## NEMA Push Button Specifications

Catalog Numbers 800 T and 800 H

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## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

| Resource | Description |
| :--- | :--- |
| Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1 | Provides general guidelines for installing a Rockwell Automation industrial system. |
| Product Certifications website, http://www.ab.com | Provides declarations of conformity, certificates, and other certification details. |

You can view or download publications at http://www.rockwellautomation.com/literature/. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

## Specifications $\star$

| Electrical Ratings |  |
| :---: | :---: |
| Contact ratings | Refer to the contact ratings tables on page 10-4. |
| Dielectric strength | 2200 V for one minute, 1300V for one minute (Logic Reed) |
| Mechanical Ratings |  |
| Vibration | $10 . .2000 \mathrm{~Hz}, 1.52 \mathrm{~mm}$ displacement (peak-to-peak) max./ 10 G max. (except Logic Reed) |
| Shock | $1 / 2$ cycle sine wave for $11 \mathrm{~ms} \geq 25 \mathrm{~g}$ (contact fragility) and no damage at 100 g |
| Degree of protection | Type 1/4/12/13 (800T); Type 1/4/4X/12/13 (800H); EN/IEC 60529 IP66/65 |
| Mechanical design life cycles |  |
| (Momentary, non-illuminated, <br> flush and extended head), | 10,000,000 min. |
| Push buttons | 250,000 min. |
|  | 250,000 min. $\ddagger$ |
| Selector switches | 1,000,000 min. |
|  | 200,000 min. |
| Potentiometers | 25,000 min. |
| All other devices | 200,000 min. |
| Contact operation | Shallow, mini, and low-voltage contact blocks: Slow, double make and break Logic Reed and sealed switch contact blocks: Single break magnetic |
| Wire gauge/Terminal screw torque | \#18... 14 AWG (\#18... 10 Max Duty) / 6... $8 \mathrm{lb} \bullet$ in |
| Operators without contact blocks | Flush, extended button, standard mushroom, jumbo plastic mushroom: 2 lbs max. Jumbo and extended aluminum mushroom head: 3.95 lbs max. Maintained selector switch: $3.6 \mathrm{in} \bullet \mathrm{lb}$ max. |
| Spring return selector switches | $3.6 \mathrm{in} \bullet \mathrm{lb}$ to stop, $0.2 \mathrm{in} \bullet \mathrm{lb}$ to return |
| Illuminated push buttons and push-to-test pilot lights | 5 lb max. |
| 2-position push-pull | 8.0 lb max. push or pull |
| 3-position push-pull | 8 lb max. push to in position or pull to center position ( 15 lb max. pull to out position) |
| Twist-to-release or push-pull | 9 lbs max. push or pull 30 in•oz max. twist, 6 in $\bullet$ oz minimum return |
| Potentiometer | Rotational torque $3 \ldots .12$ in $\bullet \circ z$; stopping torque $12 \mathrm{in} \bullet \mathrm{lb}$ (minimum) |
| Contact blocks | 1 lb |
|  | 1 lb max. |
|  | 3 lb max. at 0.205 in . plunger travel |
|  | 1 lb max. |
|  | 1.4 lb max. |
|  | 1.4 lb max. |
| Self Monitoring | 1.6 lb |
| Environment |  |
| Temperature range | $-40 \ldots+131{ }^{\circ} \mathrm{F}\left(-40 \ldots+55^{\circ} \mathrm{C}\right)$ |
|  | $-40 \ldots+185^{\circ} \mathrm{F}\left(-40 \ldots+85^{\circ} \mathrm{C}\right)$ |
| Note: Operating temperatures below freezing are based on the absence of moisture and liquids. Consult your local Rockwell Automation sales office or Allen-Bradley distributor for use in lower temperature applications. |  |
| Humidity | $50 . .95 \%$ RH from $77 \ldots 140^{\circ} \mathrm{F}\left(25 \ldots 60^{\circ} \mathrm{C}\right)$ per Procedure IV of MIL-STD-810C, Method 507.1 cycling test |

* Performance Data - Performance data given in this publication is provided only as a guide for the user in determining suitability and do not constitute a performance warranty of any kind. Such data may represent the results of accelerated testing at elevated stress levels, and the user is responsible for correlating the data to actual application requirements. ALL WARRANTIES AS TO ACTUAL PERFORMANCE, WHETHER EXPRESS OR IMPLIED, ARE EXPRESSLY DISCLAIMED.
$\ddagger$ Illuminated Trigger Action E-stops are rated for $150,000 \mathrm{~min}$. mechanical operations when using Cat. No. 800TC-XD4S Self-Monitoring Contact Blocks (SMCBs).


## Standard Contact Ratings

Minimum: 24V, 24 mA
Maximum thermal continuous current $I^{\text {th }} 10 \mathrm{~A} \mathrm{AC/2.5}$ A DC. Bulletin 800T units with 800T-XA contacts have ratings as follows:

| Max. Opertnl. Volts $U_{e}$ | Utilization Category |  | Rated Operational Currents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | IEC | NEMA | Volts $U_{\text {e }}$ | Make | Break |
| AC 600 | AC-15 | A600 | $\begin{gathered} 120 \ldots 600 \\ 72 \ldots 120 \\ 24 \ldots 72 \end{gathered}$ | $\begin{gathered} 7200 \mathrm{VA} \\ 60 \mathrm{~A} \\ 60 \mathrm{~A} \end{gathered}$ | $\begin{gathered} \text { 720VA } \\ 720 \mathrm{VA} \\ 10 \mathrm{~A} \end{gathered}$ |
| DC 600 | DC-13 | Q600 | $\begin{gathered} 28 \ldots 600 \\ 24 \ldots 28 \star \end{gathered}$ | $\begin{aligned} & 69 \mathrm{VA} \\ & 2.5 \mathrm{~A} \end{aligned}$ |  |

* For applications below $17 \mathrm{~V} / 5 \mathrm{~mA}$, PenTUFF or Logic Reed contacts are recommended.
Electrical design life cycles: 1,000,000 (at max. rated load)


## Explosion-Protected Contact Ratings

| Max. OpertnI. <br> Volts $U_{\mathrm{e}}$ | Utilization Category |  | Rated Operational Currents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | IEC | NEMA | Volts $U_{\mathrm{e}}$ | Make | Break |
| AC 600 | AC-15 | A600 | $120 \ldots 600$ <br> $72 \ldots 120$ <br> $24 \ldots .72$ | 7200 VA <br> 60 A <br> 60 A | 720 VA |
|  |  |  |  |  |  |
| DC 600 | DC-13 | Q600 | $28 \ldots 600$ <br> $24 \ldots 28$ | 69 VA |  |
|  |  |  |  |  |  |

Maximum thermal continuous current lth $=10 \mathrm{~A}$
Minimum low energy switching load: 17 V DC, 5 mA
Electrical design life cycles: 1,000,000 (24V DC, 25 mA )
Vibration: $5 \mathrm{~g}, 0.7 \mathrm{~mm}$ peak-to-peak displacement, sine sweep
10... 2000 Hz / IEC 60068-2-6

Shock: 15 g (800H-TFRX_trigger action E-stops), 50 g (all other devices) / IEC 60068-2-27

## Sealed Switch Contact Ratings

Minimum: 5V, 1 mA
Maximum continuous current $I_{\text {th }} 5 \mathrm{~A}$. Bulletin 800T units have control circuit ratings with sealed switch contact blocks as follows:

| Max. OpertnI. <br> Volts $U_{\mathrm{e}}$ | Utilization Category |  | Rated Operational Currents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | AC-15 | NEMA | Volts $U_{\mathrm{e}}$ | Make | Break |
| DC 300 | DC-13 | P300 | $120 \ldots 600$ <br> $0 . \ldots 120$ | 3600 VA <br> 30 A | 360 VA <br> 3 A |
|  |  |  | $\ldots 24$ | 138 VA <br> 5.0 A |  |

Stackable Sealed Switch Contact Ratings
Minimum: $5 \mathrm{~V}, 10 \mathrm{~mA}$ (digital); $24 \mathrm{~V}, 1 \mathrm{~mA}$ (analog)
Maximum continuous current $I_{\mathrm{th}} 2.5 \mathrm{~A}$. Bulletin 800 T units have control circuit ratings with sealed switch contact blocks as follows:

| Max. OpertnI. Volts $U_{e}$ | Utilization Category |  | Rated Operational Currents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | IEC | NEMA | Volts $U_{\text {e }}$ | Make | Break |
| AC 300 | AC-15 | C300 | $\begin{gathered} 120 \ldots 300 \\ 0 . . .120 \end{gathered}$ | $\begin{gathered} 1800 \mathrm{VA} \\ 15 \mathrm{~A} \end{gathered}$ | $\begin{gathered} 180 \mathrm{VA} \\ 1.5 \mathrm{~A} \end{gathered}$ |
| DC 150 | DC-13 | Q150 | $\begin{gathered} 24 \ldots 150 \\ 0 \ldots .24 \end{gathered}$ |  |  |

