



## Product Description

The HT800 Series from Eaton's Electrical Sector is a family of 30.5 mm pushbutton devices which includes momentary, illuminated and mushroom head pushbuttons, selector switches, indicating lights and push-pull switches. The HT800 devices have a familiar appearance found in most industrial applications and are suitable for replacement of several other manufacturers' 30.5 mm pushbutton devices.

## 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 NC contact opens before NO contact closes (break before make operation)
- Bright and long lasting LED indicating lights in six colors
- Field convertible maintained selector switches—from two- to three-position and vice versa
- Field selectable knob/lever mounting positions—at any 22.5° increment

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## Benefits

- Corrosion resistant NEMA 4X finish
- Watertight and oiltight NEMA 4, 13 ingress protection
- Increased side illumination of indicating lights and illuminated pushbuttons
- Easy visual inspection of contact conditions
- Easily identifiable NO (white) or NC (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 per File No. E131568
- CSA C22.2 No. 14 per File No. LR68551



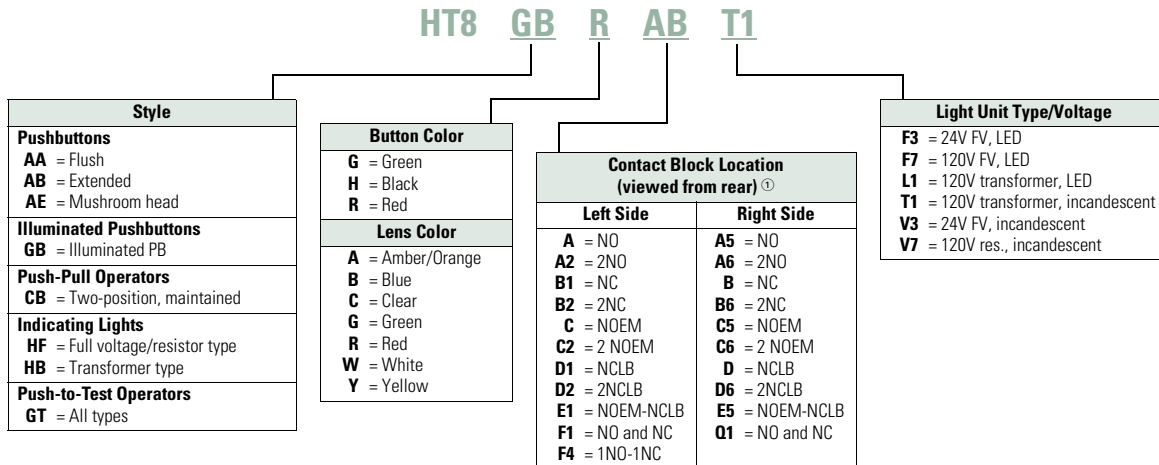
## Ingress Protection

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

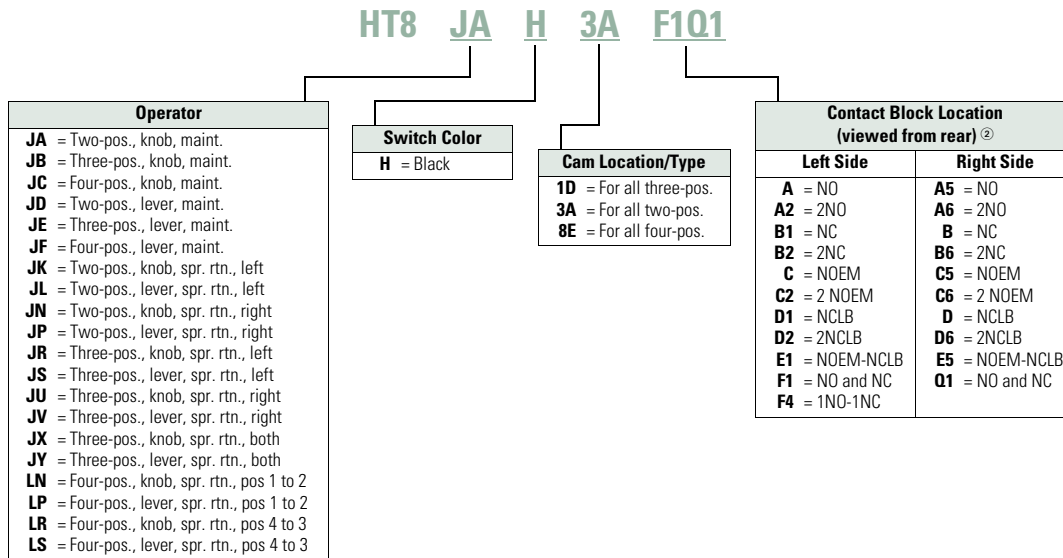
### Catalog Number Selection

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

### HT800 Pushbuttons, Push-Pulls and Indicating Lights



### HT800 Selector Switch



#### Notes

- ① Maximum of four contact blocks per side or a total of eight contact blocks recommended.
- ② Maximum of two contact blocks per side or a total of four contact blocks recommended.

## 1

**Product Selection****Momentary Pushbutton Units, Non-Illuminated**

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

- Flush, extended or 40 mm mushroom head operators

**HT800 Pushbuttons****HT800 Pushbuttons—Point-of-Purchase Units**

| Description   | Catalog Number         |
|---|------------------------|
| Two-position maintained selector switch 1NO/1NC contact block, three square legend plates: OFF ON, MAN. AUTO, UP DOWN   | <b>HT8JAH3AAB-POP</b>  |
| Three-position maintained selector switch, black knob, 1NO/1NC contact block, three square legend plates: HAND OFF AUTO, FOR. OFF REV., OPEN OFF CLOSE                      | <b>HT8JBH1DAB-POP</b>  |
| Three-position selector switch, spring return from left and right, black knob, 1NO/1NC contact block, three square legend plates: UP OFF DOWN, FOR OFF REV., OPEN OFF CLOSE | <b>HT8JXH1DAB-POP</b>  |
| Red push-pull emergency stop, 1NO/1NC contact block, three square legend plates: STOP, EMERG. STOP, OFF   | <b>HT8CBRAB-POP</b>    |
| Illuminated push-pull maintained red pushbutton, 120V full voltage low profile LED, three square legend plates: STOP, EMERG. STOP, OFF                                      | <b>HT8FBRABFL7-POP</b> |
| Illuminated push-pull maintained red pushbutton, 24V full voltage low profile LED, three square legend plates: STOP, EMERG. STOP, OFF                                       | <b>HT8FBRABFL3-POP</b> |
| Green flush pushbutton, 1NO/1NC contact block, three square legend plates: START, ON, RUN   | <b>HT8AAGAB-POP</b>    |
| Black flush pushbutton, 1NO/1NC contact block, three square legend plates: RESET, JOG, OPEN   | <b>HT8AAHAB-POP</b>    |
| Red flush pushbutton, 1NO/1NC contact block, three square legend plates: STOP, CLOSE, OFF   | <b>HT8AARAB-POP</b>    |
| Red extended pushbutton, 1NO/1NC contact block, three square legend plates: STOP, CLOSE, OFF  | <b>HT8ABRAB-POP</b>    |
| Black extended pushbutton, 1NO/1NC contact block, three square legend plates: RESET, JOG, OPEN  | <b>HT8ABHAB-POP</b>    |
| Green extended pushbutton, 1NO/1NC contact block, three square legend plates: START, ON, RUN  | <b>HT8ABGAB-POP</b>    |
| Illuminated green pushbutton, 120 V full voltage incandescent, 1NO/1NC contact block, three square legend plates: START, ON, RUN  | <b>HT8GBGABV7-POP</b>  |
| Illuminated green pushbutton, 24 V full voltage incandescent, 1NO/1NC contact block, three square legend plates: START, ON, RUN   | <b>HT8GBGABV3-POP</b>  |
| Illuminated green pushbutton, 24 V full voltage LED, 1NO/1NC contact block, three square legend plates: START, ON, RUN  | <b>HT8GBGABF3-POP</b>  |
| Illuminated green pushbutton, 120 V full voltage LED, 1NO/1NC contact block, three square legend plates: START, ON, RUN   | <b>HT8GBGABF7-POP</b>  |

**Flush Head Operator**



**Extended Head Operator**



**40 mm Mushroom Head Operator**



**Momentary Contact Pushbutton Units, Non-Illuminated**

| Contact Type | Button Color | Flush Head Catalog Number | Extended Head Catalog Number | Mushroom Head (40 mm) Catalog Number |
|--------------|--------------|---------------------------|------------------------------|--------------------------------------|
| No contact   | Black        | HT8AAH                    | HT8ABH                       | HT8AEH                               |
|              | Red          | HT8AAR                    | HT8ABR                       | HT8AER                               |
|              | Green        | HT8AAG                    | HT8ABG                       | HT8AEG                               |
| 1NO          | Black        | HT8AAHA                   | HT8ABHA                      | HT8AEHA                              |
|              | Red          | HT8AARA                   | HT8ABRA                      | HT8AERA                              |
|              | Green        | HT8AAGA                   | HT8ABGA                      | HT8AEGA                              |
| 1NC          | Black        | HT8AAHB                   | HT8ABHB                      | HT8AEHB                              |
|              | Red          | HT8AARB                   | HT8ABRB                      | HT8AERB                              |
|              | Green        | HT8AAGB                   | HT8ABGB                      | HT8AEGB                              |
| 1NO-1NC      | Black        | HT8AAHAB                  | HT8ABHAB                     | HT8AEHAB                             |
|              | Red          | HT8AARAB                  | HT8ABRAB                     | HT8AERAB                             |
|              | Green        | HT8AAGAB                  | HT8ABGAB                     | HT8AEGAB                             |
| 2NO-2NC      | Black        | HT8AAHF1Q1                | HT8ABHF1Q1                   | HT8AEHF1Q1                           |
|              | Red          | HT8AARF1Q1                | HT8ABRF1Q1                   | HT8AERF1Q1                           |
|              | Green        | HT8AAGF1Q1                | HT8ABGF1Q1                   | HT8AEGF1Q1                           |

