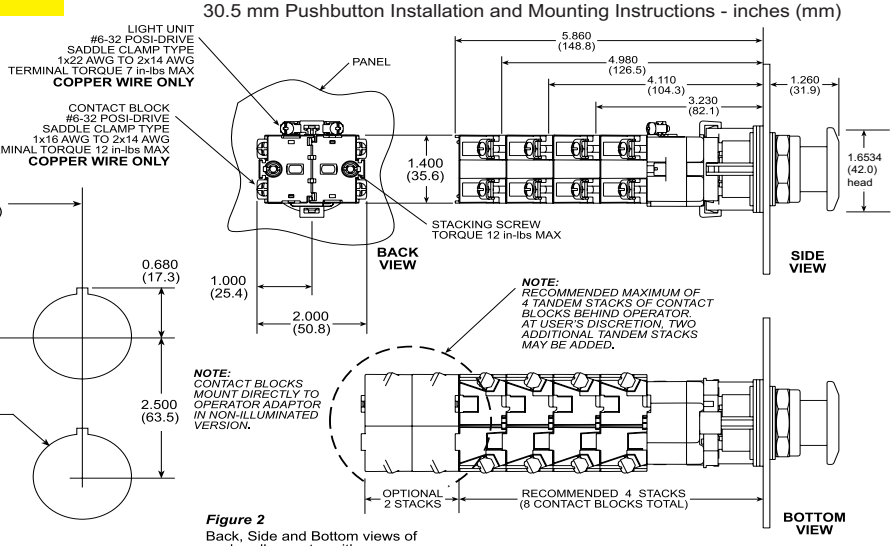
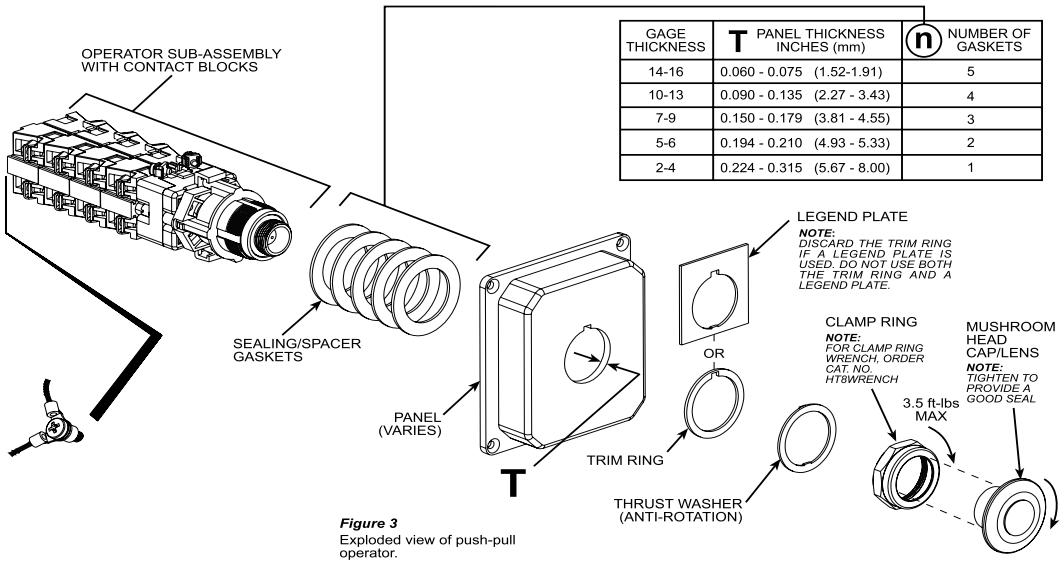



**Figure 2**
Back, Side and Bottom views of push-pull operator with attached contact blocks.




| GAGE THICKNESS | T PANEL THICKNESS INCHES (mm) | n NUMBER OF GASKETS |
|---|---|---|
| 14-16 | 0.060 - 0.075 (1.52-1.91) | 5 |
| 10-13 | 0.090 - 0.135 (2.27 - 3.43) | 4 |
| 7-9 | 0.150 - 0.179 (3.81 - 4.55) | 3 |
| 5-6 | 0.194 - 0.210 (4.93 - 5.33) | 2 |
| 2-4 | 0.224 - 0.315 (5.67 - 8.00) | 1 |

**Figure 3**
Exploded view of push-pull operator.

**NOTE:**
FOR EASY BULB REMOVAL FROM FRONT OF PANEL USE BULB REMOVAL TOOL CATNO. HT8LAMPTOOL.

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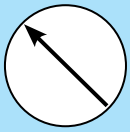
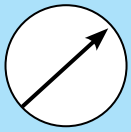
# HT800 30mm Selector Switches

HT8JAH3A knob version

## Two-position Selector Switches

| Contact Type | Operator Type M=Maintained S=Spring Return | Standard Black Knob Operator | | Standard Black Lever Operator | |
|---|---|---|---|---|---|
| | | Part Number | Price | Part Number | Price |
| No Contacts | M M | HT8JAH3A | $39.00 | HT8JDH3A | $39.00 |
| | M<S | HT8JNH3A | $62.00 | HT8JPH3A | $62.00 |
| 1 N.O. | M M | *HT8JAH3AA5 | $56.00 | *HT8JDH3AA5 | $56.00 |
| | M<S | *HT8JNH3AA5 | $79.00 | *HT8JPH3AA5 | $79.00 |

HT8JDH3A lever version

| Switch Part Numbers | Contact Blocks | | Cam Code 3A | |
|---|---|---|---|---|
| | | | Switch Position | |
| HT8JAH3A, HT8JNH3A, HT8JAH3AA5, HT8JNH3AA5, HT8JDH3A, HT8JPH3A, HT8JDH3AA5, HT8JPH3AA5 (Contact block configuration varies with part number) | Left | Right |  |  |
| Two-position Selector Switch | N.O. | ------ | X | 0 |
| | N.C. | ------ | 0 | X |
| | ------ | N.O. | 0 | X |
| | ------ | N.C. | X | 0 |
| Note: AutomationDirect only offers cam code 3A for two position selector switches. | | | X = On | O = Off |

Notes: A grounding kit is included with each operator or switch assembly.
Part numbers with an * are kitted from individual components at AutomationDirect. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer.

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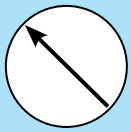
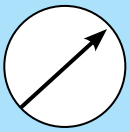
HT8JBH1D knob version

## Three-position Selector Switches

| Contact Type | Operator Type M=Maintained S=Spring Return | Standard Black Knob Operator | | Standard Black Lever Operator | |
|---|---|---|---|---|---|
| | | Part Number | Price | Part Number | Price |
| No Contacts | M M M | HT8JBH1D | $39.00 | HT8JEH1D | $39.00 |
| | M M < S | HT8JUH1D | $62.00 | HT8JVH1D | $62.00 |
| | S > M < S | HT8JXH1D | $62.00 | HT8JYH1D | $62.00 |
| 2 N.O. | M M M | HT8JBH1DAA5 | $73.00 | *HT8JEH1DAA5 | $73.00 |
| | M M < S | *HT8JUH1DAA5 | $96.00 | *HT8JVH1DAA5 | $96.00 |
| | S > M < S | *HT8JXH1DAA5 | $96.00 | *HT8JYH1DAA5 | $96.00 |

HT8JEH1D lever version

| Switch Part Numbers | Contact Blocks | | Cam Code 1D | | |
|---|---|---|---|---|---|
| | | | Switch Position | | |
| HT8JBH1D, HT8JUH1D, HT8JXH1D, HT8JBH1DAA5, HT8JUH1DAA5, HT8JXH1DAA5, HT8JEH1D, HT8JVH1D, HT8JYH1D, HT8JEH1DAA5, HT8JVH1DAA5, HT8JYH1DAA5 (Contact block configuration varies with part number) | Left | Right |  | |  |
| Three-position Selector Switch | N.O. | ------ | X | 0 | 0 |
| | N.C. | ------ | 0 | X | X |
| | ------ | N.O. | 0 | 0 | X |
| | ------ | N.C. | X | X | 0 |
| | *N.O.---------- | ----------N.O. | X | 0 | X |
| | **N.C.---------- | ----------N.C. | 0 | X | 0 |
| * Indicates contact blocks wired in parallel<br>** Indicates contact blocks wired in series | | | X = On | O = Off | |

Note: AutomationDirect only offers cam code 1D for three-position selector switches.
Note: For additional contact blocks, see HT800 accessories in this section.