## PenTUFFTM (Low Voltage) Contact Ratings

Minimum DC: 5V, 1 mA
Maximum thermal continuous current $I_{\text {th }} 2.5 \mathrm{~A} \mathrm{AC/1.0} \mathrm{~A} \mathrm{DC}$. 800T units with 800T-XAV contacts have ratings as follows:

| Max. Opertnl. <br> Volts $U_{e}$ | Utilization Category |  | Rated Operational Currents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | IEC | NEMA | Volts $U_{\mathrm{e}}$ | Make | Break |
| AC 300 | AC-15 | C300 | $120 \ldots 300$ <br> $0 \ldots . .120$ | 1800 VA <br> 15 A | 180 VA <br> 1.5 A |
| DC 150 | DC-13 | R150 | $24 \ldots 150$ <br> $0 \ldots .24$ | 28 VA |  |
| 1.0 A |  |  |  |  |  |

Snap Action Contact Ratings

| Max. Opertnl. <br> Volts $U_{e}$ | Contact Rating <br> Designation | Rated Operational Currents |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Make | Break |  |
| AC 300 | A300 | $120 \ldots 300$ | 7200 VA | 720 VA |
|  |  | $24 \ldots 72$ | 60 A | 10 A |
| DC 250 | - | $230 \ldots 250$ | 0.2 A |  |
|  |  | $115 \ldots 125$ | 0.4 A |  |

## MaxDuty Contact Rating

Maximum thermal continuous current $I_{\text {th }} 24 \mathrm{~A}$.
Pilot Duty - 120V AC, 12 A; 24V DC, 10 A
Motor Ratings - 120 V AC, 1.5 Hp ; 240 V AC, $3 \mathrm{Hp} ; 24 \mathrm{~V}$ DC,
10 A FLA/60 A LRA

Time Delay Contacts

| Max. Opertnl. <br> Volts $U_{e}$ | Contact Rating <br> Designation | Rated Operational Currents |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Make | Break |  |
| AC 120 | B150 | 120 | 3600 VA | 360VA |

Note: This device is not rated for DC applications.
Adjustment range: $0.5 \ldots 15 \mathrm{~s} \pm 25 \% I_{\text {th }}=5 \mathrm{~A}$

Materials Used in 800H Type 4X Operators
Thermoplastic Polyester
(Fiberglass Reinforced)

- Bushings
- Mounting Rings
- Sockets

Transparent Amorphous
Nylon

- Pilot light lens cap
- Illuminated button caps

Mineral Filled Nylon

- Trim washer


## Standards Compliance

 UL 508CCC

## Thermoplastic Polyester

- Non-illuminated button caps

Glass Filled Crystalline Nylon

- Thrust washer

Nitrile (Synthetic Rubber)

- Gaskets and internal seals


## Certifications

UL Listed
(File No. E14840, E10314
Guide No. NKCR, NOIV, NISD)
CSA Certified
(File No. LR1234, LR11924)
CSA C22.2, No. 14
CE Marked (EN/IEC 60947-5-1,
EN/IEC 60947-5-5,
EN ISO 13850)

## Logic Reed Contact Ratings

Minimum - DC: 5V, 1 mA
Maximum - DC: 30V, 0.06 A, AC: $150 \mathrm{~V}, 0.15 \mathrm{~A}$
Should only be used with resistive loads.
Electrical design life cycles: 200,000 (at max. rated load)

## DeviceNet Stations

Two-



Three-
Unit 800T -



Four-
Unit 800T -
b
$c$
$($ Hole One
$c+d)$
$c$
$($ Hole Two
$c+d)$

a

| Orientation |  |  |
| :---: | :---: | :---: |
| Code | Description |  |
| V | Vertical |  |
| H | Horizontal |  |
| b |  |  |
| Enclosure Style |  |  |
| $\begin{array}{c}\text { Grey } \\ \text { Code }\end{array}$ | Description |  | \(\left.\begin{array}{c}Yellow <br>

Code\end{array}\right]\)

C

| Operator Types |  |
| :---: | :---: |
| Code | Description |
| A | Non-illuminated flush (800T-A*) |
| B | Non-illuminated extended (800T-B*) |
| C | Non-illuminated mushroom (800T-D*) |
| D | Illuminated mushroom (800T-QM*) |
| E | Illuminated extended (800T-QB*) |
| F | Illuminated guarded (800T-QA*) |
| G | 2-position SS maintained (800T-H2*) |
| H | 3 -position SS maintained (8007-J2*) |
| J | Enhanced pilot light (800T-QH*) |
| K | Non-illuminated 2-position push/pull (800T-FX*)§ |
| L | Non-illuminated push/pull twist-to-release (800T-FXT*)§ |
| M | Illuminated 2-position push/pull (800T-FXQH*) |
| N | 2-position key SS (800T-H33*) $\ddagger$ |
| P | 3-position key SS (800T-J44*)才 |
| Q | 2-position SS spring return from right (800T-H5*) |
| R | 3-position SS spring return from all |
| T | Illuminated 2-position SS maintained (800T-24H* ${ }^{*}$ ) |
| U | Illuminated 3-position SS maintained (800T-24J* ${ }^{*}$ ) |
| v | Non-illuminated 3-position push/pull (800T-FXM*) |
| W | Potentiometer ${ }^{\text {a }}$ |

$\ddagger$ Operator Types N and P from Table c must choose Color/Text option X from Table d.
§ Operator Types K and L from Table c may be used as Emergency Stops. To be valid as an E-Stop, the operators must use Color/Text option C from Table d and it must be placed in the last hole position in the enclosure. An E-Stop connector also must be chosen from Table e.

* Enclosure Style option G from Table b can only select one operator from Table c. Valid options are K and L with E-Stop.
$\Delta$ External I/O Versions F, L, M, Q, and U receive only one contact block for the external E-Stop string. These connectors are rated to 3 A . If more than 3 A of current is needed or if there are two E-Stop strings, use External I/O Versions G, N, P, R, and W. These versions receive two contact blocks. This allows for 6 A of switching or for two E-Stop strings.
- This is an 8 -in/4-out device. 2 -in/1-out is assigned to each hole position in the enclosure. If a 2 -hole enclosure is selected, 4-in and 2-out are assigned internally and up to 4 unassigned I/O points can be assigned to external connectors. This device contains up to two physical external I/O connectors. The " + " symbol in the Description field of Table e indicates that two external connectors exist. If an E-Stop connector is used, 2 unassigned I/O points can be assigned to the other connector.
^Available for certain applications, please contact your local Allen-Bradley distributor.

2-Position Red Trigger Action Twist-to-Release, Non-Illuminated

- Tamper resistant - front-of-panel mounting and non-removable operator head
- Compliant with global E-stop standards, including EN ISO 13850 and EN 60947-5-5



Cat. No. 800H-TFRXT6
a

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type 4/13 |
| H | Plastic, Type 4/4X/13 |

$b$

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

C

| Head Type |  |  |
| :---: | :---: | :---: |
| 800T |  | 800 H |
| Type | Description | Type |
| $4 / 13$ |  | $4 / 4 \mathrm{X} / 13$ |
|  |  | Code |
| Code | Standard $(45 \mathrm{~mm})$ mushroom head | TFRX |
| TFX | Jumbo $(60 \mathrm{~mm})$ mushroom head | TFRXJ |
| TFXJ | Jumbo $(60 \mathrm{~mm})$ mushroom head with "E-STOP" | TFRXJE |
| TFXJE | 45 mm mushroom head key release | - |
| TFXK | 63 mm anodized aluminum head | - |
| TFXL | 63 mm anodized aluminum head with "E-STOP" | - |
| TFXLE |  |  |

d

| Release Function |  |
| :---: | :---: |
| Code | Color |
| Blank | Key release $\uparrow$ |
| T | Twist release |


| Contact Block(s) |  |  |  |
| :---: | :---: | :---: | :---: |
| Code | Operator Position |  | Description |
|  |  | $\stackrel{\square}{\leftrightarrows}$ |  |
|  | Out | In |  |
| Blank | - | - | No contacts on operator |
|  |  |  | dard |
| D2 | X | 0 | 1 N.C. |
| A | $\begin{aligned} & \mathrm{O} \\ & \mathrm{x} \end{aligned}$ | $\begin{aligned} & \mathrm{X} \\ & 0 \end{aligned}$ | 1 N.O. - 1 N.C. |
| A4 | $\begin{aligned} & \mathrm{X} \\ & \mathrm{X} \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | 2 N.C. |
| PenTUFF (Low Voltage) |  |  |  |
| D2V | X | 0 | 1 N.C. |
| AV | $\begin{aligned} & \mathrm{O} \\ & \mathrm{x} \end{aligned}$ | $\begin{aligned} & \mathrm{X} \\ & 0 \end{aligned}$ | 1 N.O. - 1 N.C. |

Note: X = Closed/O = Open
${ }_{\wedge}$ Configurable only with FXK head type.