## 1

**Illuminated Pushbutton Units**

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

- Incandescent or LED
- Full voltage or transformer type
- 24V and 120V

**Illuminated Pushbutton Operator****Illuminated Pushbuttons**

| Type                     | Volts           | Lens Color       | Operator Only Catalog Number | 1NO Catalog Number | 1NC Catalog Number  | 1NO-1NC Catalog Number | 2NO-2NC Catalog Number |
|--------------------------|-----------------|------------------|------------------------------|--------------------|---------------------|------------------------|------------------------|
| <b>Incandescent Lamp</b> |                 |                  |                              |                    |                     |                        |                        |
| Full voltage             | 120 Vac/Vdc     | No lens ①        | <b>HT8GBFV</b>               | —                  | —                   | —                      | —                      |
|                          |                 | Red              | <b>HT8GBRV7</b>              | <b>HT8GBRAV7</b>   | <b>HT8GBRBV7</b>    | <b>HT8GBRABV7</b>      | <b>HT8GBRF1Q1V7</b>    |
|                          |                 | Green            | <b>HT8GBGV7</b>              | <b>HT8GBGAV7</b>   | <b>HT8GBGBV7</b>    | <b>HT8GBGABV7</b>      | <b>HT8GBGF1Q1V7</b>    |
|                          |                 | Amber            | <b>HT8GBAV7</b>              | <b>HT8GBAAV7</b>   | <b>HT8GBABV7</b>    | <b>HT8GBAABV7</b>      | <b>HT8GBAF1Q1V7</b>    |
|                          |                 | Clear            | <b>HT8GBCV7</b>              | <b>HT8GBCAV7</b>   | <b>HT8GBCBV7</b>    | <b>HT8GBCABV7</b>      | <b>HT8GBCF1Q1V7</b>    |
|                          |                 | White            | <b>HT8GBWV7</b>              | <b>HT8GBWAV7</b>   | <b>HT8GBWBV7</b>    | <b>HT8GBWABV7</b>      | <b>HT8GBWF1Q1V7</b>    |
|                          |                 | Yellow           | <b>HT8GBYV7</b>              | <b>HT8GBYAV7</b>   | <b>HT8GBYBV7</b>    | <b>HT8GBYABV7</b>      | <b>HT8GBYF1Q1V7</b>    |
|                          | Blue            | <b>HT8GBBV7</b>  | <b>HT8GBBAV7</b>             | <b>HT8GBBBV7</b>   | <b>HT8GBBABV7</b>   | <b>HT8GBBF1Q1V7</b>    |                        |
|                          | 24 Vac/Vdc      | No lens ①        | <b>HT8GBFV</b>               | —                  | —                   | —                      | —                      |
|                          |                 | Red              | <b>HT8GBRV3</b>              | <b>HT8GBRAV3</b>   | <b>HT8GBRBV3</b>    | <b>HT8GBRABV3</b>      | <b>HT8GBRF1Q1V3</b>    |
|                          |                 | Green            | <b>HT8GBGV3</b>              | <b>HT8GBGAV3</b>   | <b>HT8GBGBV3</b>    | <b>HT8GBGABV3</b>      | <b>HT8GBGF1Q1V3</b>    |
|                          |                 | Amber            | <b>HT8GBAV3</b>              | <b>HT8GBAAV3</b>   | <b>HT8GBABV3</b>    | <b>HT8GBAABV3</b>      | <b>HT8GBAF1Q1V3</b>    |
|                          |                 | Clear            | <b>HT8GBCV3</b>              | <b>HT8GBCAV3</b>   | <b>HT8GBCBV3</b>    | <b>HT8GBCABV3</b>      | <b>HT8GBCF1Q1V3</b>    |
|                          |                 | White            | <b>HT8GBWV3</b>              | <b>HT8GBWAV3</b>   | <b>HT8GBWBV3</b>    | <b>HT8GBWABV3</b>      | <b>HT8GBWF1Q1V3</b>    |
| Yellow                   |                 | <b>HT8GBYV3</b>  | <b>HT8GBYAV3</b>             | <b>HT8GBYBV3</b>   | <b>HT8GBYABV3</b>   | <b>HT8GBYF1Q1V3</b>    |                        |
| Transformer              | 120 Vac         | No lens ①        | <b>HT8GBT1</b>               | —                  | —                   | —                      | —                      |
|                          |                 | Red              | <b>HT8GBRT1</b>              | <b>HT8GBRAT1</b>   | <b>HT8GBRBT1</b>    | <b>HT8GBRABT1</b>      | <b>HT8GBRF1Q1T1</b>    |
|                          |                 | Green            | <b>HT8GBGT1</b>              | <b>HT8GBGAT1</b>   | <b>HT8GBGBT1</b>    | <b>HT8GBGABT1</b>      | <b>HT8GBGF1Q1T1</b>    |
|                          |                 | Amber            | <b>HT8GBAT1</b>              | <b>HT8GBAAT1</b>   | <b>HT8GBABT1</b>    | <b>HT8GBAABT1</b>      | <b>HT8GBAF1Q1T1</b>    |
|                          |                 | Clear            | <b>HT8GBCT1</b>              | <b>HT8GBCAT1</b>   | <b>HT8GBCBT1</b>    | <b>HT8GBCABT1</b>      | <b>HT8GBCF1Q1T1</b>    |
|                          |                 | White            | <b>HT8GBWT1</b>              | <b>HT8GBWAT1</b>   | <b>HT8GBWBT1</b>    | <b>HT8GBWABT1</b>      | <b>HT8GBWF1Q1T1</b>    |
|                          |                 | Yellow           | <b>HT8GBYT1</b>              | <b>HT8GBYAT1</b>   | <b>HT8GBYBT1</b>    | <b>HT8GBYABT1</b>      | <b>HT8GBYF1Q1T1</b>    |
| Blue                     | <b>HT8GBBT1</b> | <b>HT8GBBAT1</b> | <b>HT8GBBBT1</b>             | <b>HT8GBBABT1</b>  | <b>HT8GBBF1Q1T1</b> |                        |                        |

**Note**

① Light unit base operator without lens or bulb.

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

**Illuminated Pushbutton Operator**



**Illuminated Pushbuttons, continued**

| Type         | Volts       | Lens Color | Operator Only Catalog Number | 1NO Catalog Number | 1NC Catalog Number | 1NO-1NC Catalog Number | 2NO-2NC Catalog Number |
|--------------|-------------|------------|------------------------------|--------------------|--------------------|------------------------|------------------------|
| <b>LED</b>   |             |            |                              |                    |                    |                        |                        |
| Full voltage | 120 Vac/Vdc | No lens ①  | <b>HT8GBFV</b>               | —                  | —                  | —                      | —                      |
|              |             | Red        | <b>HT8GBRF7</b>              | <b>HT8GBRAF7</b>   | <b>HT8GBRBF7</b>   | <b>HT8GBRABF7</b>      | <b>HT8GBRF1Q1F7</b>    |
|              |             | Green      | <b>HT8GBGF7</b>              | <b>HT8GBGAF7</b>   | <b>HT8GBGBF7</b>   | <b>HT8GBGABF7</b>      | <b>HT8GBGF1Q1F7</b>    |
|              |             | Amber      | <b>HT8GBAF7</b>              | <b>HT8GBAAF7</b>   | <b>HT8GBABF7</b>   | <b>HT8GBAABF7</b>      | <b>HT8GBAF1Q1F7</b>    |
|              |             | Clear      | <b>HT8GBCF7</b>              | <b>HT8GBCAF7</b>   | <b>HT8GBCBF7</b>   | <b>HT8GBCABF7</b>      | <b>HT8GBCF1Q1F7</b>    |
|              |             | White      | <b>HT8GBWF7</b>              | <b>HT8GBWAF7</b>   | <b>HT8GBWBF7</b>   | <b>HT8GBWABF7</b>      | <b>HT8GBWF1Q1F7</b>    |
|              |             | Yellow     | <b>HT8GBYF7</b>              | <b>HT8GBYAF7</b>   | <b>HT8GBYBF7</b>   | <b>HT8GBYABF7</b>      | <b>HT8GBYF1Q1F7</b>    |
|              |             | Blue       | <b>HT8GBBF7</b>              | <b>HT8GBBAF7</b>   | <b>HT8GBBBF7</b>   | <b>HT8GBBABF7</b>      | <b>HT8GBBF1Q1F7</b>    |
|              | 24 Vac/Vdc  | No lens ①  | <b>HT8GBFV</b>               | —                  | —                  | —                      | —                      |
|              |             | Red        | <b>HT8GBRF3</b>              | <b>HT8GBRAF3</b>   | <b>HT8GBRBF3</b>   | <b>HT8GBRABF3</b>      | <b>HT8GBRF1Q1F3</b>    |
|              |             | Green      | <b>HT8GBGF3</b>              | <b>HT8GBGAF3</b>   | <b>HT8GBGBF3</b>   | <b>HT8GBGABF3</b>      | <b>HT8GBGF1Q1F3</b>    |
|              |             | Amber      | <b>HT8GBAF3</b>              | <b>HT8GBAAF3</b>   | <b>HT8GBABF3</b>   | <b>HT8GBAABF3</b>      | <b>HT8GBAF1Q1F3</b>    |
|              |             | Clear      | <b>HT8GBCF3</b>              | <b>HT8GBCAF3</b>   | <b>HT8GBCBF3</b>   | <b>HT8GBCABF3</b>      | <b>HT8GBCF1Q1F3</b>    |
|              |             | White      | <b>HT8GBWF3</b>              | <b>HT8GBWAF3</b>   | <b>HT8GBWBF3</b>   | <b>HT8GBWABF3</b>      | <b>HT8GBWF1Q1F3</b>    |
|              |             | Blue       | <b>HT8GBBF3</b>              | <b>HT8GBBAF3</b>   | <b>HT8GBBBF3</b>   | <b>HT8GBBABF3</b>      | <b>HT8GBBF1Q1F3</b>    |
| Transformer  | 120 Vac     | No lens ①  | <b>HT8GBT1</b>               | —                  | —                  | —                      | —                      |
|              |             | Red        | <b>HT8GBRL1</b>              | <b>HT8GBRAL1</b>   | <b>HT8GBRBL1</b>   | <b>HT8GBRABL1</b>      | <b>HT8GBRF1Q1L1</b>    |
|              |             | Green      | <b>HT8GBGL1</b>              | <b>HT8GBGAL1</b>   | <b>HT8GBGBL1</b>   | <b>HT8GBGABL1</b>      | <b>HT8GBGF1Q1L1</b>    |
|              |             | Amber      | <b>HT8GBAL1</b>              | <b>HT8GBAAL1</b>   | <b>HT8GBABL1</b>   | <b>HT8GBAABL1</b>      | <b>HT8GBAF1Q1L1</b>    |
|              |             | Clear      | <b>HT8GBCL1</b>              | <b>HT8GBCAL1</b>   | <b>HT8GBCL1</b>    | <b>HT8GBCABL1</b>      | <b>HT8GBCF1Q1L1</b>    |
|              |             | White      | <b>HT8GBWL1</b>              | <b>HT8GBWAL1</b>   | <b>HT8GBWBL1</b>   | <b>HT8GBWABL1</b>      | <b>HT8GBWF1Q1L1</b>    |
|              |             | Yellow     | <b>HT8GBYL1</b>              | <b>HT8GBYAL1</b>   | <b>HT8GBYBL1</b>   | <b>HT8GBYABL1</b>      | <b>HT8GBYF1Q1L1</b>    |
|              |             | Blue       | <b>HT8GBBL1</b>              | <b>HT8GBBAL1</b>   | <b>HT8GBBBL1</b>   | <b>HT8GBBABL1</b>      | <b>HT8GBBF1Q1L1</b>    |

**Note**

① Light unit base operator without lens or bulb.