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# HT800 30mm Three-position Selector Switches

30.5 mm Selector Switch Installation and Mounting Instructions - inches (mm)

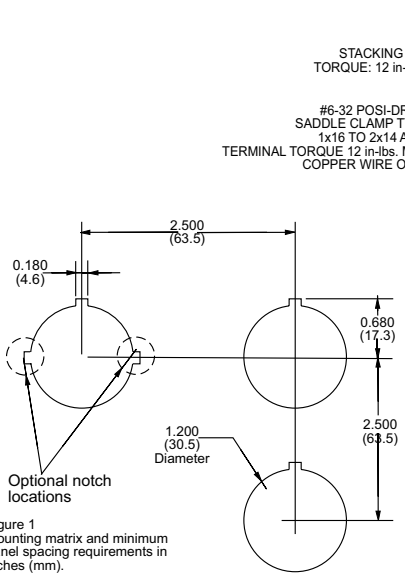



Figure 1
Mounting matrix and minimum panel spacing requirements in inches (mm).

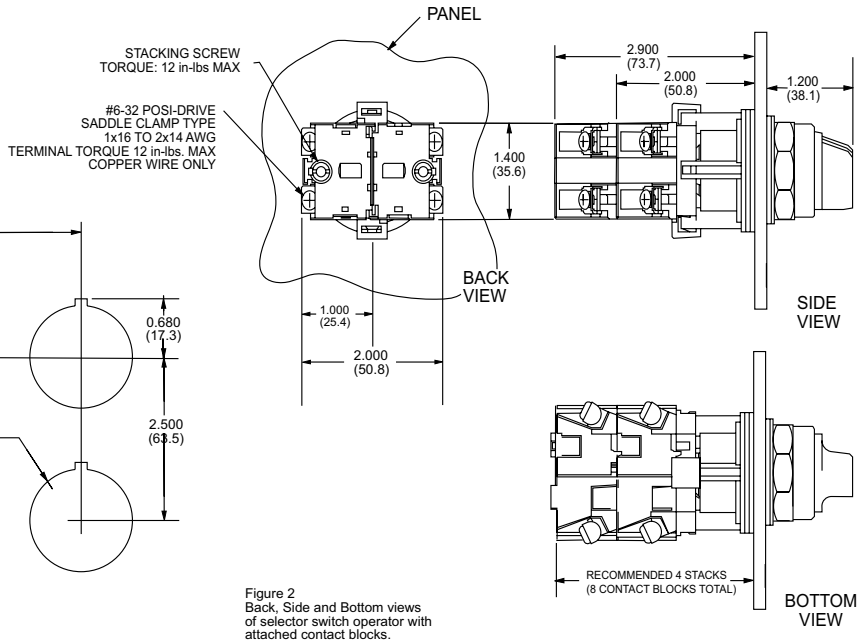
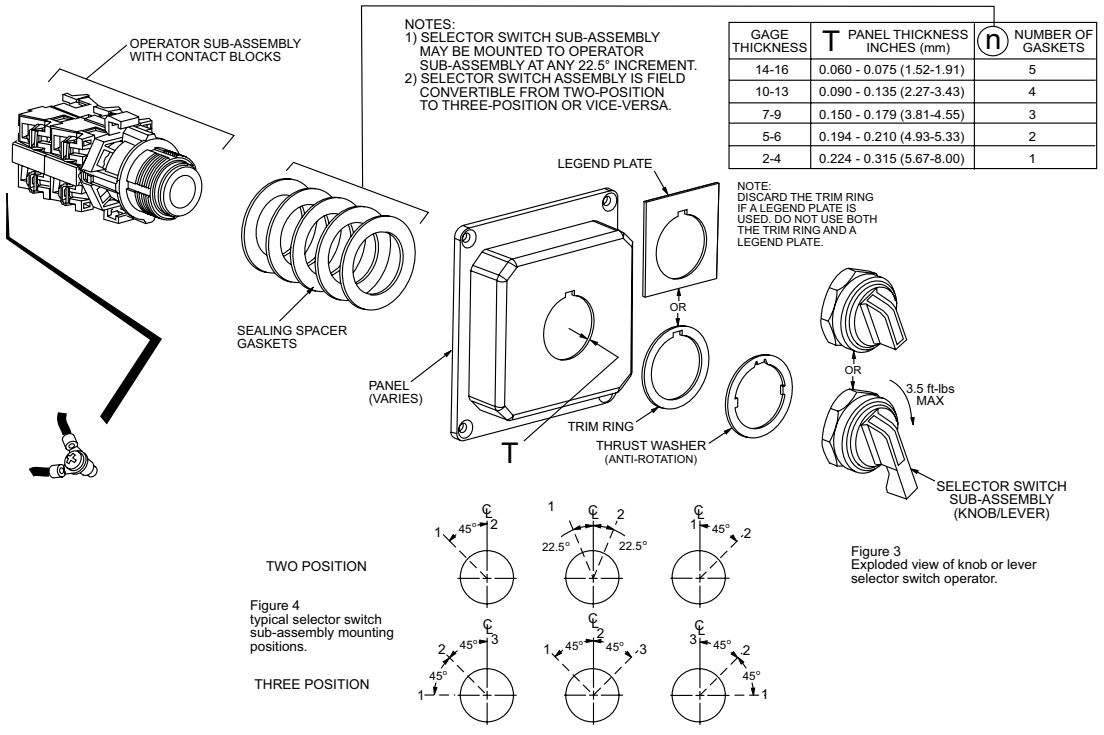



Figure 2
Back, Side and Bottom views of selector switch operator with attached contact blocks.




| GAGE THICKNESS | T PANEL THICKNESS INCHES (mm) | (n) NUMBER OF GASKETS |
|---|---|---|
| 14-16 | 0.060 - 0.075 (1.52-1.91) | 5 |
| 10-13 | 0.090 - 0.135 (2.27-3.43) | 4 |
| 7-9 | 0.150 - 0.179 (3.81-4.55) | 3 |
| 5-6 | 0.194 - 0.210 (4.93-5.33) | 2 |
| 2-4 | 0.224 - 0.315 (5.67-8.00) | 1 |

Figure 3
Exploded view of knob or lever selector switch operator.




Figure 4
typical selector switch sub-assembly mounting positions.