2-Position Red Trigger Action Twist-to-Release, Illuminated

- Tamper resistant - front-of-panel mounting and non-removable operator head
- Compliant with global E-stop standards, including EN ISO 13850 and EN 60947-5-5
- LED illumination provided as standard

a

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type 4/13 |
| H | Plastic, Type 4/4X/13 |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |


| Target |  |  |
| :---: | :---: | :---: |
| Contact | Contact Blocks |  |
| N.O. | Description |  |
| N.C./ |  |  |
| N.C.L.B./ |  |  |
| S.M.C.B. |  |  |$\quad$ No contacts

Note: $\mathrm{X}=$ Closed/O = Open

| Illumination Option |  |
| :---: | :---: |
| Code | Description |
| PH | Transformer with LED lamp |
| QH | Universal with LED lamp |

e

| Voltage |  |  |
| :---: | :---: | :---: |
| Transformer |  |  |
| Code | Description |  |
| 16 | $120 \mathrm{~V} \mathrm{AC} 50 / 60 \mathrm{~Hz}$ |  |
| 26 | $240 \mathrm{~V} \mathrm{AC} 50 / 60 \mathrm{~Hz}$ |  |
| 46 | $480 \mathrm{~V} \mathrm{AC} 50 / 60 \mathrm{~Hz}$ |  |
| 56 | $600 \mathrm{~V} \mathrm{AC} 50 / 60 \mathrm{~Hz}$ |  |
| Universal |  |  |
| Code | Description |  |
| 2 | $12 \ldots 130 \mathrm{~V} \mathrm{AC/DC}$ |  |

## Momentary Contact Push Button Devices, Non-Illuminated




Extended Head Unit
Cat. No. 800T-B6A

Booted Unit Cat. No. 800H-R2A


$$
800 \frac{\mathrm{~T}}{a} \frac{-\mathrm{A}}{b} \frac{1}{d}-\frac{\mathrm{A}}{f}
$$



Bootless Flush Head Unit Cat. No. 800H-AR1A

| a |  |
| :---: | :---: |
| Protection Rating |  |
| Code | Description |
| T | Metal, Type 4/13 |
| H | Plastic, Type 4/4X/13 |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

C

| Operator Type |  |  |
| :---: | :---: | :---: |
| 800 T <br> Type <br> $4 / 13$ | Description | 800 H <br> Type <br> $4 / 4 \mathrm{X} / 13$ |
|  |  | Code |
| Code |  | AR |
| A | Flush head | BR |
| B | Extended head | BR |
| D | Mushroom head | DR |
| DX | Mushroom head <br> less color cap | DRX |
| - | Bootless <br> guarded head | GR |
| - | Booted head | R $\star$ |

d

| Color Cap |  |
| :---: | :---: |
| Code | Description |
| Blank | Used only when ordering <br> Operator Type DX/DRX |
| 1 | Green |
| 2 | Black |
| 3 | Orange $\ddagger$ |


| $d$ (cont'd) |  |
| :---: | :---: |
| Color Cap |  |
| Code | Description |
| 4 | Grey $\ddagger$ |
| 5 | White $\ddagger$ |
| 6 | Red |
| 7 | Blue |
| 9 | Yellow |

e

| Special Mushroom Head |  |
| :---: | :---: |
| Code | Description |
| $J_{*} *$ | Jumbo mushroom head - <br> plastic |
| L* | Jumbo mushroom head - <br> metal |

Note: Special mushroom head options only apply to mushroom head operator type code D/DR (Table c).

| $\boldsymbol{f}$ |  |
| :---: | :---: |
| Code | Description |
| Blank | No contacts |
|  |  |
| D1 | Standard |
| D2 | 1 N.O. |
| D3 | 1 N.C. |
| D4 | 1 N.O.E.M. |
| D5 | 1 N.O. (Mini) |
| D6 | 1 N.C. (Mini) |
| A1 | 1 N.C.L.B. -1 N.O. |
| A2 | 2 N.O.§ |
| A4 | 2 N.C. |
| A7 | 1 N.C.L.B. - 1 N.C. |
| A | 1 N.O. - 1 N.C. |
| B | 2 N.O. - 2 N.C. |



|  | $f$ (cont'd) |
| :---: | :---: |
| Contact Block(s) |  |
| Code | Description |
| PenTUFF (Low Voltage) |  |
| D1V | 1 N.O. |
| D2V | 1 N.C. |
| D3V | 1 N.O.E.M. |
| D4V | 1 N.C.L.B. |
| AV | 1 N.O. - 1 N.C. |
| BV | 2 N.O. - 2 N.C. |
| Time Delay |  |
| T | 1 N.O. <br> Depress close, delayed opening |
| S | 1 N.C. <br> Depress open, delayed closure |
| Snap Action |  |
| M | 1 N.O. - 1 N.C. |
| N | 2 N.O. - 2 N.C. |
| Class 1, Div. 2 |  |
| Logic Reed |  |
| D1R | 1 N.O. |
| D2R | 1 N.C. |
| A2R | 2 N.O.§ |
| A4R | 2 N.C. |
| AR | 1 N.O. - 1 N.C. |
| BR | 2 N.O. - 2 N.C. |

$f$ (cont'd)

| Contact Block(s) |  |
| :---: | :---: |
| Code | Description |
| Class 1, Div. 2 |  |
| Sealed Switch |  |
| D1P | 1 N.O. |
| D2P | 1 N.C. |
| AP | 1 N.O. - 1 N.C. |
| BP | 2 N.O. - 2 N.C |
| Stackable Sealed Switch |  |
| D1Y | 1 N.O. |
| D2Y | 1 N.C. |
| A2Y | 2 N.O. |
| A4Y | 2 N.C. |
| AY | 1 N.O. - 1 N.C. |
| BY | 2 N.O. - 2 N.C |


| Time Delay Contacts |
| :---: |
| Series C field installable kits can |
| only be used with Series T or later |
| operators. Adjustable range of 0.5 |
| to $15 \mathrm{~s}+25 \%$. Maximum |
| continuous current Ith 5 A . |


| Snap Action Contacts |
| :---: |
| Snap-action contacts feature a |
| quick make, quick break snap- |
| action mechanism that is only |
| available on factory assembled |
| units. Maximum continuous current |
| $I_{\mathrm{th}} 10 \mathrm{~A}$. |

« Underlying operators are extended head. Boot material is chlorosulfonated polyethylene.
$\ddagger$ Not available for booted operators.
§ A2 and A2R contact blocks cannot be stacked upon, but can stack on other contact blocks.

* Jumbo mushroom heads not available in white color.

Momentary Contact Push Button Devices, Illuminated

Extended Head Without Guard Cat. No. 800T-PB16R

Extended Head without Guard
Cat. No. 800H-PRB16R
$800 \frac{\mathrm{~T}}{\mathrm{a}}$

$\xrightarrow[e]{\mathrm{H}}$

a

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type 4/13 |
| H | Plastic, Type 4/4X/13 |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

c

| Power Module Type |  |  |
| :---: | :---: | :---: |
| 800T <br> Type <br> $4 / 13$ | Description | 800 H <br> Type <br> 4/4X/13 |
| Code |  | Code |
| P | Transformer <br> (or dual input) | PR |
| Q | Full voltage/ <br> Universal | QR |

$d$

| Head Type |  |
| :---: | :---: |
| Code | Description |
| A | Extended head with guard |
| B | Extended head <br> without guard |
| M | Mushroom |
| MJ | Jumbo mushroom |


| Illumination Options |  |
| :---: | :---: |
| Code | Description |
| Blank | Incandescent |
| H | LED |
| Dual Input |  |
| D | Diode type§ |
| T | Transformer - relay type |
| TH | Transformer - relay type LED |
| $f$ |  |
| Voltage |  |
| Transformer |  |
| Code | Description |
| 16 | 120 V AC, $50 / 60 \mathrm{~Hz}$ |
| 26 | 240 V AC, $50 / 60 \mathrm{~Hz}$ |
| 46 | 480 V AC, $50 / 60 \mathrm{~Hz}$ |
| 56 | 600 V AC, $50 / 60 \mathrm{~Hz}$ |
| Full Voltage - Incandescent |  |
| 12 | 12V AC/DC |
| 24 | 24V AC/DC |
| 48 | 48V AC/DC |
| 10 | 120 V AC/DC |
| 20 | 240V AC/DC |
| Universal - LED |  |
| 2 | 12...130V AC/DC |
| Dual Input |  |
| 16 | 120 V AC |
| 24 | 24V AC/DC * |


$h$

| Lens Color |  |
| :---: | :---: |
| Code | Description |
| Blank | No lens with standard <br> contacts 1 N.O. - 1 N.C. |
| X | No lens if ordering any <br> contacts other than <br> standard 1 N.O. - 1 N.C. |
| A | Amber |
| B | Blue |
| C | Clear |
| G | Green |
| R | Red |
| W | White |


| Contact Block(s) |  |
| :---: | :---: |
| Code | Description |
| $X$ | No contacts |
| Standard |  |
| Blank | 1 N.O. - 1 N.C. |
| D1 | 1 N.O. |
| PenTUFF (Low Voltage) |  |
| AV | 1 N.O. - 1 N.C. |
| Class 1, Div. 2 |  |
| Logic Reed |  |
| AR | 1 N.O. - 1 N.C. |
| Sealed Switch |  |
| AP | 1 N.O. - 1 N.C. |
| Stackable Sealed Switch |  |
| AY | 1 N.O. - 1 N.C. |

§ Diode type dual input provides circuit isolation via opposing diodes. Not recommended for use with solid-state outputs.