#### 1

#### Guarded Illuminated Pushbutton Units

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

- Incandescent or LED
- Full voltage or transformer type
- 24V and 120V

#### Guarded Illuminated Pushbutton Operator



#### Guarded Illuminated Pushbuttons

| Type                     | Volts       | Lens Color | Operator Only Catalog Number | 1NO Catalog Number | 1NC Catalog Number | 1NO-1NC Catalog Number | 2NO-2NC Catalog Number |
|--------------------------|-------------|------------|------------------------------|--------------------|--------------------|------------------------|------------------------|
| <b>Incandescent Lamp</b> |             |            |                              |                    |                    |                        |                        |
| Full voltage             | 120 Vac/Vdc | No lens ①  | <b>HT8GDFV</b>               | —                  | —                  | —                      | —                      |
|                          |             | Red        | <b>HT8GDRV7</b>              | <b>HT8GDRAV7</b>   | <b>HT8GDRBV7</b>   | <b>HT8GDRABV7</b>      | <b>HT8GDRF1Q1V7</b>    |
|                          |             | Green      | <b>HT8GDGV7</b>              | <b>HT8GDGAV7</b>   | <b>HT8GDGBV7</b>   | <b>HT8GDGABV7</b>      | <b>HT8GDGF1Q1V7</b>    |
|                          |             | Amber      | <b>HT8GDAV7</b>              | <b>HT8GDAAV7</b>   | <b>HT8GDABV7</b>   | <b>HT8GDAABV7</b>      | <b>HT8GDAF1Q1V7</b>    |
|                          |             | Clear      | <b>HT8GDCV7</b>              | <b>HT8GDVAV7</b>   | <b>HT8GDCBV7</b>   | <b>HT8GDCABV7</b>      | <b>HT8GDCF1Q1V7</b>    |
|                          |             | White      | <b>HT8GDWV7</b>              | <b>HT8GDWAV7</b>   | <b>HT8GDWBV7</b>   | <b>HT8GDWABV7</b>      | <b>HT8GDWF1Q1V7</b>    |
|                          |             | Yellow     | <b>HT8GDYV7</b>              | <b>HT8GDYAV7</b>   | <b>HT8GDYBV7</b>   | <b>HT8GDYABV7</b>      | <b>HT8GDYF1Q1V7</b>    |
|                          |             | Blue       | <b>HT8GDBV7</b>              | <b>HT8GDBAV7</b>   | <b>HT8GDBBV7</b>   | <b>HT8GDBABV7</b>      | <b>HT8GDBF1Q1V7</b>    |
|                          | 24 Vac/Vdc  | No lens ①  | <b>HT8GDFV</b>               | —                  | —                  | —                      | —                      |
|                          |             | Red        | <b>HT8GDRV3</b>              | <b>HT8GDRAV3</b>   | <b>HT8GDRBV3</b>   | <b>HT8GDRABV3</b>      | <b>HT8GDRF1Q1V3</b>    |
|                          |             | Green      | <b>HT8GDGV3</b>              | <b>HT8GDGAV3</b>   | <b>HT8GDGBV3</b>   | <b>HT8GDGABV3</b>      | <b>HT8GDGF1Q1V3</b>    |
|                          |             | Amber      | <b>HT8GDAV3</b>              | <b>HT8GDAAV3</b>   | <b>HT8GDABV3</b>   | <b>HT8GDAABV3</b>      | <b>HT8GDAF1Q1V3</b>    |
|                          |             | Clear      | <b>HT8GDCV3</b>              | <b>HT8GDVAV3</b>   | <b>HT8GDCBV3</b>   | <b>HT8GDCABV3</b>      | <b>HT8GDCF1Q1V3</b>    |
|                          |             | White      | <b>HT8GDWV3</b>              | <b>HT8GDWAV3</b>   | <b>HT8GDWBV3</b>   | <b>HT8GDWABV3</b>      | <b>HT8GDWF1Q1V3</b>    |
| Transformer              | 120 Vac     | No lens ①  | <b>HT8GDT1</b>               | —                  | —                  | —                      | —                      |
|                          |             | Red        | <b>HT8GDRT1</b>              | <b>HT8GDRAT1</b>   | <b>HT8GDRBT1</b>   | <b>HT8GDRABT1</b>      | <b>HT8GDRF1Q1T1</b>    |
|                          |             | Green      | <b>HT8GDGT1</b>              | <b>HT8GDGAT1</b>   | <b>HT8GDGBT1</b>   | <b>HT8GDGABT1</b>      | <b>HT8GDGF1Q1T1</b>    |
|                          |             | Amber      | <b>HT8GDAT1</b>              | <b>HT8GDAAT1</b>   | <b>HT8GDABT1</b>   | <b>HT8GDAABT1</b>      | <b>HT8GDAF1Q1T1</b>    |
|                          |             | Clear      | <b>HT8GDCT1</b>              | <b>HT8GDCAT1</b>   | <b>HT8GDCBT1</b>   | <b>HT8GDCABT1</b>      | <b>HT8GDCF1Q1T1</b>    |
|                          |             | White      | <b>HT8GDWT1</b>              | <b>HT8GDWAT1</b>   | <b>HT8GDWBT1</b>   | <b>HT8GDWABT1</b>      | <b>HT8GDWF1Q1T1</b>    |
|                          |             | Yellow     | <b>HT8GDYT1</b>              | <b>HT8GDYAT1</b>   | <b>HT8GDYBT1</b>   | <b>HT8GDYABT1</b>      | <b>HT8GDYF1Q1T1</b>    |
|                          |             | Blue       | <b>HT8GDBT1</b>              | <b>HT8GDBAT1</b>   | <b>HT8GDBBT1</b>   | <b>HT8GDBABT1</b>      | <b>HT8GDBF1Q1T1</b>    |

**Note**

① Light unit base operator without lens or bulb.

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

**Guarded Illuminated Pushbutton Operator**



**Guarded Illuminated Pushbuttons, continued**

| Type         | Volts           | Lens Color       | Operator Only Catalog Number | 1NO Catalog Number | 1NC Catalog Number  | 1NO-1NC Catalog Number | 2NO-2NC Catalog Number |
|--------------|-----------------|------------------|------------------------------|--------------------|---------------------|------------------------|------------------------|
| <b>LED</b>   |                 |                  |                              |                    |                     |                        |                        |
| Full voltage | 120 Vac/Vdc     | No lens ①        | <b>HT8GDFV</b>               | —                  | —                   | —                      | —                      |
|              |                 | Red              | <b>HT8GDRF7</b>              | <b>HT8GDRAF7</b>   | <b>HT8GDRBF7</b>    | <b>HT8GDRABF7</b>      | <b>HT8GDRF1Q1F7</b>    |
|              |                 | Green            | <b>HT8GDGF7</b>              | <b>HT8GDGAF7</b>   | <b>HT8GDGBF7</b>    | <b>HT8GDGABF7</b>      | <b>HT8GDGF1Q1F7</b>    |
|              |                 | Amber            | <b>HT8GDAF7</b>              | <b>HT8GDAAF7</b>   | <b>HT8GDABF7</b>    | <b>HT8GDAABF7</b>      | <b>HT8GDAF1Q1F7</b>    |
|              |                 | Clear            | <b>HT8GDCF7</b>              | <b>HT8GDCAF7</b>   | <b>HT8GDCBF7</b>    | <b>HT8GDCABF7</b>      | <b>HT8GDCF1Q1F7</b>    |
|              |                 | White            | <b>HT8GDWF7</b>              | <b>HT8GDWAF7</b>   | <b>HT8GDWBF7</b>    | <b>HT8GDWABF7</b>      | <b>HT8GDWF1Q1F7</b>    |
|              |                 | Yellow           | <b>HT8GDYF7</b>              | <b>HT8GDYAF7</b>   | <b>HT8GDYBF7</b>    | <b>HT8GDYABF7</b>      | <b>HT8GDYF1Q1F7</b>    |
|              | Blue            | <b>HT8GDBF7</b>  | <b>HT8GDBAF7</b>             | <b>HT8GDBBF7</b>   | <b>HT8GDBABF7</b>   | <b>HT8GDBF1Q1F7</b>    |                        |
|              | 24 Vac/Vdc      | No lens ①        | <b>HT8GDFV</b>               | —                  | —                   | —                      | —                      |
|              |                 | Red              | <b>HT8GDRF3</b>              | <b>HT8GDRAF3</b>   | <b>HT8GDRBF3</b>    | <b>HT8GDRABF3</b>      | <b>HT8GDRF1Q1F3</b>    |
|              |                 | Green            | <b>HT8GDGF3</b>              | <b>HT8GDGAF3</b>   | <b>HT8GDGBF3</b>    | <b>HT8GDGABF3</b>      | <b>HT8GDGF1Q1F3</b>    |
|              |                 | Amber            | <b>HT8GDAF3</b>              | <b>HT8GDAAF3</b>   | <b>HT8GDABF3</b>    | <b>HT8GDAABF3</b>      | <b>HT8GDAF1Q1F3</b>    |
|              |                 | Clear            | <b>HT8GDCF3</b>              | <b>HT8GDCAF3</b>   | <b>HT8GDCBF3</b>    | <b>HT8GDCABF3</b>      | <b>HT8GDCF1Q1F3</b>    |
|              |                 | White            | <b>HT8GDWF3</b>              | <b>HT8GDWAF3</b>   | <b>HT8GDWBF3</b>    | <b>HT8GDWABF3</b>      | <b>HT8GDWF1Q1F3</b>    |
| Yellow       |                 | <b>HT8GDYF3</b>  | <b>HT8GDYAF3</b>             | <b>HT8GDYBF3</b>   | <b>HT8GDYABF3</b>   | <b>HT8GDYF1Q1F3</b>    |                        |
| Blue         | <b>HT8GDBF3</b> | <b>HT8GDBAF3</b> | <b>HT8GDBBF3</b>             | <b>HT8GDBABF3</b>  | <b>HT8GDBF1Q1F3</b> |                        |                        |
| Transformer  | 120 Vac         | No lens ①        | <b>HT8GDT1</b>               | —                  | —                   | —                      | —                      |
|              |                 | Red              | <b>HT8GDRL1</b>              | <b>HT8GDRAL1</b>   | <b>HT8GDRBL1</b>    | <b>HT8GDRABL1</b>      | <b>HT8GDRF1Q1L1</b>    |
|              |                 | Green            | <b>HT8GDGL1</b>              | <b>HT8GDGAL1</b>   | <b>HT8GDGBL1</b>    | <b>HT8GDGABL1</b>      | <b>HT8GDGF1Q1L1</b>    |
|              |                 | Amber            | <b>HT8GDAL1</b>              | <b>HT8GDAAL1</b>   | <b>HT8GDABL1</b>    | <b>HT8GDAABL1</b>      | <b>HT8GDAF1Q1L1</b>    |
|              |                 | Clear            | <b>HT8GDCL1</b>              | <b>HT8GDCAL1</b>   | <b>HT8GDCBL1</b>    | <b>HT8GDCABL1</b>      | <b>HT8GDCF1Q1L1</b>    |
|              |                 | White            | <b>HT8GDWL1</b>              | <b>HT8GDWAL1</b>   | <b>HT8GDWBL1</b>    | <b>HT8GDWABL1</b>      | <b>HT8GDWF1Q1L1</b>    |
|              |                 | Yellow           | <b>HT8GDYL1</b>              | <b>HT8GDYAL1</b>   | <b>HT8GDYBL1</b>    | <b>HT8GDYABL1</b>      | <b>HT8GDYF1Q1L1</b>    |
|              |                 | Blue             | <b>HT8GDBL1</b>              | <b>HT8GDBAL1</b>   | <b>HT8GDBBL1</b>    | <b>HT8GDBABL1</b>      | <b>HT8GDBF1Q1L1</b>    |

**Note**

① Light unit base operator without lens or bulb.