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# HT800 30mm Extended Illuminated Pushbuttons

HT8GBRV7

HT8GBGV7

HT8GBAV7

HT8GBCV7

| HT800 30mm Extended Illuminated Pushbuttons | | | | |
|---|---|---|---|---|
| *Contact Configuration* | *24 Volt Incandescent full Voltage Lamp 50mA @ 24 Volts* | *Price* | *120 Volt Incandescent Full Voltage Lamp 19mA @ 120 Volts* | *Price* |
| ***Red Lens*** | | | | |
| *Operator only* | *HT8GBRV3* | $96.00 | *HT8GBRV7* | $96.00 |
| *1 N.O.* | **HT8GBRAV3* | $112.00 | **HT8GBRAV7* | $112.00 |
| *1 N.C.* | **HT8GBRBV3* | $112.00 | **HT8GBRBV7* | $112.00 |
| ***Green Lens*** | | | | |
| *Operator only* | *HT8GBGV3* | $96.00 | *HT8GBGV7* | $96.00 |
| *1 N.O.* | **HT8GBGAV3* | $112.00 | **HT8GBGAV7* | $112.00 |
| *1 N.C.* | **HT8GBGBV3* | $112.00 | **HT8GBGBV7* | $112.00 |
| ***Amber Lens*** | | | | |
| *Operator only* | *HT8GBAV3* | $96.00 | *HT8GBAV7* | $96.00 |
| *1 N.O.* | **HT8GBAAV3* | $112.00 | **HT8GBAAV7* | $112.00 |
| *1 N.C.* | **HT8GBABV3* | $112.00 | **HT8GBABV7* | $112.00 |
| ***Clear Lens*** | | | | |
| *Operator only* | *HT8GBCV3* | $96.00 | *HT8GBCV7* | $96.00 |
| *1 N.O.* | **HT8GBCAV3* | $112.00 | **HT8GBCAV7* | $112.00 |
| *1 N.C.* | **HT8GBCBV3* | $112.00 | **HT8GBCBV7* | $112.00 |
| ***White Lens*** | | | | |
| *Operator only* | *HT8GBWV3* | $96.00 | *HT8GBWV7* | $96.00 |
| *1 N.O.* | **HT8GBWAV3* | $112.00 | **HT8GBWAV7* | $112.00 |
| *1 N.C.* | **HT8GBWBV3* | $112.00 | **HT8GBWBV7* | $112.00 |
| ***Yellow Lens*** | | | | |
| *Operator only* | *HT8GBYV3* | $96.00 | *HT8GBYV7* | $96.00 |
| *1 N.O.* | **HT8GBYAV3* | $112.00 | **HT8GBYAV7* | $112.00 |
| *1 N.C.* | **HT8GBYBV3* | $112.00 | **HT8GBYBV7* | $112.00 |
| ***Blue Lens*** | | | | |
| *Operator only* | *HT8GBBV3* | $96.00 | *HT8GBBV7* | $96.00 |
| *1 N.O.* | **HT8GBBAV3* | $112.00 | **HT8GBBAV7* | $112.00 |
| *1 N.C.* | **HT8GBBBV3* | $112.00 | **HT8GBBBV7* | $112.00 |
| *Spare Incandescent Lamps For HT8 Series* | | | | |
| *Spare lamp* | *HT8BULBV3* | $14.00 | *HT8BULBV7* | $14.00 |

See HT800 accessories in this section.

Notes: A grounding kit is included with each operator or switch assembly.
Part numbers with an * are kitted from individual components at AutomationDirect. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer. Lens not sold separately.

HT8GBWV7

HT8GBYV7

HT8GBBBV7

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# HT800 30mm Extended Illuminated Pushbuttons

## 30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)

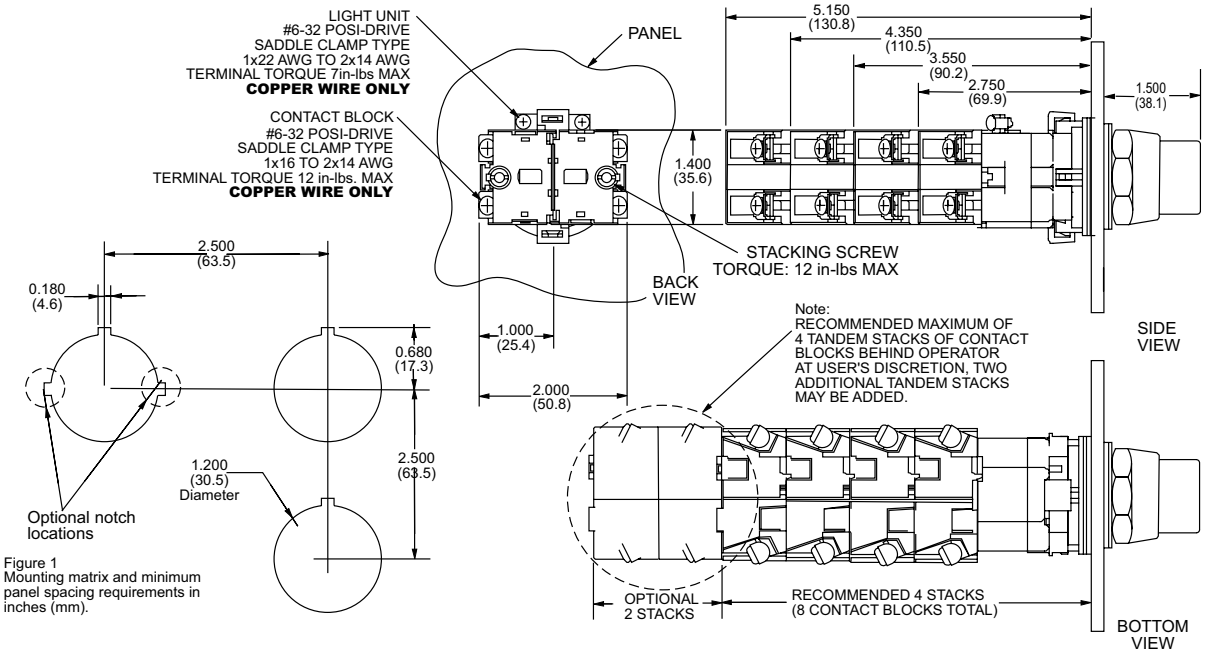
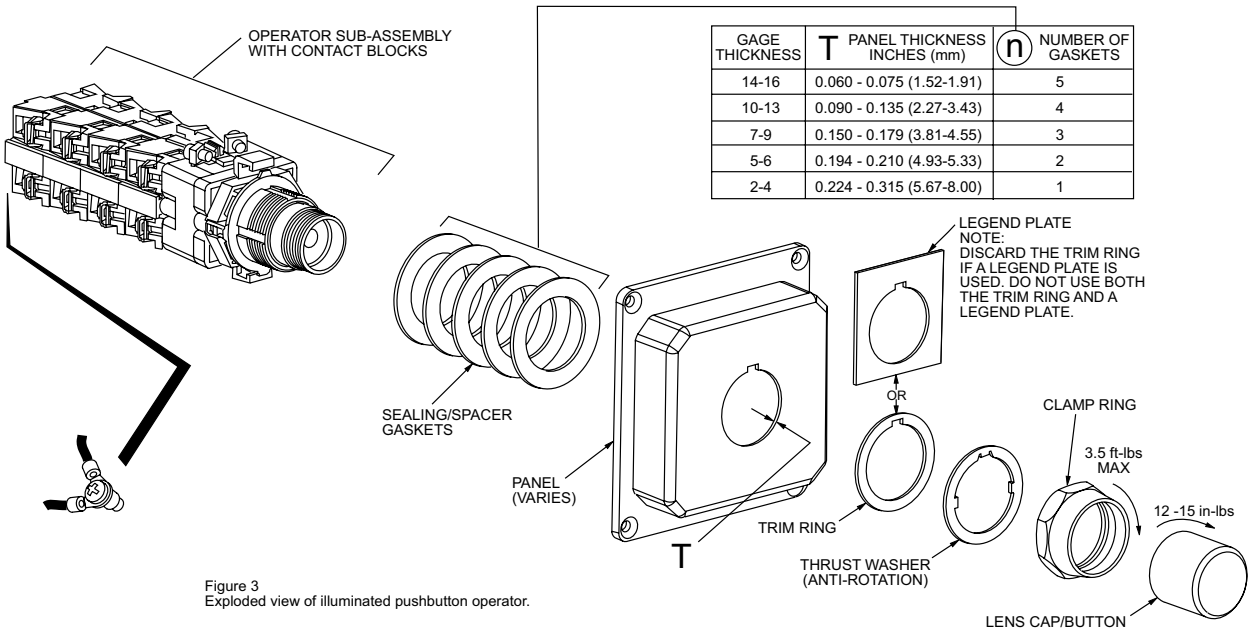



Figure 1
Mounting matrix and minimum panel spacing requirements in inches (mm).