- Dual input diode only.

Momentary Contact Push Button Devices, Non-Illuminated - With Two-Color Molded Legend Caps


Cat. No. 800T-A00 with Cat. No. 800T-LC103W installed

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| $T$ | Metal, Type 4/13 |
| $H$ | Plastic, Type 4/4X/13 |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

c

| Operator Type |  |  |
| :---: | :---: | :---: |
| 800 T |  | 800 H |
| Type |  | Type |
| $4 / 13$ | Description | $4 / 4 \mathrm{X} / 13$ |
|  |  | Code |
| Code |  | AR |
| A | Flush head | BR |
| B | Extended head | Br |



| d |  |  |  |
| :---: | :---: | :---: | :---: |
| Cap Text/Color |  |  |  |
| Code | Text | Color |  |
|  |  | Cap | Text |
| 101W | I | Green | White |
| 103W | START |  |  |
| 105W | ON |  |  |
| 121W | START / I |  |  |
| 202W | $\bigcirc$ | Black | White |
| 204W | STOP |  |  |
| 207W | RESET |  |  |
| 208W | $\uparrow$ |  |  |
| 209W | FORWARD |  |  |
| 210W | REVERSE |  |  |
| 212W | JOG |  |  |
| 213W | UP |  |  |
| 214W | DOWN |  |  |
| 215W | RAISE |  |  |
| 216W | LOWER |  |  |
| 217W | IN |  |  |
| 218 W | OUT |  |  |
| 219W | HIGH |  |  |
| 220W | LOW |  |  |
| 222W | STOP / O |  |  |
| 501B | I | White | Black |
| 503B | START |  |  |
| 508B | $\uparrow$ |  |  |
| 521B | START / I |  |  |
| 602 W | 0 | Red | White |
| 604 W | STOP |  |  |
| 606 W | OFF |  |  |
| 622W | STOP / O |  |  |
| 707W | RESET | Blue | White |
| 711W | R |  |  |


| Contact Block(s) |  |
| :---: | :---: |
| Code | Description |
| Blank | No contacts |
| Standard |  |
| D1 | 1 N.O. |
| D2 | 1 N.C. |
| D3 | 1 N.O.E.M. |
| D4 | 1 N.C.L.B. |
| D5 | 1 N.O. (Mini) |
| D6 | 1 N.C. (Mini) |
| A1 | 1 N.C.L.B. - 1 N.O. |
| A2 | 2 N.O.§ |
| A4 | 2 N.C. |
| A7 | 1 N.C.L.B. - 1 N.C. |
| A | 1 N.O. - 1 N.C. |
| B | 2 N.O. - 2 N.C. |
| Class 1, Div. 2 |  |
| Sealed Switch |  |
| D1P | 1 N.O. |
| D2P | 1 N.C. |
| AP | 1 N.O. - 1 N.C. |
| BP | 2 N.O. - 2 N.C |
| Stackable Sealed Switch |  |
| D1Y | 1 N.O. |
| D2Y | 1 N.C. |
| A2Y | 2 N.O. |
| A4Y | 2 N.C. |
| AY | 1 N.O. - 1 N.C. |
| BY | 2 N.O. - 2 N.C |


| Contact Block(s) |  |
| :---: | :---: |
| Code | Description |
| PenTUFF (Low Voltage) |  |
| D1V | 1 N.O. |
| D2V | 1 N.C. |
| D3V | 1 N.O.E.M. |
| D4V | 1 N.C.L.B. |
| AV | 1 N.O. - 1 N.C. |
| BV | 2 N.O. - 2 N.C. |
| Time Delay |  |
| T | 1 N.O. Depress close, delayed opening |
| S | 1 N.C. Depress open, delayed closure |
| Snap Action |  |
| M | 1 N.O. - 1 N.C. |
| N | 2 N.O. - 2 N.C. |
| Class 1, Div. 2 |  |
| Logic Reed |  |
| D1R | 1 N.O. |
| D2R | 1 N.C. |
| A2R | 2 N.O.§ |
| A4R | 2 N.C. |
| AR | 1 N.O. - 1 N.C. |
| BR | 2 N.O. - 2 N.C. |

§ A2 and A2R contact blocks cannot be stacked upon, but can stack upon other contact blocks.

2-Position Selector Switch Devices, Non-Illuminated


$$
800 \frac{\mathrm{~T}}{a} \frac{}{b}-\frac{\mathrm{HA}}{c} \frac{2}{d} \frac{\mathrm{~A}}{e}
$$

a

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type 4/13 |
| H | Plastic, Type 4/4X/13 |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

C

| Knob Insert Colors |  |  |
| :---: | :---: | :---: |
| 800T |  | 800 H |
| Type | Description | Type |
| $4 / 13$ |  | 4/4X/13 |
|  |  | Code |
| Code | White | HR |
| H | HX | Packet of colored inserts $\ddagger$ | HRX.


| Operator Type and Function |  |
| :---: | :---: |
| Standard Knob |  |
| Code | Operator Function |
| 2 | Maintained |
| 4 | Spring return from left§ |
| 5 | Spring return from right |
| Knob Lever $\%$ |  |
| Code | Operator Function |
| 17 | Maintained |
| 18 | Spring return from left§ |
| 19 | Spring return from right |
| Metal Wing Lever\& |  |
| Code | Operator Function |
| 11 | Maintained |
| 15 | Spring return from left§ |
| 16 | Spring return from right |
| Coin Slot* |  |
| Code | Operator Function |
| 6 | Maintained |
| 7 | Spring return from left |
| 8 | Spring return from right |

[^0]

| Contact Block(s) |  |  |  |
| :---: | :---: | :---: | :---: |
| Code | Description |  |  |
|  | Contact Configuration | 2-Position |  |
|  |  | 5 |  |
| Blank | No contacts | - | - |
| Standard |  |  |  |
| D1 | 1 N.O. | 0 | X |
| D2 | 1 N.C. | X | 0 |
| A | 1 N.O. - 1 N.C. | 0 | X |
|  |  | X | 0 |
| B | 2 N.O. - 2 N.C. | 0 | X |
|  |  | X | 0 |
|  |  | 0 | X |
|  |  | X | 0 |
| Max Duty (Horsepower Rated) $\Delta$ |  |  |  |
| D1M | 1 N.O. |  |  |
| D2M | 1 N.C. |  |  |
| PenTUFF (Low Voltage) $\Delta$ |  |  |  |
| D1V | 1 N.O. |  |  |
| D2V | 1 N.C. |  |  |
| AV | 1 N.O. - 1 N.C. |  |  |
| BV | 2 N.O. - 2 N.C. |  |  |
| Class1, Div. 2 |  |  |  |
| Logic Reed $\Delta$ |  |  |  |
| D1R | 1 N.O. |  |  |
| D2R | 1 N.C. |  |  |
| AR | 1 N.O. - 1 N.C. |  |  |
| BR | 2 N.O. - 2 N.C. |  |  |
| Sealed Switch $\triangle$ |  |  |  |
| D1P | 1 N.O. |  |  |
| D2P | 1 N.C. |  |  |
| AP | 1 N.O. - 1 N.C. |  |  |
| BP | 2 N.O. - 2 N.C. |  |  |
| Stackable Sealed Switch $\Delta$ |  |  |  |
| D1Y | 1 N.O. |  |  |
| D2Y | 1 N.C. |  |  |
| AY | 1 N.O. - 1 N.C. |  |  |
| BY | 2 N.O. - 2 N.C. |  |  |

2-Position Selector Switch Devices, Non-Illuminated (Bul. 800T only)


2-Position Cylinder Lock Operator Cat. No. 800T-H33A

a

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type 4/13 |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

C

| Key Removal Position |  |
| :---: | :---: |
| Maintained |  |
| Code | Operator Function |
| H31 | Key removal - left |
| H32 | Key removal - right |
| H33 | Key removal - both |
|  |  |
| Code | Spring Return From Left |
| H42 | Operator Function |
| Key removal - right $\star$ |  |
| Code | Spring Return From Right |
| H48 | Operator Function |