#### 1

### Indicating Light Units

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

- Incandescent or LED
- Full voltage or transformer type
- Standard and PresTest types
- 24V and 120V

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.

Indicating Light Unit



PresTest Light Unit



### Indicating Light Units

| Type                | Volts               | Lens Color | Indicating Light Catalog Number | PresTest Catalog Number |
|---------------------|---------------------|------------|---------------------------------|-------------------------|
| <b>Incandescent</b> |                     |            |                                 |                         |
| Full voltage        | 120 Vac/Vdc         | No lens ①  | <b>HT8HFFV</b>                  | <b>HT8GTFV</b>          |
|                     |                     | Red        | <b>HT8HFRV7</b>                 | <b>HT8GTRV7</b>         |
|                     |                     | Green      | <b>HT8HFGV7</b>                 | <b>HT8GTGV7</b>         |
|                     |                     | Amber      | <b>HT8HFAV7</b>                 | <b>HT8GTAV7</b>         |
|                     |                     | Clear      | <b>HT8HFCV7</b>                 | <b>HT8GTCV7</b>         |
|                     |                     | White      | <b>HT8HFWV7</b>                 | <b>HT8GTWV7</b>         |
|                     |                     | Yellow     | <b>HT8HFVY7</b>                 | <b>HT8GTYV7</b>         |
|                     |                     | Blue       | <b>HT8HFBV7</b>                 | <b>HT8GTBV7</b>         |
|                     | 24 Vac/Vdc          | No lens ①  | <b>HT8HFFV</b>                  | <b>HT8GTFV</b>          |
|                     |                     | Red        | <b>HT8HFRV3</b>                 | <b>HT8GTRV3</b>         |
|                     |                     | Green      | <b>HT8HFGV3</b>                 | <b>HT8GTGV3</b>         |
|                     |                     | Amber      | <b>HT8HFAV3</b>                 | <b>HT8GTAV3</b>         |
|                     |                     | Clear      | <b>HT8HFCV3</b>                 | <b>HT8GTCV3</b>         |
|                     |                     | White      | <b>HT8HFWV3</b>                 | <b>HT8GTWV3</b>         |
|                     |                     | Yellow     | <b>HT8HFVY3</b>                 | <b>HT8GTYV3</b>         |
|                     |                     | Blue       | <b>HT8HFBV3</b>                 | <b>HT8GTBV3</b>         |
| Transformer         | 120 Vac<br>50/60 Hz | No lens ①  | <b>HT8HBT1</b>                  | <b>HT8GTT1</b>          |
|                     |                     | Red        | <b>HT8HBRT1</b>                 | <b>HT8GTRT1</b>         |
|                     |                     | Green      | <b>HT8HBGT1</b>                 | <b>HT8GTGT1</b>         |
|                     |                     | Amber      | <b>HT8HBAT1</b>                 | <b>HT8GTAT1</b>         |
|                     |                     | Clear      | <b>HT8HBCT1</b>                 | <b>HT8GTCT1</b>         |
|                     |                     | White      | <b>HT8HBWT1</b>                 | <b>HT8GTWT1</b>         |
|                     |                     | Yellow     | <b>HT8HBYT1</b>                 | <b>HT8GTYT1</b>         |
|                     |                     | Blue       | <b>HT8HBBT1</b>                 | <b>HT8GTBT1</b>         |

**Note**

① Light unit base operator without lens or bulb.

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

**Indicating Light Unit**



**Indicating Light Units, continued**

**PresTest Light Unit**



| Type         | Volts               | Lens Color | Indicating Light Catalog Number | PresTest Catalog Number |
|--------------|---------------------|------------|---------------------------------|-------------------------|
| <b>LED</b>   |                     |            |                                 |                         |
| Full voltage | 120 Vac/Vdc         | No lens ①  | <b>HT8HFFV</b>                  | <b>HT8GTFV</b>          |
|              |                     | Red        | <b>HT8HFRF7</b>                 | <b>HT8GTRF7</b>         |
|              |                     | Green      | <b>HT8HFGF7</b>                 | <b>HT8GTGF7</b>         |
|              |                     | Amber      | <b>HT8HFAF7</b>                 | <b>HT8GTAF7</b>         |
|              |                     | Clear      | <b>HT8HFCF7</b>                 | <b>HT8GTCF7</b>         |
|              |                     | White      | <b>HT8HFWF7</b>                 | <b>HT8GTWF7</b>         |
|              |                     | Yellow     | <b>HT8HFVF7</b>                 | <b>HT8GTVF7</b>         |
|              |                     | Blue       | <b>HT8HBF7</b>                  | <b>HT8GTBF7</b>         |
|              | 24 Vac/Vdc          | No lens ①  | <b>HT8HFFV</b>                  | <b>HT8GTFV</b>          |
|              |                     | Red        | <b>HT8HFRF3</b>                 | <b>HT8GTRF3</b>         |
|              |                     | Green      | <b>HT8HFGF3</b>                 | <b>HT8GTGF3</b>         |
|              |                     | Amber      | <b>HT8HFAF3</b>                 | <b>HT8GTAF3</b>         |
|              |                     | Clear      | <b>HT8HFCF3</b>                 | <b>HT8GTCF3</b>         |
|              |                     | White      | <b>HT8HFWF3</b>                 | <b>HT8GTWF3</b>         |
|              |                     | Yellow     | <b>HT8HFVF3</b>                 | <b>HT8GTVF3</b>         |
|              |                     | Blue       | <b>HT8HBF3</b>                  | <b>HT8GTBF3</b>         |
| Transformer  | 120 Vac<br>50/60 Hz | No lens ①  | <b>HT8HBT1</b>                  | <b>HT8GTT1</b>          |
|              |                     | Red        | <b>HT8HBRL1</b>                 | <b>HT8GTRL1</b>         |
|              |                     | Green      | <b>HT8HBGL1</b>                 | <b>HT8GTGL1</b>         |
|              |                     | Amber      | <b>HT8HBAL1</b>                 | <b>HT8GTAL1</b>         |
|              |                     | Clear      | <b>HT8HBCL1</b>                 | <b>HT8GTCL1</b>         |
|              |                     | White      | <b>HT8HBWL1</b>                 | <b>HT8GTWL1</b>         |
|              |                     | Yellow     | <b>HT8HBYL1</b>                 | <b>HT8GTYL1</b>         |
|              |                     | Blue       | <b>HT8HBBL1</b>                 | <b>HT8GTBL1</b>         |

**Note**

① Light unit base operator without lens or bulb.

#### 1

#### Push-Pull Units

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

- 40 mm mushroom head
- Two-position maintained
- Non-illuminated

#### Round Head Two-Position Push-Pull Unit



#### Flat Head Two-Position Push-Pull Unit



#### Two-Position Push-Pull, Maintained, Non-Illuminated

| Contact Type      | Operator Position—Maintained |    | Button Color | Round Head Mushroom Head Button Catalog Number | Flat Head Mushroom Head Button Catalog Number |
|-------------------|------------------------------|----|--------------|--|---|
|                   | Out                          | In |              |  |   |
| No contact        | —                            | —  | Black        | <b>HT8CBH</b>                                  | <b>HT8DBH</b>                                 |
|                   |                              |    | Red          | <b>HT8CBR</b>                                  | <b>HT8DBR</b>                                 |
|                   |                              |    | Green        | <b>HT8CBG</b>                                  | <b>HT8DBG</b>                                 |
| NO                | 0                            | X  | Black        | <b>HT8CBHA</b>                                 | <b>HT8DBHA</b>                                |
|                   |                              |    | Red          | <b>HT8CBRA</b>                                 | <b>HT8DBRA</b>                                |
|                   |                              |    | Green        | <b>HT8CBGA</b>                                 | <b>HT8DBGA</b>                                |
| NC                | X                            | 0  | Black        | <b>HT8CBHB</b>                                 | <b>HT8DBHB</b>                                |
|                   |                              |    | Red          | <b>HT8CBRB</b>                                 | <b>HT8DBRB</b>                                |
|                   |                              |    | Green        | <b>HT8CBGB</b>                                 | <b>HT8DBGB</b>                                |
| NO-NC             | 0                            | X  | Black        | <b>HT8CBHAB</b>                                | <b>HT8DBHAB</b>                               |
|                   | X                            | 0  | Red          | <b>HT8CBRAB</b>                                | <b>HT8DBRAB</b>                               |
|                   |                              |    | Green        | <b>HT8CBGAB</b>                                | <b>HT8DBGAB</b>                               |
| NCLB <sup>Ⓢ</sup> | X                            | 0  | Black        | <b>HT8CBHD1B</b>                               | <b>HT8DBHD1B</b>                              |
| NC                | X                            | 0  | Red          | <b>HT8CBRD1B</b>                               | <b>HT8DBRD1B</b>                              |
|                   |                              |    | Green        | <b>HT8CBGD1B</b>                               | <b>HT8DBGD1B</b>                              |
| NCLB <sup>Ⓢ</sup> | X                            | 0  | Black        | <b>HT8CBHD1D</b>                               | <b>HT8DBHD1D</b>                              |
| NCLB <sup>Ⓢ</sup> | X                            | 0  | Red          | <b>HT8CBRD1D</b>                               | <b>HT8DBRD1D</b>                              |
|                   |                              |    | Green        | <b>HT8CBGD1D</b>                               | <b>HT8DBGD1D</b>                              |

**Note**

<sup>Ⓢ</sup> NCLB = normally closed late break.

### Illuminated Push-Pull Units

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

- Incandescent or LED
- Full voltage or transformer type
- 24V and 120V

**Illuminated Push-Pull Unit**



### Illuminated Push-Pull Units

| Type                     | Volts       | Lens Color | Operator Only Catalog Number | 1NO Catalog Number | 1NC Catalog Number | 1NO-1NC Catalog Number | 2NCLB Catalog Number |
|--------------------------|-------------|------------|------------------------------|--------------------|--------------------|------------------------|----------------------|
| <b>Incandescent Lamp</b> |             |            |                              |                    |                    |                        |                      |
| Full voltage             | 120 Vac/Vdc | Red        | HT8FBRV7                     | HT8FBRAV7          | HT8FBRBV7          | HT8FBRAV7              | HT8FBRD1DV7          |
|                          |             | Green      | HT8FBGV7                     | HT8FBGAV7          | HT8FBGBV7          | HT8FBGAV7              | HT8FBGD1DV7          |
|                          | 24 Vac/Vdc  | Red        | HT8FBRV3                     | HT8FBRAV3          | HT8FBRBV3          | HT8FBRAV3              | HT8FBRD1DV3          |
|                          |             | Green      | HT8FBGV3                     | HT8FBGAV3          | HT8FBGBV3          | HT8FBGAV3              | HT8FBGD1DV3          |
| Transformer              | 120 Vac     | Red        | HT8FBRT1                     | HT8FBRA1           | HT8FBRBT1          | HT8FBRA1               | HT8FBRD1DT1          |
|                          |             | Green      | HT8FBGT1                     | HT8FBGA1           | HT8FBGBT1          | HT8FBGA1               | HT8FBGD1DT1          |
| <b>LED Lamp</b>          |             |            |                              |                    |                    |                        |                      |
| Full voltage             | 120 Vac/Vdc | Red        | HT8FBRF7                     | HT8FBRAF7          | HT8FBRBF7          | HT8FBRAF7              | HT8FBRD1DF7          |
|                          |             | Green      | HT8FBGF7                     | HT8FBGAF7          | HT8FBGBF7          | HT8FBGAF7              | HT8FBGD1DF7          |
|                          | 24 Vac/Vdc  | Red        | HT8FBRF3                     | HT8FBRAF3          | HT8FBRBF3          | HT8FBRAF3              | HT8FBRD1DF3          |
|                          |             | Green      | HT8FBGF3                     | HT8FBGAF3          | HT8FBGBF3          | HT8FBGAF3              | HT8FBGD1DF3          |
| Transformer              | 120 Vac     | Red        | HT8FBRL1                     | HT8FBRA1           | HT8FBRBL1          | HT8FBRA1               | HT8FBRD1DL1          |
|                          |             | Green      | HT8FBGL1                     | HT8FBGA1           | HT8FBGBL1          | HT8FBGA1               | HT8FBGD1DL1          |