Figure 2
Back, Side and Bottom views of pushbutton operator with attached contact blocks.




| GAGE THICKNESS | T PANEL THICKNESS INCHES (mm) | n NUMBER OF GASKETS |
|---|---|---|
| 14-16 | 0.060 - 0.075 (1.52-1.91) | 5 |
| 10-13 | 0.090 - 0.135 (2.27-3.43) | 4 |
| 7-9 | 0.150 - 0.179 (3.81-4.55) | 3 |
| 5-6 | 0.194 - 0.210 (4.93-5.33) | 2 |
| 2-4 | 0.224 - 0.315 (5.67-8.00) | 1 |

Figure 3
Exploded view of illuminated pushbutton operator.

Cutler-Hammer

# HT800 30mm Push-to-Test Indicators

HT8GVRV7

HT8GVGV7

HT8GVAV7

| HT800 30mm Push-to-Test Indicators | | | | |
|---|---|---|---|---|
| *Push-To-Test Indicator* | *24 Volt AC/DC Incandescent Full Voltage Lamp 50mA @ 24 Volts* | *Price* | *120 Volt AC/ DC Incandescent Full Voltage Lamp 19mA @ 120 Volts* | *Price* |
| *Red Lens* | | | | |
| *PTT indicator assembly* | *HT8GVRV3* | $125.00 | *HT8GVRV7* | $125.00 |
| *Green Lens* | | | | |
| *PTT indicator assembly* | *HT8GVGV3* | $125.00 | *HT8GVGV7* | $125.00 |
| *Amber Lens* | | | | |
| *PTT indicator assembly* | *HT8GVAV3* | $125.00 | *HT8GVAV7* | $125.00 |
| *Clear Lens* | | | | |
| *PTT indicator assembly* | — | — | *HT8GVCV7* | $125.00 |
| *White Lens* | | | | |
| *PTT indicator assembly* | *HT8GVWV3* | $125.00 | *HT8GVWV7* | $125.00 |
| *Yellow Lens* | | | | |
| *PTT indicator assembly* | *HT8GVYV3* | $125.00 | *HT8GVYV7* | $125.00 |
| *Blue Lens* | | | | |
| *PTT indicator assembly* | *HT8GVBV3* | $125.00 | *HT8GVBV7* | $125.00 |
| *Spare Incandescent Lamps For HT8 Series* | | | | |
| *Spare lamp* | *HT8BULBV3* | $14.00 | *HT8BULBV7* | $14.00 |

See HT800 accessories in this section.
Notes: A grounding kit is included with each operator or switch assembly.
Part numbers with an * are kitted from individual components at AutomationDirect. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer. Lens not sold separately.

HT8GVCV7

HT8GVWV7

HT8GVYV7

HT8GVBV7

## 30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)

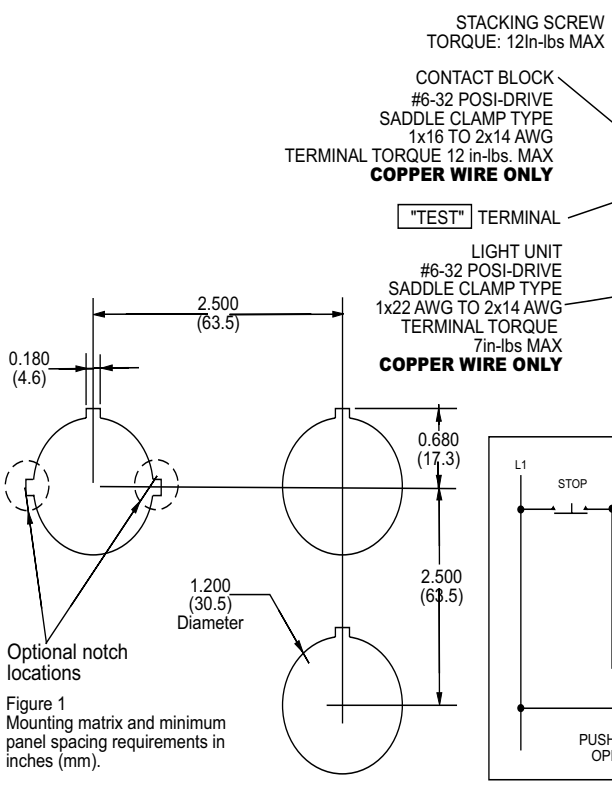
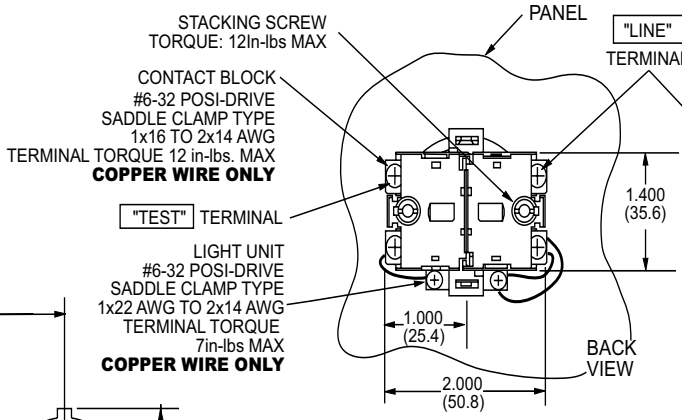



Figure 1
Mounting matrix and minimum panel spacing requirements in inches (mm).



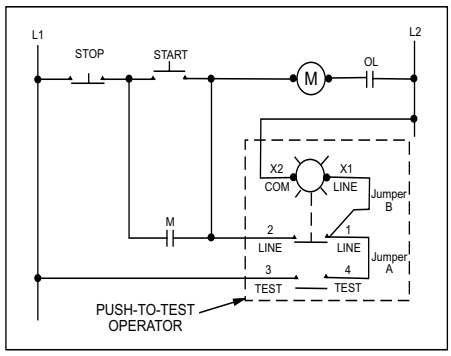




Figure 3 Typical Connection Diagram

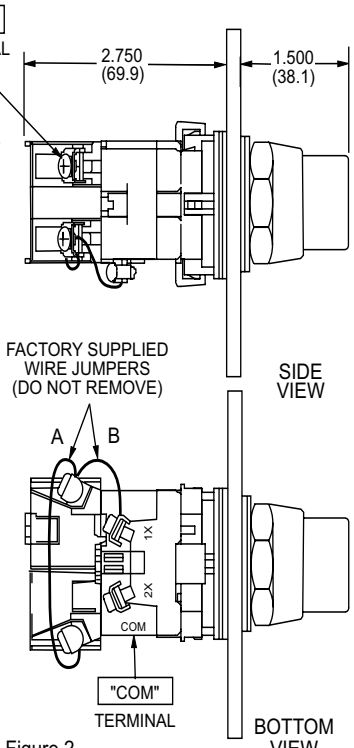
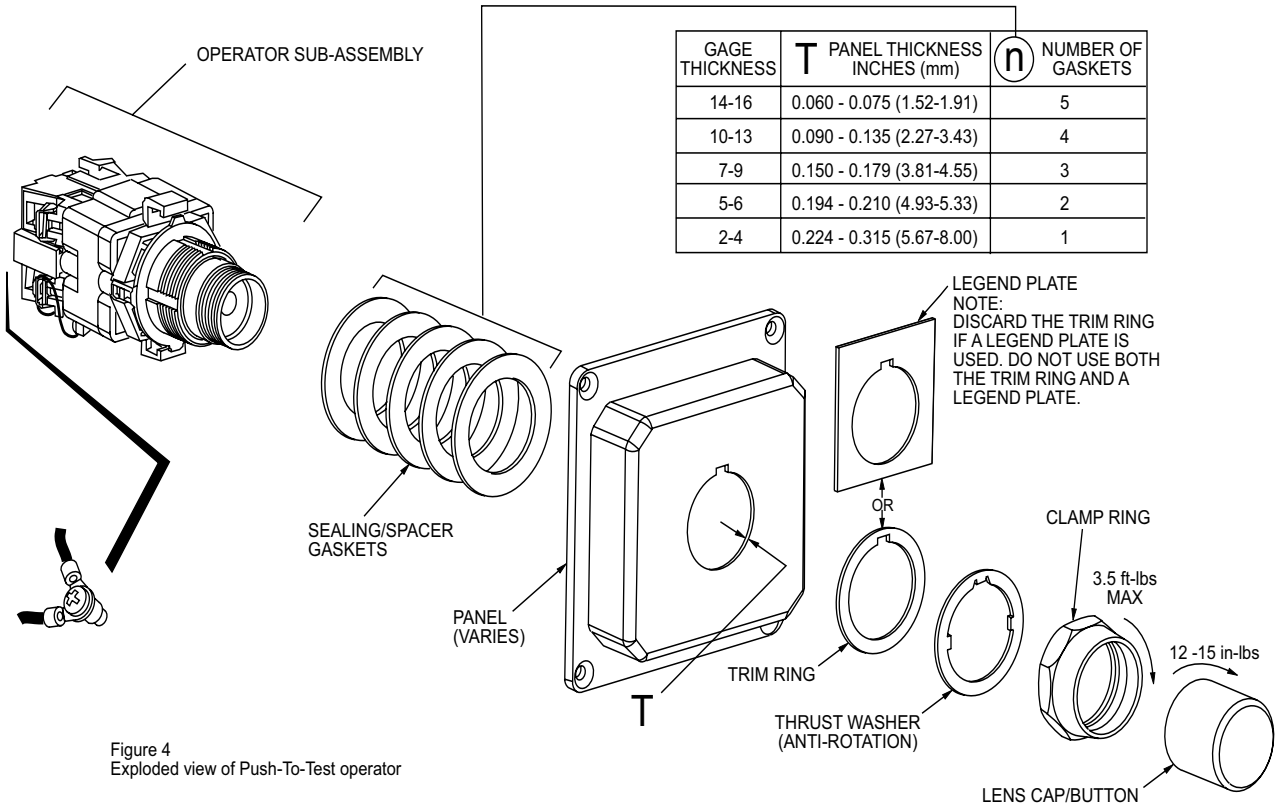