* Target tables are reversed from those shown.
\& Contact target tables same as those listed for standard and PenTUFF contact blocks.
$\Delta$ Device supplied with 2 keys. Replacement key part no. for standard D018 key is X-181170. Consult your local Rockwell Automation sales office or Allen-Bradley distributor for additional replacement key numbers.
d

| Key Options for Cylinder Locks $\Delta$ |  |  |  |
| :---: | :---: | :---: | :---: |
| Code | T Series <br> Key No. | Code | T Series <br> Key No. |
| Blank | D018 (Std. Key) | 15 | T112 |
| 03 | D020 | 16 | T115 |
| 04 | D025 | 17 | T324 |
| 05 | D335 | 18 | T382 |
| 06 | D429 | 19 | T404 |
| 07 | D461 | 20 | T171 |
| 08 | D111 | 21 | T484 |
| 09 | D587 | 22 | T547 |
| 10 | D682 | 23 | T569 |
| 11 | D713 | 24 | T692 |
| 12 | D900 | 25 | T752 |
| 13 | D992 | 26 | T178 |
| 14 | D118 | - | - |


| Contact Block(s) |  |  |  |
| :---: | :---: | :---: | :---: |
| Code | Description |  |  |
|  | Contact Configuration | 2-Position |  |
|  |  | $\$$ | $\square$ |
| Blank | No contacts | - | - |
| Standard |  |  |  |
| D1 | 1 N.O. | 0 | X |
| D2 | 1 N.C. | X | O |
| A | 1 N.O. - 1 N.C. | 0 | X |
|  |  | X | O |
| B | 2 N.O. - 2 N.C. | 0 | X |
|  |  | X | O |
|  |  | 0 | X |
|  |  | X | O |
| Max Duty (Horsepower Rated) |  |  |  |
| D1M | 1 N.O. |  |  |
| D2M | 1 N.C. |  |  |
| PenTUFF (Low Voltage) |  |  |  |
| D1V | 1 N.O. |  |  |
| D2V | 1 N.C. |  |  |
| AV | 1 N.O. - 1 N.C. |  |  |
| BV | 2 N.O. - 2 N.C. |  |  |
| Class1, Div. 2 |  |  |  |
| Logic Reed* |  |  |  |
| D1R | 1 N.O. |  |  |
| D2R | 1 N.C. |  |  |
| AR | 1 N.O. - 1 N.C. |  |  |
| BR | 2 N.O. - 2 N.C. |  |  |
| Sealed Switch ${ }^{\circ}$ |  |  |  |
| D1P | 1 N.O. |  |  |
| D2P | 1 N.C. |  |  |
| AP | 1 N.O. - 1 N.C. |  |  |
| BP | 2 N.O. - 2 N.C. |  |  |
| Stackable Sealed Switch* |  |  |  |
| D1Y | 1 N.O. |  |  |
| D2Y | 1 N.C. |  |  |
| AY | 1 N.O. - 1 N.C. |  |  |
| BY | 2 N.O. - 2 N.C. |  |  |

3-Position Selector Switch Devices, Non-Illuminated


Table 1. Cam and Contact Block Functionality Table

| Contact Block Suffix Code | Contact Block Side | $\begin{aligned} & 0 \\ & \stackrel{0}{\bar{u}} \\ & 0 . \overline{0} \end{aligned}$ | Cam Codes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | KB7 <br> (Std.) |  |  | KA1 |  |  | KA7 |  |  | KC1 |  |  | KC7 |  |  | KD7 |  |  | KE7 |  |  | KQ1 |  |  | KQ7 |  |  | KR1 |  |  | KR7 |  |  | KT1 |  |  | KT7 |  |  | KU7 |  |  |
|  | White | A | X | O | O | X | O | O | 0 | O | X | O | O | X | X | O | O | 0 | 0 | X | X |  | 0 | X | 0 | X | X | 0 | X | X | 0 | X | X |  | X | 0 | 0 | X | X | 0 | 0 | X | O | 0 |
|  |  | B | 0 | 0 | X | 0 | X | 0 | 0 | X | 0 | 0 | X | 0 | O | X | 0 | 0 | X | 0 | 0 | X | X | 0 | X | 0 | 0 | X | 0 | 0 | X | 0 | O |  | 0 | X | 0 | 0 | 0 | 0 | X | 0 | X | 0 |
|  | Black | A | X | 0 | 0 | X | O | 0 | 0 | O | X | 0 | 0 | X | X | 0 | 0 | X | 0 | 0 | 0 |  | X | 0 | 0 | X | X | 0 | 0 | 0 | 0 | X | X |  | 0 | 0 | 0 | X | X | 0 | 0 | 0 | O | X |
|  |  | B | O | O | X | O | X | O | 0 | X | 0 | X | 0 | O | O | O | X | 0 | X | O | X | X | 0 | O | X | O | 0 | X | 0 | X | X | 0 | 0 |  | X | X | X | O | 0 | X | X | X | X | 0 |
|  | White | A | X | O | O | X | O | 0 | 0 | O | X | 0 | 0 | X | X | O | 0 | 0 | 0 | X | X |  | 0 | X | 0 | X | X | 0 | X | X | 0 | X | X |  | X | 0 | O | X | X | 0 | 0 | X | O | 0 |
|  |  | B | O | 0 | X | O | X | 0 | O | X | 0 | 0 | X | 0 | O | X | 0 | 0 | X | 0 | 0 |  | X | 0 | X | 0 | 0 | X | 0 | 0 | X | 0 | 0 |  | 0 | X | 0 | O | 0 | 0 | X | 0 | X | 0 |
|  | Blac | A | X | O | O | X | O | O | O | O | X | 0 | 0 | X | X | O | O | X | 0 | 0 | 0 |  | X | O | 0 | X | X | 0 | 0 | 0 | 0 | X | X |  | 0 | 0 | O | X | X | 0 | 0 | 0 | O | X |
|  |  | B | O | O | X | O | X | 0 | 0 | X | 0 | X | 0 | 0 | $\bigcirc$ | 0 | X | 0 | X | 0 | X |  | 0 | 0 | X | 0 | 0 | $\times$ | 0 | X | X | 0 | 0 | X | X | X | X | 0 | 0 | X | X | X | X | 0 |

Note: $\mathrm{X}=\mathrm{Closed} / \mathrm{O}=$ Open

3-Position Selector Switch Devices, Non-Illuminated (Bul. 800T only)


3-Position Cylinder Lock Operator Cat. No. 800T-J41A

$\ddagger$ If an overlapping cam is required, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

* Device supplied with 2 keys. Replacement key part no. for standard D018 key is X-181170. See page 10-46 for additional replacement key numbers.

Table 1. Cam and Contact Block Functionality Table

| Contact <br> Block <br> Suffix <br> Code | Contact Block Side | Ckts | Cam Codes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | KB7 <br> (Std.) |  |  | KA1 |  |  | KA7 |  |  | KC1 |  |  | KC7 |  |  | KD7 |  |  | KE7 |  |  | KQ1 |  |  | KQ7 |  |  | KR1 |  | KR7 |  |  |  | KT1 |  |  | KT7 |  |  | KU7 |  |  |
|  |  | A | X | O | O | X | O | O | O | O | X | O | O | X | X | O | O | 0 | 0 | X | X |  | 0 | X | 0 | X | X | 0 | X | X | 0 |  |  | 0 | X | O | 0 | X | X | 0 | 0 | X | 0 | 0 |
| 4 B |  | B | O | O | X | O | X | O | O | X | O | O | X | 0 | O | X | O | 0 | X | 0 | 0 |  | X | 0 | X | 0 | 0 | X | 0 | 0 | x |  |  | X | 0 | X | 0 | 0 | 0 | 0 | X | 0 | $\times$ | - |
| - |  | A | X | O | O | X | O | O | O | O | X | O | O | X | X | O | O | X | 0 | 0 | 0 |  | X | 0 | 0 | X | X | 0 | 0 | 0 | 0 |  |  | 0 | 0 | 0 | 0 | X | X | 0 | 0 | 0 | 0 | X |
| ${ }^{-}$ | Black | B | 0 | 0 | X | O | X | 0 | 0 | X | O | X | 0 | 0 | 0 | $\bigcirc$ | X | 0 | X | 0 | X |  | 0 | 0 | X | 0 | 0 | X | 0 | X | X |  | O | X | X | X | X | 0 | 0 | X | X | X | X | 0 |
|  |  | A | X | 0 | O | X | 0 | O | 0 | O | X | 0 | O | X | X | 0 | 0 | 0 | 0 | X | X |  | 0 | X | 0 | X | X | 0 | X | X | 0 |  |  | 0 | X | 0 | 0 | X | X | 0 | 0 | X | 0 | 0 |
|  | Whit | B | O | O | X | O | X | O | O | X | O | O | X | 0 | O | X | 0 | O | X | 0 | - |  | X | 0 | X | 0 | 0 | X | 0 | 0 | X |  |  | X | 0 | X | 0 | O | 0 | 0 | X | 0 | X | 0 |
| $\downarrow$ |  | A | X | O | O | X | O | O | O | O | X | O | O | X | X | O | O | X | 0 | 0 | - |  | X | 0 | 0 | X | X | 0 | O | 0 | 0 |  | X | 0 | 0 | 0 | 0 | X | X | 0 | 0 | 0 | 0 | X |
|  | Black | B | 0 | O | X | O | X | O | O | X | O | X | 0 | 0 | 0 | 0 | X | 0 | X | 0 | X |  | 0 | 0 | X | 0 | 0 | X | O | X | $\times$ |  |  | X | X | X | X | 0 | 0 | X | $\times$ | $\times$ | X | 0 |