**Note:** Complete illuminated push-pull switches will not fit in a standard 3 in deep enclosure.

### Illuminated Push-Pull Units with Low Profile Light Units

| Type                | Voltage     | Color | Fingersafe | Operator Only Catalog Number | 1NO Catalog Number | 1NC Catalog Number | 1NO-1NC Catalog Number | 2NCLB Catalog Number | 1NO-1NCLB Catalog Number |
|---------------------|-------------|-------|------------|------------------------------|--------------------|--------------------|------------------------|----------------------|--------------------------|
| <b>LED Lamp</b>     |             |       |            |                              |                    |                    |                        |                      |                          |
| Full voltage        | 120 Vac/Vdc | Red   | Yes        | HT8FBRFL7P                   | HT8FBRAFL7P        | HT8FBRBFL7P        | HT8FBRAFL7P            | HT8FBRD1DFL7P        | HT8FBRD1BFL7P            |
|                     |             | Red   | No         | HT8FBRFL7                    | HT8FBRAFL7         | HT8FBRBFL7         | HT8FBRAFL7             | HT8FBRD1DFL7         | HT8FBRD1BFL7             |
|                     | 24 Vac/Vdc  | Red   | Yes        | HT8FBRFL3P                   | HT8FBRAFL3P        | HT8FBRBFL3P        | HT8FBRAFL3P            | HT8FBRD1DFL3P        | HT8FBRD1BFL3P            |
|                     |             | Red   | No         | HT8FBRFL3                    | HT8FBRAFL3         | HT8FBRBFL3         | HT8FBRAFL3             | HT8FBRD1DFL3         | HT8FBRD1BFL3             |
| <b>Incandescent</b> |             |       |            |                              |                    |                    |                        |                      |                          |
| Full voltage        | 120 Vac/Vdc | Red   | Yes        | HT8FBRVL7P                   | HT8FBRAVL7P        | HT8FBRBVL7P        | HT8FBRAVL7P            | HT8FBRD1DVL7P        | HT8FBRD1BVL7P            |
|                     |             | Red   | No         | HT8FBRVL7                    | HT8FBRAVL7         | HT8FBRBVL7         | HT8FBRAVL7             | HT8FBRD1DVL7         | HT8FBRD1BVL7             |
|                     | 24 Vac/Vdc  | Red   | Yes        | HT8FBRVL3P                   | HT8FBRAVL3P        | HT8FBRBVL3P        | HT8FBRAVL3P            | HT8FBRD1DVL3P        | HT8FBRD1BVL3P            |
|                     |             | Red   | No         | HT8FBRVL3                    | HT8FBRAVL3         | HT8FBRBVL3         | HT8FBRAVL3             | HT8FBRD1DVL3         | HT8FBRD1BVL3             |

# 1

## Selector Switch Units

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

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

### Standard Knob Operator



### Standard Lever Operator



### Two-Position Selector Switch Units, Non-Illuminated

| Contact Type | Operator Position <sup>①</sup> |                  | Operating Mode <sup>②</sup> |   | Standard Black Knob Catalog Number | Standard Black Lever Catalog Number |
|--------------|--------------------------------|------------------|-----------------------------|---|------------------------------------|-------------------------------------|
|              |                                |                  |                             |   |                                    |                                     |
| No contacts  | —                              | —                | M                           | M | HT8JAH3A                           | HT8JDH3A                            |
|              |                                |                  | S                           | M | HT8JKH3A                           | HT8JLH3A                            |
|              |                                |                  | M                           | S | HT8JNH3A                           | HT8JPH3A                            |
| 1NO          | 0                              | X                | M                           | M | HT8JAH3AA5                         | HT8JDH3AA5                          |
|              |                                |                  | S                           | M | HT8JKH3AA5                         | HT8JLH3AA5                          |
|              |                                |                  | M                           | S | HT8JNH3AA5                         | HT8JPH3AA5                          |
| 2NO          | X<br>0                         | 0<br>X           | M                           | M | HT8JAH3AAA5                        | HT8JDH3AAA5                         |
|              |                                |                  | S                           | M | HT8JKH3AAA5                        | HT8JLH3AAA5                         |
|              |                                |                  | M                           | S | HT8JNH3AAA5                        | HT8JPH3AAA5                         |
| 2NO-2NC      | X<br>0<br>0<br>X               | 0<br>X<br>X<br>0 | M                           | M | HT8JAH3AF1Q1                       | HT8JDH3AF1Q1                        |
|              |                                |                  | S                           | M | HT8JKH3AF1Q1                       | HT8JLH3AF1Q1                        |
|              |                                |                  | M                           | S | HT8JNH3AF1Q1                       | HT8JPH3AF1Q1                        |

### Standard Knob Operator



### Standard Lever Operator



### Three-Position Selector Switch Units, Non-Illuminated

| Contact Type         | Operator Position <sup>①</sup> |                  |                  | Operating Mode <sup>②</sup> |   |   | Standard Black Knob Catalog Number | Standard Black Lever Catalog Number |
|----------------------|--------------------------------|------------------|------------------|-----------------------------|---|---|------------------------------------|-------------------------------------|
|                      |                                |                  |                  |                             |   |   |                                    |                                     |
| No contacts          | —                              | —                | —                | M                           | M | M | HT8JBH1D                           | HT8JEH1D                            |
|                      |                                |                  |                  | S                           | M | M | HT8JRH1D                           | HT8JSH1D                            |
|                      |                                |                  |                  | M                           | M | S | HT8JUH1D                           | HT8JVH1D                            |
|                      |                                |                  |                  | S                           | M | S | HT8JXH1D                           | HT8JYH1D                            |
| 2NO                  | X<br>0                         | 0<br>0           | 0<br>X           | M                           | M | M | HT8JBH1DAA5                        | HT8JEH1DAA5                         |
|                      |                                |                  |                  | S                           | M | M | HT8JRH1DAA5                        | HT8JSH1DAA5                         |
|                      |                                |                  |                  | M                           | M | S | HT8JUH1DAA5                        | HT8JVH1DAA5                         |
|                      |                                |                  |                  | S                           | M | S | HT8JXH1DAA5                        | HT8JYH1DAA5                         |
| 2NO-2NC <sup>③</sup> | X<br>0<br>0                    | 0<br>X<br>0      | 0<br>0<br>X      | M                           | M | M | HT8JBH1DF1Q1                       | HT8JEH1DF1Q1                        |
|                      |                                |                  |                  | S                           | M | M | HT8JRH1DF1Q1                       | HT8JSH1DF1Q1                        |
|                      |                                |                  |                  | M                           | M | S | HT8JUH1DF1Q1                       | HT8JVH1DF1Q1                        |
|                      |                                |                  |                  | S                           | M | S | HT8JXH1DF1Q1                       | HT8JYH1DF1Q1                        |
| 2NO-2NC              | X<br>0<br>0<br>X               | 0<br>X<br>0<br>X | X<br>X<br>0<br>0 | M                           | M | M | HT8JBH1DF1Q1                       | HT8JEH1DF1Q1                        |
|                      |                                |                  |                  | S                           | M | M | HT8JRH1DF1Q1                       | HT8JSH1DF1Q1                        |
|                      |                                |                  |                  | M                           | M | S | HT8JUH1DF1Q1                       | HT8JVH1DF1Q1                        |
|                      |                                |                  |                  | S                           | M | S | HT8JXH1DF1Q1                       | HT8JYH1DF1Q1                        |

#### Notes

① X = closed circuit, 0 = open circuit.

② M = Maintained, S = Momentary.

③ For OX0, NC contacts must be wired in series—see Three-Position Selector Switch table on Page V7-T1-340.

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

**Standard Knob Operator**



### Four-Position Selector Switch Units, Non-Illuminated

**Standard Lever Operator**



| Contact Type | Operator Position <sup>①</sup> |   |   |   | Operating Mode <sup>②</sup> |   |   |   | Standard Black Knob Catalog Number | Standard Black Lever Catalog Number |
|--------------|--------------------------------|---|---|---|-----------------------------|---|---|---|------------------------------------|-------------------------------------|
|              |                                |   |   |   |                             |   |   |   |                                    |                                     |
| No contacts  | —                              | — | — | — | M                           | M | M | M | <b>HT8JCH8E</b>                    | <b>HT8JFH8E</b>                     |
|              |                                |   |   |   | S                           | M | M | M | <b>HT8LNH8E</b>                    | <b>HT8LPH8E</b>                     |
|              |                                |   |   |   | M                           | M | M | S | <b>HT8LRH8E</b>                    | <b>HT8LSH8E</b>                     |
| 2NO-2NC      | X                              | 0 | 0 | 0 | M                           | M | M | M | <b>HT8JCH8EF1Q1</b>                | <b>HT8JFH8EF1Q1</b>                 |
|              | 0                              | X | 0 | 0 | S                           | M | M | M | <b>HT8LNH8EF1Q1</b>                | <b>HT8LPH8EF1Q1</b>                 |
|              | 0                              | 0 | X | 0 | S                           | M | M | M | <b>HT8LNH8EF1Q1</b>                | <b>HT8LPH8EF1Q1</b>                 |
|              | 0                              | 0 | 0 | X | M                           | M | M | S | <b>HT8LRH8EF1Q1</b>                | <b>HT8LSH8EF1Q1</b>                 |

**Notes**

- ① X = closed circuit, 0 = open circuit.
- ② M = Maintained, S = Momentary.