Figure 2
Back, Side and Bottom views of Push-To-Test operator




| GAGE THICKNESS | T PANEL THICKNESS INCHES (mm) | n NUMBER OF GASKETS |
|---|---|---|
| 14-16 | 0.060 - 0.075 (1.52-1.91) | 5 |
| 10-13 | 0.090 - 0.135 (2.27-3.43) | 4 |
| 7-9 | 0.150 - 0.179 (3.81-4.55) | 3 |
| 5-6 | 0.194 - 0.210 (4.93-5.33) | 2 |
| 2-4 | 0.224 - 0.315 (5.67-8.00) | 1 |

Figure 4
Exploded view of Push-To-Test operator

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# HT800 30mm Incandescent Indicators

HT8HFRV7

HT8HFGV7

HT8HFAV7

| HT800 30mm Incandescent Indicators | | | | |
|---|---|---|---|---|
| *Incandescent Indicator* | *24 Volt Incandescent Full Voltage Lamp 50mA @ 24 Volts* | *Price* | *120 Volt Incandescent Full Voltage Lamp 19mA @ 120 Volts* | *Price* |
| *Red Lens* | | | | |
| *Indicator assembly* | *HT8HFRV3* | $96.00 | *HT8HFRV7* | $96.00 |
| *Green Lens* | | | | |
| *Indicator assembly* | *HT8HFGV3* | $96.00 | *HT8HFGV7* | $96.00 |
| *Amber Lens* | | | | |
| *Indicator assembly* | *HT8HFAV3* | $96.00 | *HT8HFAV7* | $96.00 |
| *Clear Lens* | | | | |
| *Indicator assembly* | *HT8HFCV3* | $96.00 | *HT8HFCV7* | $96.00 |
| *White Lens* | | | | |
| *Indicator assembly* | *HT8HFWV3* | $96.00 | *HT8HFWV7* | $96.00 |
| *Yellow Lens* | | | | |
| *Indicator assembly* | *HT8HFYV3* | $96.00 | *HT8HFYV7* | $96.00 |
| *Blue Lens* | | | | |
| *Indicator assembly* | *HT8HFBV3* | $96.00 | *HT8HFBV7* | $96.00 |
| *Spare Incandescent Lamps For HT8 Series* | | | | |
| *Spare lamp* | *HT8BULBV3* | $14.00 | *HT8BULBV7* | $14.00 |

See HT800 accessories in this section.
Notes: A grounding kit is included with each operator or switch assembly.
Part numbers with an * are kitted from individual components at AutomationDirect. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer. Lens not sold separately.

HT8HFCV7

HT8HFWV7

HT8HFYV7

HT8HFBV7

# HT800 30mm Incandescent Indicators

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## 30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)

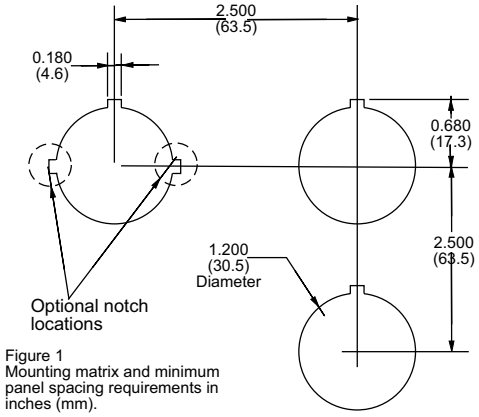


Figure 1
Mounting matrix and minimum panel spacing requirements in inches (mm).

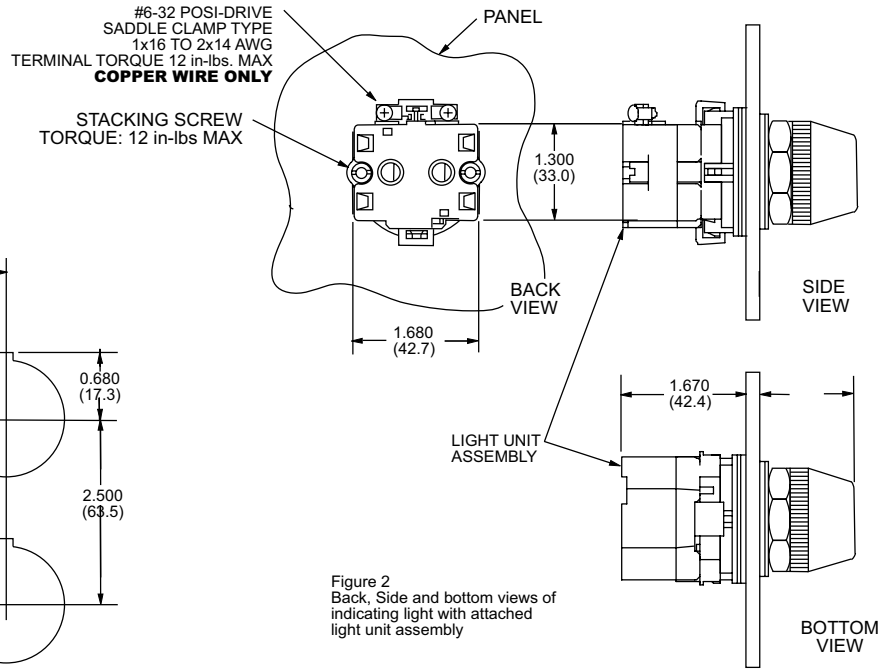


Figure 2
Back, Side and bottom views of indicating light with attached light unit assembly

| GAGE THICKNESS | T PANEL THICKNESS INCHES (mm) | n NUMBER OF GASKETS |
|---|---|---|
| 14-16 | 0.060 - 0.075 (1.52-1.91) | 5 |
| 10-13 | 0.090 - 0.135 (2.27-3.43) | 4 |
| 7-9 | 0.150 - 0.179 (3.81-4.55) | 3 |
| 5-6 | 0.194 - 0.210 (4.93-5.33) | 2 |
| 2-4 | 0.224 - 0.315 (5.67-8.00) | 1 |