4-Position Selector Switch Devices, Non-Illuminated


$$
800 \frac{\mathrm{~T}}{a} \frac{}{b}-\frac{\mathrm{N}}{c}
$$

a

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type 4/13 |
| H | Plastic, Type 4/4X/13 |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

c

| Knob Insert Colors |  |  |
| :---: | :---: | :---: |
| 800T |  | 800 H <br> Type <br> $4 / 13$ |
| Description | Type <br> $4 / 4 \mathrm{X} / 13$ |  |
| Code |  | Code |
| N | White | NR |
| NX | Packet of <br> colored inserts | NRX |
| Metal Wing Lever Colors |  |  |
| Code | Color | Code |
| NA | Red | - |
| NG | Grey | - |


| Operator Function and <br> Knob Type |  |
| :---: | :---: |
| Standard Knob |  |
| Code | Operator Function |
| 2 | Maintained |
| 3 | Spring return from <br> position 1 to position 2 |
| 9 | Spring return from <br> position 4 to position 3 |
| Code | Knob Lever\% |
| 17 | Operator Function |
| 29 | Spring return from <br> position 1 to position 2 |
| 30 | Spring return from <br> position 4 to position 3 |
| Metal Wing Lever\% |  |
| Code | Operator Function |
| 11 | Maintained |
| 13 | Spring return from <br> position 1 to position 2 |
| 14 | Spring return from <br> position 4 to position 3 |


| Cam Option $\Delta$ |  |
| :--- | :---: |
| Code | Description |
| KF4 | F cam |
| KG4 | G cam |
| KK4 | K cam |
| KM4 | M cam |
| KP4 | P cam |
| KN4 | Overlapping cam $\ddagger$ |


| Contact Blocks |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { 800T } \\ & \text { Type } \\ & 4 / 13 \end{aligned}$ | Description | $\begin{gathered} \text { 800H } \\ \text { Type } \\ 4 / 4 \mathrm{X} / 13 \end{gathered}$ |
| Code |  | Code |
| PenTUFF (Low Voltage) |  |  |
| BV | 2 N.O. - 2 N.C. | FFXX |
| HV | 3 N.O. - 3 N.C. | FFFX |
| CV | 4 N.O. - 4 N.C. | FFFF |
| Class 1, Div. 2 |  |  |
| Logic Reed§ |  |  |
| BR | 2 N.O. - 2 N.C. | TTXX |
| HR | 3 N.O. - 3 N.C. | TTTX |
| CR | 4 N.O. - 4 N.C. | T111 |
| Sealed Switch§ |  |  |
| BP | 2 N.O. - 2 N.C. | PPXX |
| Stackable Sealed Switch* |  |  |
| BY $\triangle$ | 2 N.O. - 2 N.C. | TTXX |
| HY $\triangle$ | 3 N.O. - 3 N.C. | TTTX |
| CY $\triangle$ | 4 N.O. - 4 N.C. | TIT |

$\star$ One insert of each color (blue, green, orange, red, and yellow).
$\ddagger$ Overlapping cam. See Publication 800T-2.8 for overlap specifications.
§ Contact block mounting same as listed for standard and PenTUFF contact blocks.

* Only available on Bul. 800T, Type 4/13 operators.
$\Delta$ See Table 1 for proper cam/contact selection.
- Not available with wing levers.

Table 1. Cam and Contact Block Functionality Table

| Contact Block Suffix Code |  |  | Contact Block Side |  | Cam Codes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | KF4 |  | KG4 |  |  |  | KK4 |  |  |  | KM4 |  |  |  | KP4 |  |  |  | KN4 $\ddagger$ |  |  |  |
|  |  |  | (8) |  | (1) | (4) | $\bigcirc$ | (1) | (t) | (4) | $\bigcirc$ | $\bigcirc$ | (1) | (4) | $\bigcirc$ | (\%) | (1) | (4) | $\bigcirc$ | (1) | (1) | (4) | $\bigcirc$ | (\%) | (1) | (4) | $\bigcirc$ |
| $\begin{gathered} 4 \\ \overbrace{1} \end{gathered}$ | $\underset{\mid}{\underset{1}{4}}$ |  |  | White | A | X | 0 | $\bigcirc$ | 0 | X | X | 0 | 0 | 0 | 0 | X | X | X | 0 | 0 | 0 | 0 | 0 | 0 | X | 0 | X | 0 | 0 |
|  |  |  | B |  | 0 | X | O | O | O | O | X | O | X | X | O | O | O | X | X | O | O | X | O | 0 | 0 | O | O | X |
|  |  |  | Black | A | 0 | 0 | 0 | X | X | 0 | 0 | 0 | X | 0 | 0 | X | 0 | 0 | 0 | X | 0 | 0 | X | X | 0 | 0 | X | 0 |
|  |  |  | B | 0 | 0 | X | 0 | 0 | 0 | 0 | X | 0 | X | X | 0 | O | X | 0 | 0 | X | 0 | 0 | 0 | X | O | 0 | 0 |
|  |  |  | White | A | X | 0 | 0 | 0 | X | X | 0 | 0 | 0 | 0 | X | X | X | 0 | 0 | 0 | 0 | 0 | 0 | X | 0 | X | 0 | 0 |
|  |  |  | B | 0 | X | 0 | 0 | 0 | 0 | X | 0 | X | X | 0 | 0 | 0 | X | X | 0 | 0 | X | 0 | 0 | 0 | 0 | 0 | X |
|  |  |  |  | Black | A | 0 | 0 | 0 | X | X | 0 | 0 | 0 | X | 0 | O | X | O | O | 0 | X | 0 | 0 | X | X | O | O | X | 0 |
|  |  |  | B |  | 0 | 0 | X | 0 | 0 | 0 | 0 | X | 0 | X | X | 0 | 0 | X | 0 | 0 | X | 0 | 0 | 0 | X | 0 | 0 | 0 |

Note: X = Closed/O = Open

4-Position Selector Switch Devices, Non-Illuminated (800T only)


Cylinder Lock Operator Cat. No. 800T-N32KF4B
a

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| $T$ | Metal, Type 4/13 |
| b |  |
| Finger-Safe Guards |  |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

C

| Key Removal Position and <br> Operator Function |  |
| :--- | :---: |
| Maintained |  |
| Code | Operator Function |
| N31 | Key removal position 1 |
| N32 | Key removal position 2 |
| N33 | Key removal position 3 |
| N34 | Key removal position 4 |
| N61 | Key removal all positions |

Note: X = Closed/O = Open
$\ddagger$ Overlapping cam. One layer of contact blocks allowed, no stacking. See Publication 800T-2.8 for overlap specifications.
§ Contact block mounting same as listed for standard and PenTUFF contact blocks.

* Device supplied with 2 keys. Replacement key part no. for standard D018
key is X-181170. Consult your local Rockwell Automation sales office or
Allen-Bradley distributor for additional replacement key numbers.

Table 1. Cam and Contact Block Functionality Table

| Contact Block Suffix Code |  |  | Contact Block Side |  | Cam Codes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | KF4 |  | KG4 |  |  |  | KK4 |  |  |  | KM4 |  |  |  | KP4 |  |  |  | KN4 $\ddagger$ |  |  |  |
|  |  |  | © |  | (1) | (4) | $\bigcirc$ | (6) | (1) | (4) | $\bigcirc$ | ( | (1) | (4) | $\dagger$ | (1) | (1) | (4) | $\bigcirc$ | © | (1) | (4) | $\bigcirc$ | © | (1) | (1) | $\bigcirc$ |
|  |  |  |  |  | A | X | 0 | 0 | 0 | X | X | 0 | 0 | 0 | 0 | X | X | X | 0 | 0 | 0 | 0 | 0 | 0 | X | 0 | X | 0 | 0 |
| 4 |  | 4 |  | White | B | O | X | O | 0 | 0 | O | X | 0 | X | X | 0 | 0 | 0 | X | X | 0 | 0 | X | 0 | 0 | 0 | 0 | 0 | X |
|  | 1 | - |  | A | 0 | 0 | 0 | X | X | 0 | 0 | 0 | X | 0 | 0 | X | 0 | 0 | 0 | X | 0 | 0 | X | X | 0 | 0 | X | 0 |
| ${ }_{C}$ |  |  | Black | B | O | 0 | X | 0 | O | O | 0 | X | 0 | X | X | 0 | 0 | X | 0 | O | X | 0 | 0 | O | X | O | 0 | 0 |
|  | $\downarrow$ |  |  | A | X | 0 | 0 | 0 | X | X | O | 0 | 0 | O | X | X | X | 0 | O | 0 | 0 | 0 | 0 | X | 0 | X | 0 | 0 |
|  |  |  | White | B | 0 | X | O | O | 0 | 0 | X | 0 | X | X | 0 | 0 | 0 | X | X | O | 0 | X | O | O | 0 | O | 0 | X |
| $\dagger$ |  |  |  | A | O | 0 | O | X | X | 0 | 0 | 0 | X | O | O | X | 0 | O | O | X | O | 0 | X | X | O | 0 | X | 0 |
|  |  |  | Black | B | 0 | O | X | 0 | 0 | 0 | 0 | X | 0 | X | X | 0 | 0 | X | O | O | X | 0 | 0 | 0 | X | 0 | 0 | 0 |



| Contact Blocks |  |
| :---: | :---: |
| Code | Description |
| Blank | No contacts |
| Standard |  |
| B | ```2 N.O. - 2 N.C. 2-800T-XAs - 1 on white side/1 on black side``` |
| H | ```3 N.O. - 3 N.C. 3-800T-XAs - 2 on white side/1 on black side``` |
| C | 4 N.O. - 4 N.C. <br> 4-800T-XAs - <br> 2 on white side/2 on black side |
| PenTUFF (Low Voltage) |  |
| BV | ```2 N.O. - 2 N.C. 2-800T-XAVs - 1 on white side/1 on black side``` |
| HV | 3 N.O. - 3 N.C.3-800T-XAVs -2 on whiteside/1 on black <br> side |
| CV | 4 N.O. - 4 N.C. <br> 4-800T-XAVs - <br> 2 on white side/2 on black side |
| Class 1, Div. 2 |  |
| Logic Reed§ |  |
| BR | 2 N.O. - 2 N.C. |
| HR | 3 N.O. - 3 N.C. |
| CR | 4 N.O. - 4 N.C. |
| Sealed Switch§ |  |
| BP | 2 N.O. - 2 N.C. |
| Stackable Sealed Switch§ |  |
| BY | 2 N.O. - 2 N.C. |
| HY | 3 N.O. - 3 N.C. |
| CY | 4 N.O. - 4 N.C. |

Note: Associated targets shown in Table 1.