#### 1

### Selector Switch Contact Block Selection

#### For Two-, Three- and Four-Position Selector Switches










#### Two-Position Selector Switch (Cam Code 3A)

##### Operator Position

|   |  |  | Left  | or | Right   |
|---|---|---|---|----|---|
| X | 0   |   | <br>NO |    | <br>NC |
| 0 |   | X   | <br>NC |    | <br>NO |









#### Three-Position Selector Switch (Cam Code 1D)

##### Operator Position

|   |  |  |  | Left   | Right   |
|---|---|---|---|--|---|
| X | 0   | 0   |   | <br>NO  | —   |
| 0 |   | X   | 0   | <br>NC  | <br>NC   |
| 0 | 0   | 0   | X   | —  | <br>NO   |
| 0 |   | X   | X   | <br>NC | —   |
| X |   | X   | 0   | —  | <br>NC |

#### Four-Position Selector Switch (Cam Code 8E)

##### Operator Position

|   |  |  |  |  | Left  | Right  |
|---|---|---|---|---|---|--|
| X | 0   | 0   | 0   |   | <br>NO | —  |
| 0 |   | X   | 0   | 0   | <br>NC | —  |
| 0 | 0   | 0   | X   | 0   | —   | <br>NO |
| 0 | 0   | 0   | 0   | X   | —   | <br>NC |

### Accessories

#### HT800 Accessories

|  | Description   | Catalog Number |
|--|---|----------------|
| HT8A15<br>      | Illuminated Pushbutton Guard  | HT8A15         |
| HT8WRENCH<br>   | Wrench Tool   | HT8WRENCH      |
| HT8LAMPTOOL<br> | Lamp/Bulb Removal Tool  | HT8LAMPTOOL    |
| HT8X1<br>       | Thrust Washer (Anti-rotation)<br>(Included with every operator)                       | HT8X1          |
| HT8X2<br>      | Trim Ring<br>(Included with every operator)   | HT8X2          |
| HT8X3<br>     | Sealing/Spacer Washer<br>(Five included with every operator)                          | HT8X3          |
| HT8GR1<br>    | Grounding Kit for Pushbuttons and Selector Switches<br>(Included with every operator) | HT8GR1         |
| HT8GR2<br>    | Grounding Kit for Indicating Lights<br>(Included with indicating lights)              | HT8GR2         |

#### Light Units

##### Light Unit



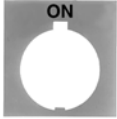
| Type         | Voltage     | Catalog Number |
|--------------|-------------|----------------|
| Full voltage | 24 Vac/Vdc  | HT8F3V3        |
|              | 120 Vac/Vdc | HT8F7V8        |
| Transformer  | 120 Vac     | HT8L1T1        |



## Options

### Legend Plates ①

#### Standard



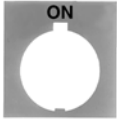
#### Jumbo



### For Pushbutton Operators and Indicating Lights

| Legend   | Color of Field | Standard Catalog Number | Jumbo Catalog Number | Legend   | Color of Field | Standard Catalog Number | Jumbo Catalog Number |
|--|----------------|-------------------------|----------------------|----------|----------------|-------------------------|----------------------|
| <b>Letters on Legend Plates Below are 3/16 in High</b> |                |                         |                      |          |                |                         |                      |
| CLAMP  | Black          | HT8SP90                 | HT8LP90              | OFF      | Red            | HT8SP24                 | HT8LP24              |
| CLOSE  |                | HT8SP73                 | HT8LP73              | ON       | Black          | HT8SP25                 | HT8LP25              |
| DOWN   |                | HT8SP74                 | HT8LP74              | OPEN     |                | HT8SP26                 | HT8LP26              |
| EMERG. STOP  |                | HT8SP13                 | HT8LP13              | OUT      |                | HT8SP27                 | HT8LP27              |
| FAST   |                | HT8SP75                 | HT8LP75              | POWER ON |                | HT8SP80                 | HT8LP80              |
| FASTER   |                | HT8SP87                 | HT8LP87              | RAISE    |                | HT8SP28                 | HT8LP28              |
| FEEDER ON  |                | HT8SP94                 | HT8LP94              | READY    |                | HT8SP86                 | HT8LP86              |
| FEEDER OFF   |                | HT8SP95                 | HT8LP95              | RESET    |                | HT8SP29                 | HT8LP29              |
| FORWARD  |                | HT8SP15                 | HT8LP15              | REVERSE  |                | HT8SP30                 | HT8LP30              |
| HIGH   |                | HT8SP16                 | HT8LP16              | RUN      |                | HT8SP31                 | HT8LP31              |
| IN   |                | HT8SP17                 | HT8LP17              | SAFE     |                | HT8SP85                 | HT8LP85              |
| INCH   |                | HT8SP18                 | HT8LP18              | SLOW     |                | HT8SP32                 | HT8LP32              |
| JOG  |                | HT8SP19                 | HT8LP19              | SLOWER   |                | HT8SP88                 | HT8LP88              |
| JOG FOR.   |                | HT8SP20                 | HT8LP20              | START    |                | HT8SP33                 | HT8LP33              |
| JOG REV.   |                | HT8SP21                 | HT8LP21              | STOP     | Red            | HT8SP34                 | HT8LP34              |
| LOW  |                | HT8SP22                 | HT8LP22              | TEST     | Black          | HT8SP83                 | HT8LP83              |
| LOWER  |                | HT8SP23                 | HT8LP23              | TRANSFER |                | HT8SP93                 | HT8LP93              |
| LUBE-FAIL  |                | HT8SP92                 | HT8LP92              | TRIP     |                | HT8SP84                 | HT8LP84              |
| MOTOR RUN  |                | HT8SP81                 | HT8LP81              | UNCLAMP  |                | HT8SP91                 | HT8LP91              |
| MOTOR STOP   |                | HT8SP82                 | HT8LP82              | UP       |                | HT8SP35                 | HT8LP35              |

#### Standard



#### Jumbo



### For Selector Switch Operators

| Legend                                     | Color of Field | Standard Catalog Number | Jumbo Catalog Number | Legend                                       | Color of Field | Standard Catalog Number | Jumbo Catalog Number |
|--|----------------|-------------------------|----------------------|--|----------------|-------------------------|----------------------|
| <b>Two-Position—3/16 in High Lettering</b> |                |                         |                      | <b>Three-Position—3/16 in High Lettering</b> |                |                         |                      |
| FOR. REV.                                  | Black          | HT8SP38                 | HT8LP38              | AUTO OFF HAND                                | Black          | HT8SP49                 | HT8LP49              |
| HAND AUTO                                  |                | HT8SP39                 | HT8LP39              | FOR. OFF REV.                                |                | HT8SP50                 | HT8LP50              |
| HIGH LOW                                   |                | HT8SP40                 | HT8LP40              | FOR. SAFE REV.                               |                | HT8SP69                 | HT8LP69              |
| JOG RUN                                    |                | HT8SP41                 | HT8LP41              | HAND OFF AUTO                                |                | HT8SP51                 | HT8LP51              |
| MAN. AUTO                                  |                | HT8SP67                 | HT8LP67              | MAN. OFF AUTO                                |                | HT8SP68                 | HT8LP68              |
| OFF ON                                     |                | HT8SP42                 | HT8LP42              | OPEN OFF CLOSE                               |                | HT8SP53                 | HT8LP53              |
| OPEN CLOSE                                 |                | HT8SP43                 | HT8LP43              | RUN SAFE JOG                                 |                | HT8SP70                 | HT8LP70              |
| RUN JOG                                    |                | HT8SP44                 | HT8LP44              | UP OFF DOWN                                  |                | HT8SP54                 | HT8LP54              |
| SAFE RUN                                   |                | HT8SP45                 | HT8LP45              | ON STOP SAFE                                 |                | HT8SP71                 | HT8LP71              |
| START JOG                                  |                | HT8SP46                 | HT8LP46              |  |                |                         |                      |
| START STOP                                 |                | HT8SP47                 | HT8LP47              |  |                |                         |                      |
| UP DOWN                                    |                | HT8SP48                 | HT8LP48              |  |                |                         |                      |

### For Push-Pull Units

| Legend     | Color of Field | Standard ② Catalog Number | Jumbo ③ Catalog Number |
|------------|----------------|---------------------------|------------------------|
| ON/OFF     | Black          | HT8PP5                    | HT8R5                  |
| OPEN/CLOSE |                | HT8PP8                    | HT8R8                  |
| UP/DOWN    |                | HT8PP11                   | HT8R11                 |

### Blank Plastic Legend Plates—Square

| Legend | Color of Field | Standard Catalog Number | Jumbo Catalog Number |
|--------|----------------|-------------------------|----------------------|
| Black  | White/Silver   | HT8SP76                 | HT8LP76              |
| White  | Red/Black      | HT8SP77                 | HT8LP77              |

#### Notes

① For dimensions, see Page V7-T1-350.

② 3/32 in high lettering.

③ 1/8 in high lettering.

### Legend Plates with Non-Standard Markings

#### When Ordering Specify

- Catalog number of blank plate.
- Insert the following into Order Notes: legend, letter size and locations. See information below.

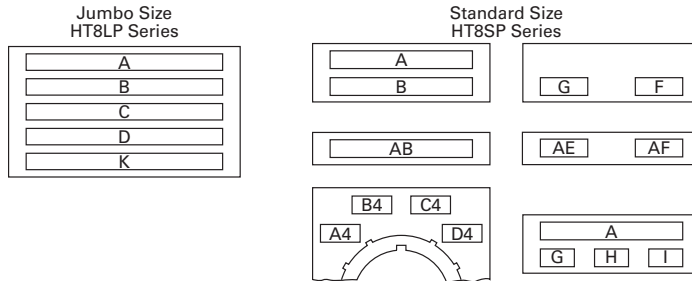
#### Ordering Example:

Catalog no.: **HT85P76STAMP**  
 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 Positions



### Blank Plastic Legend Plates for Non-Standard Markings—Plastic

| Legend | Color of Field | Standard Catalog Number | Jumbo Catalog Number |
|--------|----------------|-------------------------|----------------------|
| Black  | White/Silver   | HT8SP76STAMP            | HT8LP76STAMP         |
| White  | Red/Black      | HT8SP77STAMP            | HT8LP77STAMP         |

### Maximum Characters per Legend Plate and Approximate Dimensions

| Top (Aluminum and Plastic) | Style  | Character Size |                      | 1/8 in High     |                      | 3/16 in High    |                      |
|----------------------------|--------|----------------|----------------------|-----------------|----------------------|-----------------|----------------------|
|                            |        | 3/32 in High   | Number of Characters | Number of Lines | Number of Characters | Number of Lines | Number of Characters |
| Standard                   | Square | 2              | 18                   | 2               | 13                   | 1               | 9                    |
| Jumbo ①                    | Square | 5              | 23                   | 3               | 18                   | 2               | 12                   |

#### Note

① Can be used on top row only of any enclosure.

# 1

## Contact Blocks

### NO Contact Block



### NC Contact Block



### Contact Blocks ①②

| Description/Function  | Contact Type | Without Guard Catalog Number | Fingerproof Catalog Number |
|---|--------------|------------------------------|----------------------------|
| Standard normally open contact  | NO           | <b>HT8A</b>                  | <b>HT8AP</b>               |
| Standard normally closed contact  | NC           | <b>HT8B</b>                  | <b>HT8BP</b>               |
| Normally open early make contact will make circuit before standard NO contact. DC ratings do not apply. | NOEM         | <b>HT8C</b>                  | <b>HT8CP</b>               |
| Normally closed late break contact will open after standard NC contact. DC ratings do not apply.        | NCLB         | <b>HT8D</b>                  | <b>HT8DP</b>               |
| Logic level, low voltage NO contact. Gold plated contacts.  | NO           | <b>HT8E</b>                  | <b>HT8EP</b>               |

### Contact Block Location (Viewed from Rear) Suffix Codes ③④



| Left Side             | Right Side            |
|-----------------------|-----------------------|
| <b>A</b> = NO         | <b>A5</b> = NO        |
| <b>A2</b> = 2NO       | <b>A6</b> = 2NO       |
| <b>B1</b> = NC        | <b>B</b> = NC         |
| <b>B2</b> = 2NC       | <b>B6</b> = 2NC       |
| <b>C</b> = NOEM       | <b>C5</b> = NOEM      |
| <b>C2</b> = 2 NOEM    | <b>C6</b> = 2 NOEM    |
| <b>D1</b> = NCLB      | <b>D</b> = NCLB       |
| <b>D2</b> = 2 NCLB    | <b>D6</b> = 2 NCLB    |
| <b>E1</b> = NOEM-NCLB | <b>E5</b> = NOEM-NCLB |
| <b>F1</b> = NO and NC | <b>Q1</b> = NO and NC |
| <b>F4</b> = 1NO-1NC   |                       |

#### Notes

- ① See **Page V7-T1-346** for contact block electrical ratings.
- ② Maximum of four contact blocks per side or a total of eight contact blocks recommended.
- ③ Maximum of two contact blocks per side or a total of four contact blocks recommended.
- ④ Standard contact blocks without fingerproof protection.