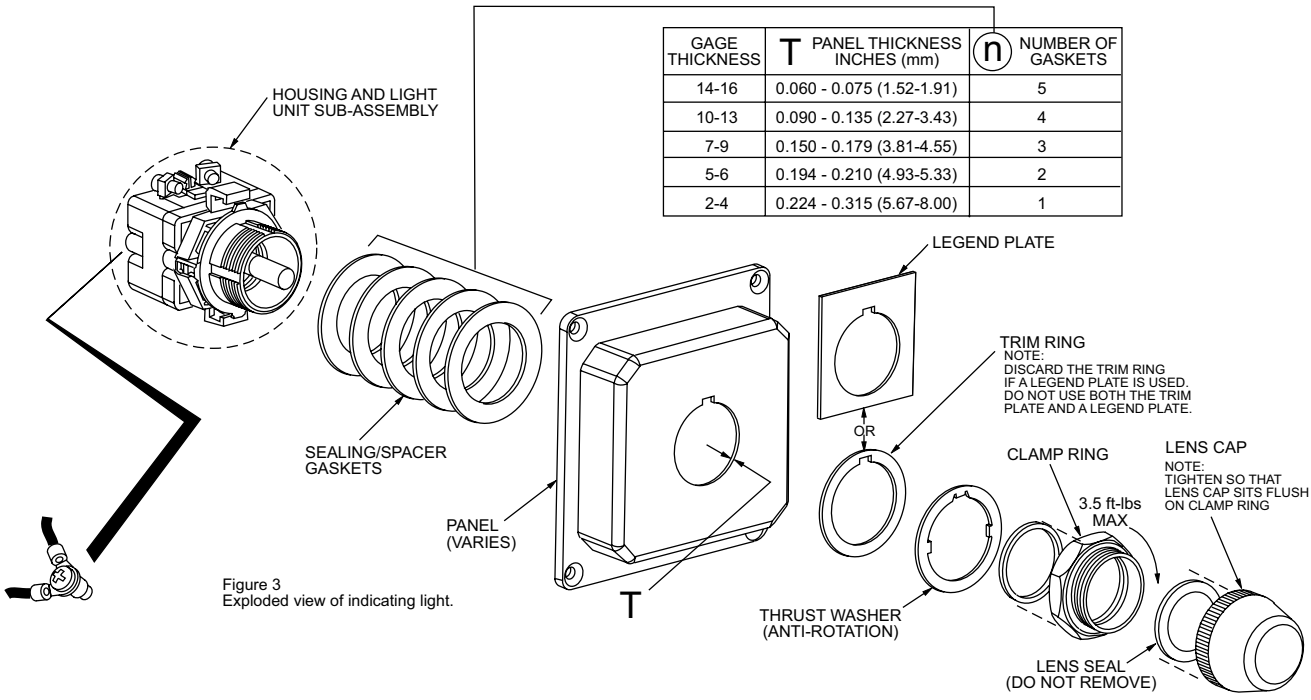


Figure 3
Exploded view of indicating light.

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# HT800 30mm Guarded Flush Pushbuttons

HT8GDRV3

HT8GDGV3

HT8GDAV3

HT8GDCV3

HT8GDWV3

HT8GDYV3

HT8GDBV3

| HT800 30mm Guarded Flush Pushbuttons | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Contact Configuration* | *24 Volt AC/DC Incandescent Full Voltage Lamp 50mA @ 24 Volts* | *Price* | *120 Volt AC/DC Incandescent Full Voltage Lamp 19mA @ 120 Volts* | *Price* | *24 Volt LED Full Voltage Lamp* | *Price* | *120 Volt LED Full Voltage Lamp* | *Price* |
| ***Red Lens*** | | | | | | | | |
| *Operator only* | HT8GDRV3 | $105.00 | HT8GDRV7 | $105.00 | HT8GDRF3 | $123.00 | HT8GDRF7 | $123.00 |
| *1 N.O.* | *HT8GDRAV3 | $112.00 | *HT8GDRAV7 | $112.00 | *HT8GDRAF3 | $133.00 | *HT8GDRAF7 | $133.00 |
| *1 N.C.* | *HT8GDRBV3 | $112.00 | *HT8GDRBV7 | $112.00 | *HT8GDRBF3 | $133.00 | *HT8GDRBF7 | $133.00 |
| ***Green Lens*** | | | | | | | | |
| *Operator only* | HT8GDGV3 | $105.00 | HT8GDGV7 | $105.00 | HT8GDGF3 | $123.00 | HT8GDGF7 | $123.00 |
| *1 N.O.* | *HT8GDGAV3 | $112.00 | *HT8GDGAV7 | $112.00 | *HT8GDGAF3 | $133.00 | *HT8GDGAF7 | $133.00 |
| *1 N.C.* | *HT8GDGBV3 | $112.00 | *HT8GDGBV7 | $112.00 | *HT8GDGBF3 | $133.00 | *HT8GDGBF7 | $133.00 |
| ***Amber Lens*** | | | | | | | | |
| *Operator only* | HT8GDAV3 | $105.00 | HT8GDAV7 | $105.00 | HT8GDAF3 | $123.00 | HT8GDAF7 | $123.00 |
| *1 N.O.* | *HT8GDAAV3 | $112.00 | *HT8GDAAV7 | $112.00 | *HT8GDAAF3 | $133.00 | *HT8GDAAF7 | $133.00 |
| *1 N.C.* | *HT8GDABV3 | $112.00 | *HT8GDABV7 | $112.00 | *HT8GDABF3 | $133.00 | *HT8GDABF7 | $133.00 |
| ***Clear Lens*** | | | | | | | | |
| *Operator only* | HT8GDCV3 | $105.00 | HT8GDCV7 | $105.00 | HT8GDCF3 | $123.00 | HT8GDCF7 | $123.00 |
| *1 N.O.* | *HT8GDCAV3 | $112.00 | *HT8GDCAV7 | $112.00 | *HT8GDCAF3 | $133.00 | *HT8GDCAF7 | $133.00 |
| *1 N.C.* | *HT8GDCBV3 | $112.00 | *HT8GDCBV7 | $112.00 | *HT8GDCBF3 | $133.00 | *HT8GDCBF7 | $133.00 |
| ***White Lens*** | | | | | | | | |
| *Operator only* | HT8GDWV3 | $105.00 | HT8GDWV7 | $105.00 | HT8GDWF3 | $123.00 | HT8GDWF7 | $123.00 |
| *1 N.O.* | *HT8GDWAV3 | $112.00 | *HT8GDWAV7 | $112.00 | *HT8GDWAF3 | $133.00 | *HT8GDWAF7 | $133.00 |
| *1 N.C.* | *HT8GDWBV3 | $112.00 | *HT8GDWBV7 | $112.00 | *HT8GDWBF3 | $133.00 | *HT8GDWBF7 | $133.00 |
| ***Yellow Lens*** | | | | | | | | |
| *Operator only* | HT8GDYV3 | $105.00 | HT8GDYV7 | $105.00 | HT8GDYF3 | $123.00 | HT8GDYF7 | $123.00 |
| *1 N.O.* | *HT8GDYAV3 | $112.00 | *HT8GDYAV7 | $112.00 | *HT8GDYAF3 | $133.00 | *HT8GDYAF7 | $133.00 |
| *1 N.C.* | *HT8GDYBV3 | $112.00 | *HT8GDYBV7 | $112.00 | *HT8GDYBF3 | $133.00 | *HT8GDYBF7 | $133.00 |
| ***Blue Lens*** | | | | | | | | |
| *Operator only* | HT8GDBV3 | $105.00 | HT8GDBV7 | $105.00 | HT8GDBF3 | $123.00 | HT8GDBF7 | $123.00 |
| *1 N.O.* | *HT8GDBAV3 | $112.00 | *HT8GDBAV7 | $112.00 | *HT8GDBAF3 | $133.00 | *HT8GDBAF7 | $133.00 |
| *1 N.C.* | *HT8GDBBV3 | $112.00 | *HT8GDBBV7 | $112.00 | *HT8GDBBF3 | $133.00 | *HT8GDBBF7 | $133.00 |
| ***Spare Incandescent and LED Lamps For HT8 Series - starting Prices*** | | | | | | | | |
| | HT8BULBV3 | $14.00 | HT8BULBV7 | $14.00 | HT8LED**F3 | $39.00 | HT8LED**F7 | $39.00 |
| ***30mm Guard for Illuminated Pushbuttons*** | | | | | | | | |
| HT8A15 | | | | | | | | $16.50 |

See HT800 accessories in this section.
Notes: A grounding kit is included with each operator or switch assembly.
* Part numbers with an * are kitted from individual components at AutomationDirect. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer. Lens not sold separately.
**Insert letter of color bulb needed; for example, HT8LEDYF3 is the part number for a yellow 24 volt LED replacement bulb. See the accessories page at the end of this section for the complete listing of LED replacement bulbs.