2-Position Knob/Lever Type Selector Switch Devices, Illuminated


Standard Knob Operator Cat. No. 800T-16HR2KB6AX


Knob Lever Operator Cat. No. 800H-16HRR17KB6AX

$d$

| No. of Positions |  |  |
| :---: | :---: | :---: |
| Bul. |  | Bul. |
| 800T |  | 800 H |
| Type | Description | Type |
| 4/13 |  | $4 / 4 \mathrm{X} / 13$ |
| Code |  | Code |
| H | 2-position | HR |

e

| Knob Color |  |
| :---: | :---: |
| Code | Color |
| A | Amber |
| B | Blue |
| C | Clear |
| G | Green |
| R | Red |
| W | White |
| X | No knob |

$f$

| Illumination Options |  |
| :---: | :---: |
| Code | Description |
| Blank | Incandescent |
| H | LED |

Table 1. Selector Switch Cam
Targets

| Cam Description (2-Position) |  |  |
| :---: | :---: | :---: |
| Target |  | Contact Block <br> Code |
|  |  |  |
| O | X | $\mathrm{D}, \mathrm{H}, \mathrm{V}, \mathrm{R}, 5$ |
| X | O | $\mathrm{E}, \mathrm{U}, \mathrm{W}, \mathrm{S}, 6$ |

X = Closed/O = Open

Operator Functio
$g$

| Operator Function and Knob Type |  |
| :---: | :---: |
| Standard Knob or No Knob |  |
| Code | Operator Function |
| 2 | Maintained |
| 4 | Spring return from left |
| 5 | Spring return from right |
| Knob Lever |  |
| 17 | Maintained |
| 18 | Spring return from left |
| 19 | Spring return from right |

$h$

| Cam Options |  |
| :--- | :---: |
| 2-Position |  |
| Code | Operator Function |
| KB6 | Maintained cam |
| KL8 | Spring return cam |

Table 2. Contact Block Code Reduction Rules

| Contact Block Substitution |  |
| :---: | :---: |
| Combination | Code |
| Standard |  |
| D + E | A |
| D + D | M |
| $\mathrm{E}+\mathrm{E}$ | N |


| Contact Blocks $\Delta$ |  |
| :---: | :---: |
| Code | Description |
| Blank <br> (both <br> pos.) | No contacts |
|  |  |
| D | Standard |
| E | 1 N.O. |
| A | 1 N.C. |
| X | No contacts in this position |
| PenTUFF (Low Voltage) |  |
| H | 1 N.O. |
| U | 1 N.C. |
| F | 1 N.O. - 1 N.C. |
| Class 1, Div. 2 |  |
| Logic Reed |  |
| V | 1 N.O. |
| W | 1 N.C. |
| T | 1 N.O. - 1 N.C. |
| Sealed Switch |  |
| R | 1 N.O. |
| S | 1 N.C. |
| P | 1 N.O. - 1 N.C. |
| Stackable Sealed Switch |  |
| 5 | 1 N.O. |
| 6 | 1 N.C. |
| 7 | 1 N.O. - 1 N.C. |

$\Delta$ Contact blocks used on white side only.
^ Target tables are reversed for spring return from left operators.

3-Position Knob/Lever Type Selector Switch Devices, Illuminated


Standard Knob Operator Cat. No. 800T-16JR2KB7AX


Standard Knob Operator Cat. No. 800H-16JRR2KB7AX

$h$

| Cam Options |  |
| :--- | :---: |
| 3-Position |  |
| Code | Operator Function |
| KB7 | B7 cam |
| KC1 | C1 cam |
| KC7 | C7 cam |
| KE7 | E7 cam |
| KQ1 | Q1 cam |
| KT1 | T1 cam |
| Contact Blocks* $\boldsymbol{j}$ |  |
| Code | Description |
| Blank <br> (both <br> pos.) | No contacts |

$i, j$ (cont'd)

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type $4 / 13$ |
| H | Plastic, Type $4 / 4 \mathrm{X} / 13$ |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

C

| Power Module Type and Voltage |  |
| :---: | :---: |
| Full Voltage - Incandescent |  |
| Code | Description |
| 12 | $12 \mathrm{~V} \mathrm{AC/DC}$ |
| 24 | $24 \mathrm{~V} \mathrm{AC/DC}$ |
| 48 | $48 \mathrm{~V} \mathrm{AC/DC}$ |
| Universal - LED |  |
| 2 | $12 \ldots 130 \mathrm{~V}$ AC/DC |
| Transformer |  |
| 16 | 120 V AC 50/60 Hz |
| 26 | 240 V AC 50/60 Hz |
| For other voltages, please consult <br> your local Rockwell Automation <br> sales office or Allen-Bradley <br> distributor. |  |
|  |  |


| Illumination Options |  |
| :---: | :---: |
| Code | Description |
| Blank | Incandescent |
| H | LED§ |

$g$

| Operator Function and Knob Type |  |
| :---: | :---: |
| Standard Knob or No Knob |  |
| Code | Operator Function |
| 2 | Maintained |
| 4 | Spring return from left |
| 5 | Spring return from right |
| 91 | Spring return from both |
| Knob Lever |  |
| Code | Operator Function |
| 17 | Maintained |
| 18 | Spring return from left |
| 19 | Spring return from right |
| 20 | Spring return from both |

Table 1. Selector Switch Cam Targets

| Target |  |  | Cam Description (3-Position) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | (1) | $\square$ | KB7 | KC1 | KC7 | KE7 | KQ1 | KT1 |
| X | 0 | 0 | $\begin{gathered} \mathrm{D}, \mathrm{H}, \\ \mathrm{~V}, \mathrm{R}, 5 \end{gathered}$ | - | $\begin{gathered} \mathrm{D}, \mathrm{H}, \\ \mathrm{~V}, \mathrm{R}, 5 \end{gathered}$ | D, H, V | - | $\begin{gathered} \mathrm{E}, \mathrm{U}, \\ \mathrm{~W}, \mathrm{~S}, 6 \end{gathered}$ |
| 0 | X | 0 | - | $\begin{gathered} \mathrm{E}, \mathrm{U}, \\ \mathrm{~W}, \mathrm{~S}, 6 \end{gathered}$ | $\begin{gathered} \mathrm{E}, \mathrm{U}, \\ \mathrm{~W}, \mathrm{~S}, 6 \end{gathered}$ | - | $\begin{gathered} \mathrm{E}, \mathrm{U}, \\ \mathrm{~W}, \mathrm{~S}, 6 \end{gathered}$ | - |
| 0 | 0 | X | $\begin{gathered} \mathrm{E}, \mathrm{U}, \\ \mathrm{~W}, \mathrm{~S}, 6 \end{gathered}$ | $\begin{gathered} \mathrm{D}, \mathrm{H}, \\ \mathrm{~V}, \mathrm{R}, 5 \end{gathered}$ | - | - | - | $\begin{gathered} \mathrm{D}, \mathrm{H}, \\ \mathrm{~V}, \mathrm{R}, 5 \end{gathered}$ |
| X | X | 0 | G, I | $J, ~ Q$ | - | - | - | J, Q |
| 0 | X | X | J, Q | - | J, Q | $\begin{gathered} \mathrm{E}, \mathrm{U}, \\ \mathrm{~W}, \mathrm{~S}, 6 \end{gathered}$ | - | - |
| X | 0 | X | - | G,I | G,I | - | $\begin{gathered} \mathrm{D}, \mathrm{H}, \\ \mathrm{~V}, \mathrm{R}, 5 \end{gathered}$ | - |

[^1]Pilot Light Devices

Transformer Type Pilot Light Cat. No. 800T-P16R

Push-to-Test Pilot Light
Cat. No. 800T-PT16R


| $g$ |  |  |
| :---: | :---: | :---: |
| Code | Color | Glass <br> Code <br> $\#$ |
| Blank | No lens | Blank |
| A | Amber | D |
| B | Blue | E |
| C | Clear | F |
| G | Green | H |
| R | Red | J |
| W | White | K |


| Contact Blocks <br> (Push-to-test units only) |  |  |
| :--- | :---: | :---: |
| Code | Description |  |
| Standard |  |  |
| Blank | 1 N.O. - 1 N.C. |  |
| PenTUFF (Low Voltage) |  |  |
| AV | 1 N.O. - 1 N.C. |  |
| Class 1, Div. 2 |  |  |
| Logic Reed |  |  |
| AR | 1 N.O. - 1 N.C. |  |
| Sealed Switch |  |  |
| AP | 1 N.O. - 1 N.C. |  |
| Stackable Sealed Switch |  |  |
| AY | 1 N.O. - 1 N.C. |  |

$\nabla$ Non-push-to-test pilot lights using the universal LED option cannot be ordered as Bul. 800HC or 800TC. The terminals are finger-safe as standard.
$\Delta$ Diode type dual input provides circuit isolation via opposing diodes. Not recommended for use with solid-state outputs.