### Replacement Parts

#### Replacement Bulbs and LEDs

|   | Voltage  | Color        | Catalog Number   |
|---|--|--------------|------------------|
| <b>Incandescent Bulb</b><br> | <b>Incandescent</b>  |              |                  |
|   | 6V   | —            | <b>HT8BULBV1</b> |
|   | 24V  | —            | <b>HT8BULBV3</b> |
|   | 120V   | —            | <b>HT8BULBV7</b> |
| <b>LED Bulb</b><br>          | <b>LED</b>   |              |                  |
|   | 6–12V<br>(For use with transformers with 6V secondary winding) | Red          | <b>HT8LEDRF1</b> |
|   |  | Green        | <b>HT8LEDGF1</b> |
|   |  | Amber/orange | <b>HT8LEDAF1</b> |
|   |  | White/clear  | <b>HT8LEDWF1</b> |
|   |  | Yellow       | <b>HT8LEDYF1</b> |
|   |  | Blue         | <b>HT8LEDBF1</b> |
|   | 24V  | Red          | <b>HT8LEDRF3</b> |
|   |  | Green        | <b>HT8LEDGF3</b> |
|   |  | Amber/orange | <b>HT8LEDAF3</b> |
|   |  | White/clear  | <b>HT8LEDWF3</b> |
|   |  | Yellow       | <b>HT8LEDYF3</b> |
|   |  | Blue         | <b>HT8LEDBF3</b> |
|   | 120V   | Red          | <b>HT8LEDRF7</b> |
|   |  | Green        | <b>HT8LEDGF7</b> |
|   |  | Amber/orange | <b>HT8LEDAF7</b> |
|   |  | White/clear  | <b>HT8LEDWF7</b> |
|   |  | Yellow       | <b>HT8LEDYF7</b> |
|   |  | Blue         | <b>HT8LEDBF7</b> |

#### Replacement Lenses

| Color  | Indicating Lights<br>Catalog Number | PresTest Lights<br>Illuminated Pushbuttons<br>Catalog Number |
|--------|-------------------------------------|--|
| Amber  | <b>HT8LA</b>                        | <b>HT8BA</b>   |
| Blue   | <b>HT8LB</b>                        | <b>HT8BB</b>   |
| Clear  | <b>HT8LC</b>                        | <b>HT8BC</b>   |
| Green  | <b>HT8LG</b>                        | <b>HT8BG</b>   |
| Red    | <b>HT8LR</b>                        | <b>HT8BR</b>   |
| White  | <b>HT8LW</b>                        | <b>HT8BW</b>   |
| Yellow | <b>HT8LY</b>                        | <b>HT8BY</b>   |

## Technical Data and Specifications

### HT800—Specifications

| Description                              | Specification  |
|--|--|
| <b>Mechanical Ratings</b>                |  |
| 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 <sup>6</sup> operations 6K ops/hr with 6 NO on left and 6 NC on right  |
| Selector switches                        | 250 x 10 <sup>3</sup> operations 3K ops/hr with 2 NO on left and 2 NC on right |
| Push-pull operators                      | 250 x 10 <sup>3</sup> operations 3K ops/hr with 6 NO on left and 6 NC on right |
| <b>Climatic Conditions</b>               |  |
| 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 at 60°C   |
| <b>Terminals</b>                         |  |
| Contact blocks                           | #6-32 posidrive saddle clamp type, 1 x 16 AWG to 2 x 14 AWG, 12 in-lbs max.    |
| Light units                              | #6-32 posidrive saddle clamp type, 1 x 22 AWG to 2 x 14 AWG, 7 in-lbs max.     |
| <b>Electrical Ratings</b>                |  |
| Standard contact blocks UL (NEMA) rating | See table below.   |
| Logic level contact block power rating   | 5V 1 mA (minimum)<br>28V 500 mA (maximum)                                      |

### Electrical Ratings—HT800 Standard Contact Blocks, UL Rating

| Description/Function  | Contact Type | AC  | DC     | Catalog Number |
|---|--------------|---|--------|----------------|
| Standard normally open contact  | NO           | A600 ①                                    | P600 ② | <b>HT8A</b>    |
| Standard normally closed contact  | NC           | A600 ①                                    | P600 ② | <b>HT8B</b>    |
| Normally open early make contact will make circuit before standard NO contact. DC ratings do not apply. | NOEM         | A600 ①                                    | —      | <b>HT8C</b>    |
| Normally closed late break contact will open after standard NC contact. DC ratings do not apply.        | NCLB         | A600 ①                                    | —      | <b>HT8D</b>    |
| Logic level, low voltage NO contact. Gold plated contacts.  | NO           | 5V 1 mA (minimum)<br>28V 500 mA (maximum) |        | <b>HT8E</b>    |

### UL A600 and P600 Ratings

| Description                                 | 50 Vac or 60 Hz |      |      |      | Vdc ③ |       |       |
|---|-----------------|------|------|------|-------|-------|-------|
|   | 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     |
| Voltamperes:                                |                 |      |      |      |       |       |       |
| Make and emerg. interrupting capacity       | 7200            | 7200 | 7200 | 7200 | 138 ④ | 138 ④ | 138 ④ |
| Normal load break                           | 720             | 720  | 720  | 720  | 138   | 138   | 138   |

#### Notes

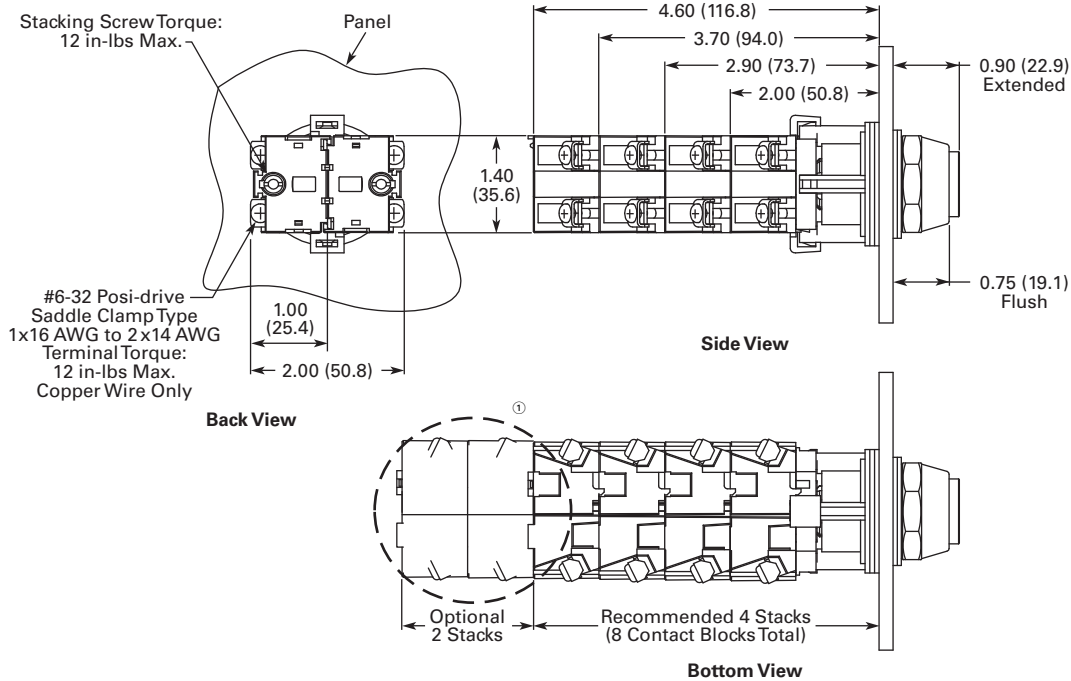
- ① Heavy-duty.
- ② Standard-duty.
- ③ DC ratings do not apply to NOEM (Normally Open Early Make) and NCLB (Normal Closed Late Break) contact blocks HT8C and HT8D.
- ④ Maximum make or break volt-amperes at 300V or less.

### Dimensions

Approximate Dimensions in Inches (mm)

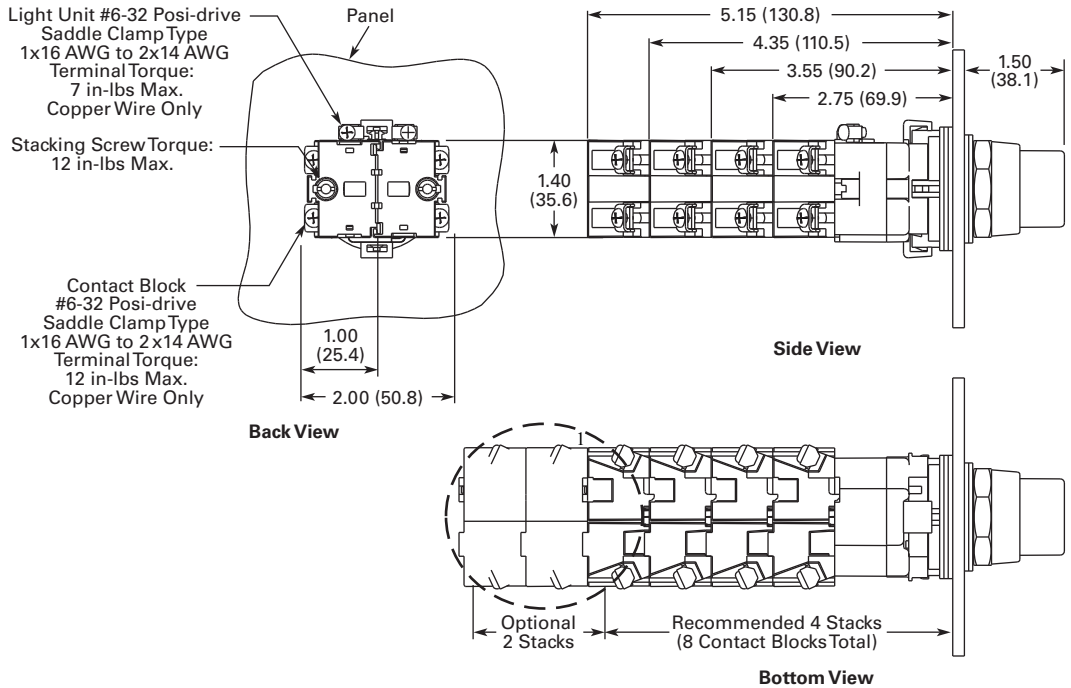
#### Momentary Pushbuttons—Non-Illuminated

Back, side and bottom views of pushbutton operator with attached contact blocks.