# HT800 30mm Guarded Flush Pushbuttons

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)




Figure 1
Mounting matrix and minimum panel spacing requirements in inches (mm).

Pub. No. 49891
REV B ECR PB#10193

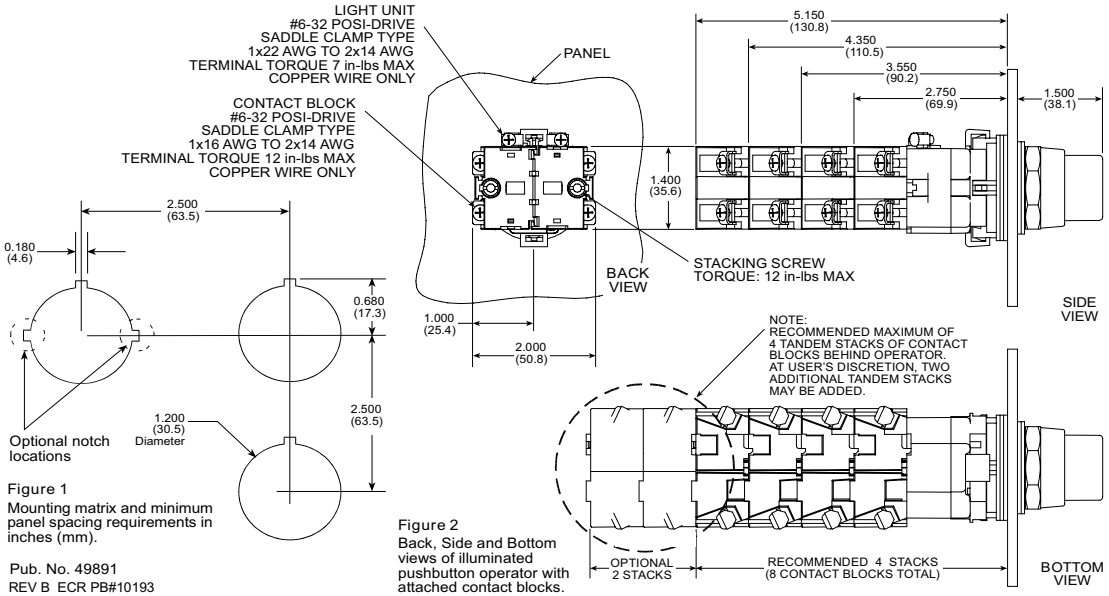
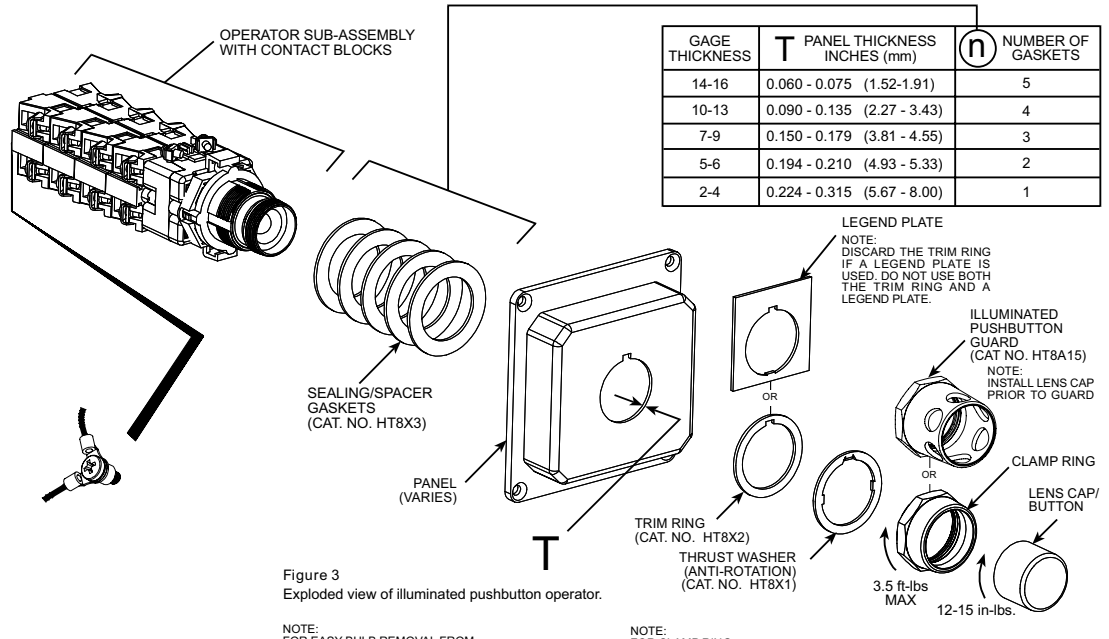


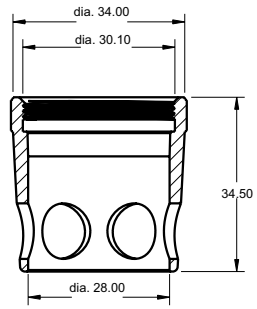

Figure 2
Back, Side and Bottom views of illuminated pushbutton operator with attached contact blocks.

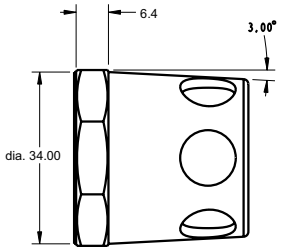



| GAGE THICKNESS | T PANEL THICKNESS INCHES (mm) | (n) NUMBER OF GASKETS |
|---|---|---|
| 14-16 | 0.060 - 0.075 (1.52-1.91) | 5 |
| 10-13 | 0.090 - 0.135 (2.27 - 3.43) | 4 |
| 7-9 | 0.150 - 0.179 (3.81 - 4.55) | 3 |
| 5-6 | 0.194 - 0.210 (4.93 - 5.33) | 2 |
| 2-4 | 0.224 - 0.315 (5.67 - 8.00) | 1 |

Figure 3
Exploded view of illuminated pushbutton operator.

## Guard dimensions




*Dimensions in millimeters*

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# HT800 30mm Contact Blocks & Accessories

## Contact blocks

HT8A

HT8B

| HT8 Series Contact Blocks | | |
|---|---|---|
| ***Part Number*** | ***Description*** | ***Price*** |
| ***HT8A*** | Normally open contact block for HT8 series switches. NEMA Rated A600, P6001 | $16.50 |
| ***HT8B*** | Normally closed contact block for HT8 series switches. NEMA Rated A600, P6001 | $16.50 |
| ***HT8C*** | Early closing normally open contact block for HT8 series switches. NEMA Rated A6001 | $40.00 |
| ***HT8D*** | Late opening normally closed contact block for HT8 series switches. NEMA Rated A6001 | $16.50 |
| ***HT8E*** | Logic level normally open contact block for HT8 series switches. Gold plated contacts for reliable low energy switching. Power Rating: Min 1mA @ 5V; Max 500mA 28V. | $33.00 |

**Notes**
1. **See HT800 specifications in this section for typical contact wiring diagram.**
2. **NEMA ICS 5-2000. For more information, refer to HT800 technical specifications and control circuit contact electrical ratings at the beginning of this section.**

## Spare parts and tools

HT8WRENCH

HT8LAMPTOOL

109305

HT8BULBV3

HT8LEDYF3

| HT8 Series Spare Parts and Tools | | |
|---|---|---|
| ***Part Number*** | ***Description*** | ***Price*** |
| ***HT8WRENCH*** | Installation wrench for Cutler-Hammer HT8 series and E22 series pushbuttons, switches, and indicators | $19.00 |
| ***HT8LAMPTOOL*** | Bulb extraction tool for removing bulbs from switches, indicators and stacklights | $10.00 |
| ***109305*** | Knockout punch hole cutting tool for 30.5 mm mounting hole. Includes punch, die and draw stud | $34.50 |
| ***HT8X1*** | Spare anti-rotation ring for HT8 series. Included with each HT8 device. (not shown) | $3.25 |
| ***HT8X2*** | Spare trim ring for HT8 series. Included with each HT8 device. (not shown) | $3.25 |
| ***HT8X3*** | Spare sealing/spacing ring for HT8 series. Included with each HT8 device. (not shown) | $3.25 |
| ***HT8GR1*** | Spare grounding kit for HT8 series devices except non-PTT indicators. Included with each HT8 device. (not shown) | $3.25 |
| ***HT8GR2*** | Spare grounding kit for HT8 series non-PTT indicators. Included with each HT8 device. (not shown) | $3.25 |
| ***HT8BULBV3*** | 24 volt incandescent bulb for HT8 illuminated devices. This is an extended bulb for enhanced illumination with HT8 devices. 50mA at 24 volts. | $14.00 |
| ***HT8BULBV7*** | 120 volt incandescent bulb for HT8 illuminated devices. This is an extended bulb for enhanced illumination with HT8 devices. 19mA at 120 volts. | $14.00 |
| ***HT8LEDRF3*** | 24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Red | $38.50 |
| ***HT8LEDYF3*** | 24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Yellow | $38.50 |
| ***HT8LEDGF3*** | 24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Green | $40.00 |
| ***HT8LEDBF3*** | 24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Blue | $44.00 |
| ***HT8LEDWF3*** | 24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: White | $48.50 |
| ***HT8LEDAF3*** | 24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Amber | $39.00 |
| ***HT8LEDRF7*** | 120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Red | $38.50 |
| ***HT8LEDYF7*** | 120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Yellow | $38.50 |
| ***HT8LEDGF7*** | 120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Green | $40.00 |
| ***HT8LEDBF7*** | 120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Blue | $44.00 |
| ***HT8LEDWF7*** | 120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: White | $48.50 |
| ***HT8LEDAF7*** | 120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Amber | $39.00 |

**NOTE: LED modules have very low current draw and should not be used with triac output devices like PLC triac output modules.**

EATON
Cutler-Hammer

# 30mm Legend Plates

## For Pushbutton Operators and Indicating Lights

| Legend | Color of Field | Catalog Number | Price |
|---|---|---|---|
| Clamp | Black | HT8SP90 | $7.75 |
| Close | Black | HT8SP73 | $7.75 |
| Down | Black | HT8SP74 | $7.75 |
| Emergency Stop | Red | HT8SP13 | $7.75 |
| Fast | Black | HT8SP75 | $7.75 |
| Faster | Black | HT8SP87 | $7.75 |
| Feeder On | Black | HT8SP94 | $7.75 |
| Feeder Off | Black | HT8SP95 | $7.75 |
| Forward | Black | HT8SP15 | $7.75 |
| High | Black | HT8SP16 | $7.75 |
| In | Black | HT8SP17 | $7.75 |
| Inch | Black | HT8SP18 | $7.75 |
| Jog | Black | HT8SP19 | $7.75 |
| Jog Forward | Black | HT8SP20 | $7.75 |
| Jog Reverse | Black | HT8SP21 | $7.75 |
| Low | Black | HT8SP22 | $7.75 |
| Lower | Black | HT8SP23 | $7.75 |
| Lube-fail | Black | HT8SP92 | $7.75 |
| Motor Run | Black | HT8SP81 | $7.75 |
| Motor Stop | Black | HT8SP82 | $7.75 |
| Off | Red | HT8SP24 | $7.75 |
| On | Black | HT8SP25 | $7.75 |
| Open | Black | HT8SP26 | $7.75 |
| Out | Black | HT8SP27 | $7.75 |
| Power On | Black | HT8SP80 | $7.75 |
| Raise | Black | HT8SP28 | $7.75 |
| Ready | Black | HT8SP86 | $7.75 |
| Reset | Black | HT8SP29 | $7.75 |
| Reverse | Black | HT8SP30 | $7.75 |
| Run | Black | HT8SP31 | $7.75 |
| Safe | Black | HT8SP85 | $7.75 |
| Slow | Black | HT8SP32 | $7.75 |
| Slower | Black | HT8SP88 | $7.75 |
| Start | Black | HT8SP33 | $7.75 |
| Stop | Red | HT8SP34 | $7.75 |
| Test | Black | HT8SP83 | $7.75 |
| Transfer | Black | HT8SP93 | $7.75 |
| Trip | Black | HT8SP84 | $7.75 |
| Unclamp | Black | HT8SP91 | $7.75 |
| Up | Black | HT8SP35 | $7.75 |

*Note: Dimensions: 1.77" (45mm) x1.77" (45mm)

## For Selector Switch Operators/ Two-Position

| Legend | Color of Field | Catalog Number | Price |
|---|---|---|---|
| Forward Reverse | Black | HT8SP38 | $7.75 |
| Hand Auto | Black | HT8SP39 | $7.75 |
| High Low | Black | HT8SP40 | $7.75 |
| Jog Run | Black | HT8SP41 | $7.75 |
| Manual Auto | Black | HT8SP67 | $7.75 |
| Off On | Black | HT8SP42 | $7.75 |
| Open Close | Black | HT8SP43 | $7.75 |
| Run Jog | Black | HT8SP44 | $7.75 |
| Safe Run | Black | HT8SP45 | $7.75 |
| Start Jog | Black | HT8SP46 | $7.75 |
| Start Stop | Black | HT8SP47 | $7.75 |
| Up Down | Black | HT8SP48 | $7.75 |

## For Selector Switch Operators/ Three-Position

| Legend | Color of Field | Catalog Number | Price |
|---|---|---|---|
| Auto Off Hand | Black | HT8SP49 | $7.75 |
| For. Off Rev | Black | HT8SP50 | $7.75 |
| For. Safe Rev. | Black | HT8SP69 | $7.75 |
| Hand Off Auto | Black | HT8SP51 | $7.75 |
| Man. Off Auto | Black | HT8SP68 | $7.75 |
| Open Off Close | Black | HT8SP53 | $7.75 |
| Run Safe Jog | Black | HT8SP70 | $7.75 |
| Up Off Down | Black | HT8SP54 | $7.75 |
| On Stop Safe | Black | HT8SP71 | $7.75 |

## For PUSH/PULL Units

| Legend 3/32" lettering | Color of Field | Catalog Number | Price |
|---|---|---|---|
| ON/OFF | Black | HT8PP5 | $7.75 |
| OPEN/CLOSE | Black | HT8PP8 | $7.75 |
| UP/DOWN | Black | HT8PP11 | $7.75 |

## Square Blank Plastic Legend Plates

| Lettering | Color of Field | Catalog Number | Price |
|---|---|---|---|
| Black | White/Silver | HT8SP76 | $7.75 |
| White | Red/Black | HT8SP77 | $7.75 |

## Round Plastic Legend Plates

| Legend | Color of Field | Catalog Number | Price |
|---|---|---|---|
| ESTOP | Yellow | HT8RP79 | $7.75 |

NOTE: 70 mm / 2-3/4" diameter

NOTE: All 30 mm legend plates are plastic.