#### Illuminated Pushbuttons

Back, side and bottom views of pushbutton operator with attached contact blocks.



**Note**

① Recommended maximum of four tandem stacks of contact blocks behind operator. At users' discretion, two additional tandem stacks may be added.

# 1.11

## Pushbuttons and Indicating Lights

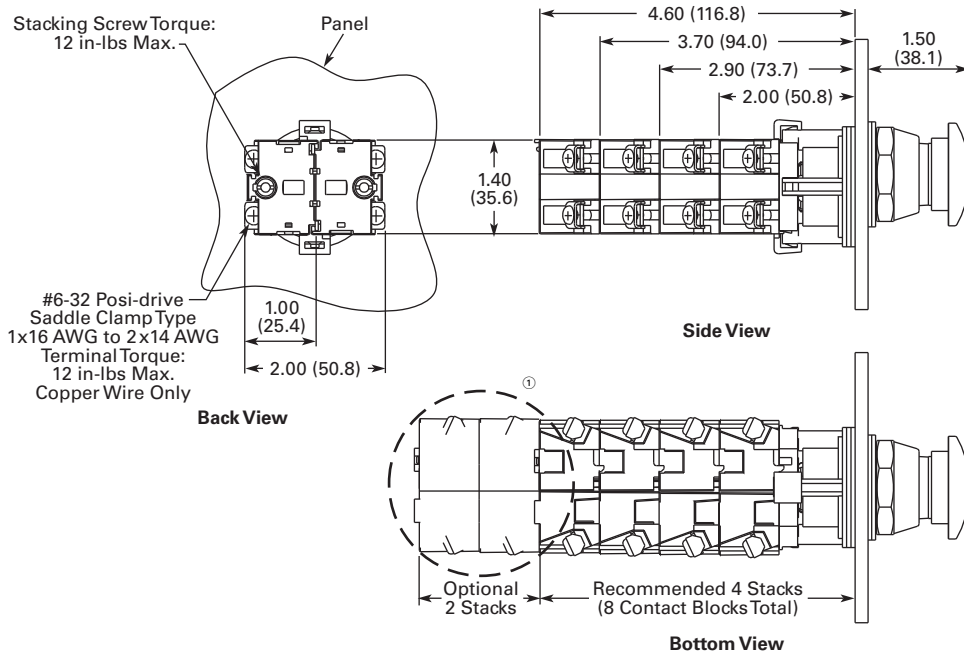
### 30.5 mm Watertight/Oiltight—HT800

1

Approximate Dimensions in Inches (mm)

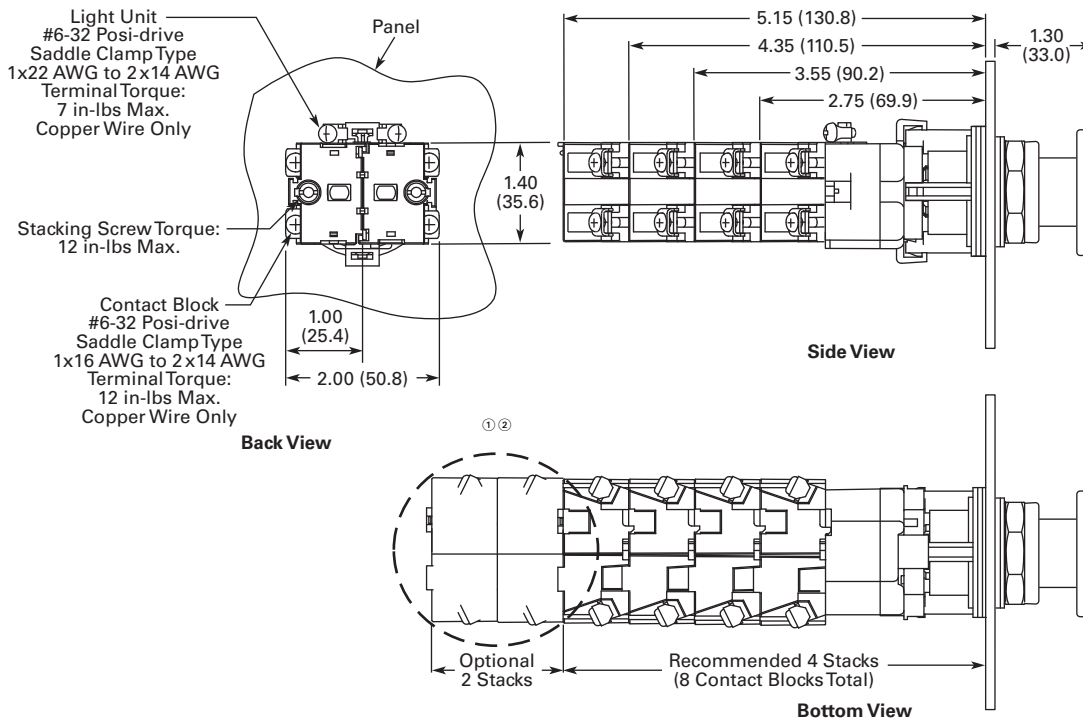
#### Mushroom Head Pushbuttons and Round Head MRH Push-Pull Operators

Back, side and bottom views of mushroom head operator with attached contact blocks.



#### Illuminated and Non-Illuminated Flat Head MRH Push-Pull Operators

Back, side and bottom views of push-pull operator with attached contact blocks.



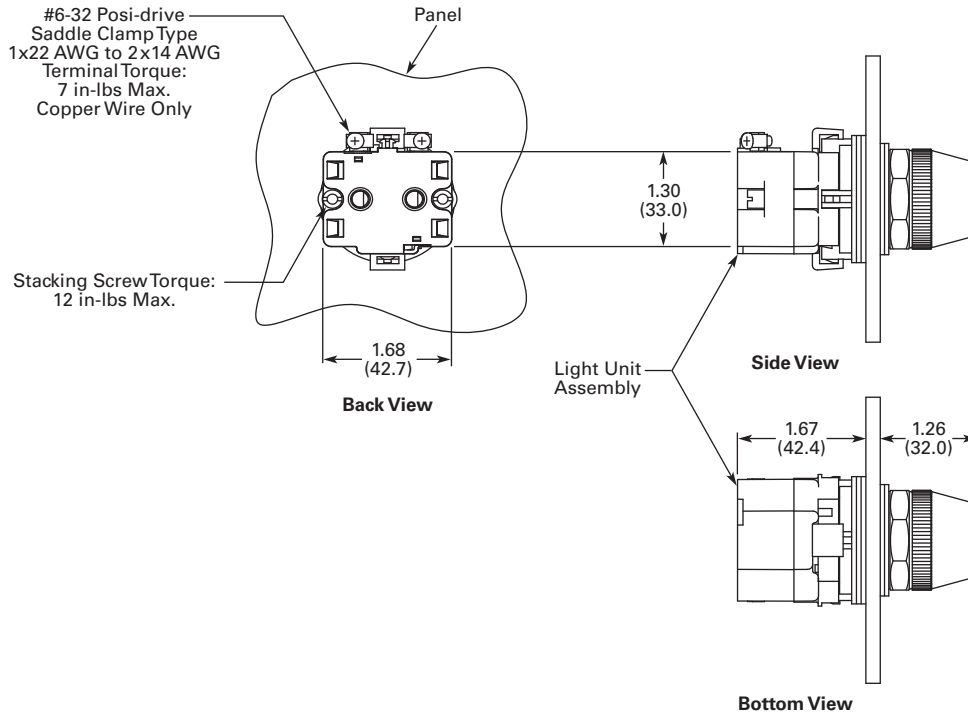
#### Notes

- ① Recommended maximum of four tandem stacks of contact blocks behind operator. At users' discretion, two additional tandem stacks may be added.
- ② Contact blocks mount directly to operator adaptor in non-illuminated version.

Approximate Dimensions in Inches (mm)

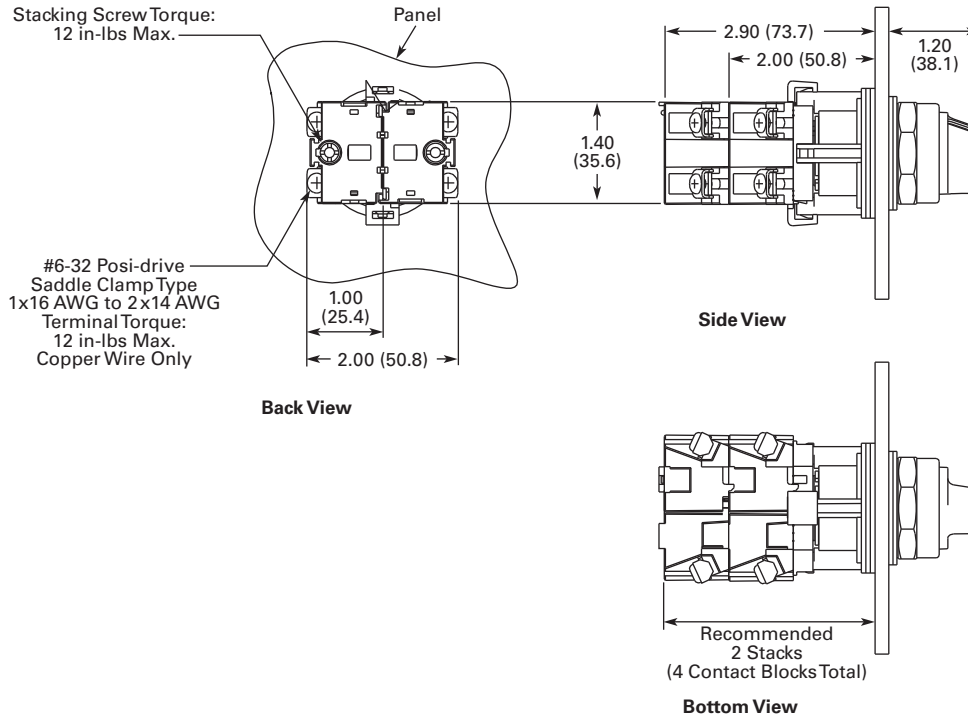
### Indicating Lights

Back, side and bottom views of indicating light operator with attached contact blocks.



### Selector Switches

Back, side and bottom views of selector switch operator with attached contact blocks.



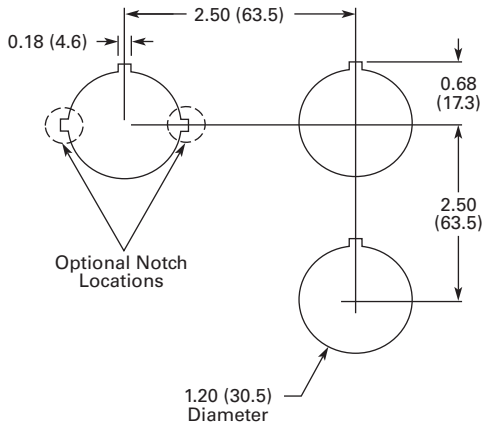


# 1.11

## Pushbuttons and Indicating Lights

30.5 mm Watertight/Oiltight—HT800

### 1 Mounting Matrix and Minimum Panel Spacing Requirements



### Legend Plates