* Dual input devices (diode or transformer type) cannot be ordered as Bul. 800 HC or 800 TC . Finger-safe terminal guards are not available.
* LED illumination option is not available with diode type dual input.
\# Glass lens available on 800T pilot lights only. Not available on push-to-test units.


## 2-Position Push-Pull and Push-Pull/Twist Release Devices, Non-Illuminated

Note: A jumbo or large legend plate is recommended, if space allows.



2-Position Push-Pull / Twist Cat. No. 800T-FXT6D4


2-Position Push-Pull / Twist Cat. No. 800H-FRXT6D4

$$
800 \frac{\mathrm{~T}}{a} \frac{}{b}-\frac{\mathrm{FX}}{c} \frac{1}{d} \frac{\mathrm{~A} 1}{e}
$$

a

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type 4/13 |
| H | Plastic, Type 4/4X/13 |

$b$

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

C

| Head Type § |  |  |
| :---: | :---: | :---: |
| 800 T <br> Type <br> $4 / 13$ | Description | 800 H <br> Type <br> 4/4X/13 |
| Code | Code |  |
| FX | Mushroom head (push-pull) | - |
| FXC | 90 mm anodized aluminum <br> head (push-pull) | - |
| FXJ | Jumbo mushroom head <br> (push-pull) | - |
| FXJE | Jumbo mushroom head <br> (push-pull) with "E-Stop" | - |
| FXL | 63 mm anodized aluminum <br> head (push-pull) | - |
| FXLE | 63 mm anodized aluminum <br> head (push-pull) with <br> "E-Stop" | - |
| FXT | Push-pull/twist-to-release | FRXT |
| FXJT | Jumbo head push-pull with <br> twist-to-release | FRXJT |


| d |  |
| :---: | :---: |
| Color Cap |  |
| Code | Color |
| Blank | No cap $\%$ |
| 1 | Green |
| 2 | Black |
| 3 | Orange |
| 4 | Grey |
| 5 | White |
| 6 | Red |
| 7 | Blue |
| 9 | Yellow |


| Contact Block(s) |  |  |  |
| :---: | :---: | :---: | :---: |
| Code | Operator Position |  | Description |
|  | $\stackrel{\square}{\square}$ | $\stackrel{\leftrightarrows}{\pi 1+1}$ |  |
|  | Out | In |  |
| Blank | - | - | No contacts |
| PenTUFF (Low Voltage) |  |  |  |
| D1V | 0 | X | 1 N.O. |
| D2V | X | 0 | 1 N.C. |
| D4V | X | 0 | 1 N.C.L.B. |
| AV | $\begin{aligned} & \mathrm{O} \\ & \mathrm{X} \end{aligned}$ | $\begin{aligned} & \mathrm{X} \\ & 0 \end{aligned}$ | 1 N.O. - 1 N.C. |
| Class 1, Div. 2 |  |  |  |
| Logic Reed |  |  |  |
| D1R | 0 | X | 1 N.O. |
| D2R | X | 0 | 1 N.C. |
| AR | $\begin{aligned} & \mathrm{O} \\ & \mathrm{X} \end{aligned}$ | $\begin{aligned} & \mathrm{X} \\ & 0 \end{aligned}$ | 1 N.O. - 1 N.C. |
| Sealed Switch |  |  |  |
| D1P | 0 | X | 1 N.O. |
| D2P | X | 0 | 1 N.C. |
| AP | $\begin{aligned} & \mathrm{O} \\ & \mathrm{X} \end{aligned}$ | $\begin{aligned} & X \\ & 0 \end{aligned}$ | $\begin{aligned} & 1 \text { N.O. } \\ & 1 \text { N.C. } \end{aligned}$ |
| Stackable Sealed Switch |  |  |  |
| D1Y | 0 | X | 1 N.O. |
| D2Y | X | 0 | 1 N.C. |
| AY | $\begin{aligned} & \mathrm{O} \\ & \mathrm{X} \end{aligned}$ | $\begin{aligned} & \mathrm{X} \\ & 0 \end{aligned}$ | 1 N.O. - 1 N.C. |

Note: $\mathrm{X}=\mathrm{Closed} / \mathrm{O}=$ Open
$\star$ Normally closed late break contact. When button is pushed from the OUT to IN position, the mechanical detent action of the operator occurs before electrical contacts change state. When the button is pulled from the IN in the OUT position, the electrical contacts change state before the mechanical detent occurs.
§ Devices with N.C.L.B. contacts meet EN ISO 13850 and IEC 60947-5-5 standards for emergency stop applications.

* Not valid with head Type J or JT.
$\nabla$ Two 800T-XD4 contact blocks supplied.


## 3-Position Push-Pull Devices, Non-Illuminated

Note: A jumbo or large legend plate is recommended, if space allows.


| a |  |  |
| :---: | :---: | :---: |
| Protection Rating |  |  |
| Code | Description |  |
| T | Metal, Type 4/13 |  |
| $H$ | Plastic, Type 4/4X/13 |  |
| b |  |  |
| Code | Finger-Safe Guards |  |
| Blank | Description |  |
| C | No guards |  |

C

| Head Type |  |  |
| :---: | :---: | :---: |
| 800 T  <br> Type Description | 800 H <br> Type <br> $4 / 4 \mathrm{X} / 13$ |  |
|  |  | Code |
| Code |  | FRX |
| FX | Mushroom head (push-pull) | F |
| FXC | 90 mm anodized aluminum <br> head (push-pull) | - |
| FXJ | Jumbo mushroom head <br> (push-pull) | FRXJ |
| FXL | 63 mm anodized aluminum <br> head (push-pull) | - |

$d$




Note: X = Closed/O = Open § Not valid with head Type J.

2-Position Push-Pull and Push-Pull/Twist Release Devices, Illuminated
Note: A jumbo or large legend plate is recommended, if space allows.


| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type 4/13 |
| H | Plastic, Type 4/4X/13 |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

C

| Head Type * |  |  |
| :---: | :---: | :---: |
| 800 T <br> Type <br> $4 / 13$ | Description | 800 H <br> Type <br> $4 / 4 \mathrm{X} / 13$ |
| Fode |  | Code |
| FX | Mushroom <br> head | FRX |
| FXJ | Jumbo <br> mushroom | FRXJ |
| FXJE | Jumbo <br> mushroom <br> (push-pull) with <br> "E-Stop" | - |

$d$

| Operator Function |  |
| :---: | :---: |
| Code | Description |
| Blank | Push-pull \# |
| T | Push-pull/twist |


| Illumination Options |  |
| :---: | :---: |
| Transformer |  |
| Code | Description |
| P | Incandescent |
| PH | LED |
| Full Voltage |  |
| Q | Incandescent |
| QH | Universal LED |
| Dual Input |  |
| D | Diode type $\uparrow$ |
| DT | Transformer - relay type |
| DTH | Transformer - relay type <br> LED |


|  |  |
| :---: | :---: |
| Color Cap |  |
| Code | Color |
| X | No cap <br> (not valid with head Type J) |
| A | Amber |
| B | Blue |
| C | Clear |
| G | Green |
| R | Red |
| W | White |


| Target |  |  |
| :---: | :---: | :---: |
| Contact | $\xrightarrow{4}$ | 蠛 |
| N.O. | 0 | X |
| $\begin{gathered} \text { N.C./ } \\ \text { N.C.L.B. } \end{gathered}$ | X | O |
| Contact Blocks |  |  |
| Code | Description |  |
| Blank | No contacts |  |
| Standard |  |  |
| D1 | 1 N.O. |  |
| D2 | 1 N.C. |  |
| D4 | 1 N.C.L.B. |  |
| A | 1 N.O. - 1 N.C. |  |
| A1 | 1 N.O. - 1 N.C.L.B. |  |
| A5 | 2 N.C.L.B. $\nabla$ |  |
| PenTUFF (Low Voltage) |  |  |
| D1V | 1 N.O. |  |
| D2V | 1 N.C. |  |
| D4V | 1 N.C.L.B. |  |
| AV | 1 N.O. - 1 N.C. |  |

$h$

| $f$ |  |
| :---: | :---: |
| Voltage § |  |
| Transformer |  |
| Code | Description |
| 16 | 120V AC 50/60 Hz |
| 26 | 240 V AC 50/60 Hz |
| Full Voltage |  |
| 24 | 24V AC/DC |
| 10 | 120 V AC/DC |
| 20 | 240V AC/DC |
| Universal LED |  |
| 2 | 12...130V AC/DC |
| Dual Input |  |
| 16 | 120 V AC |
| 24 | 24V AC/DC <br> (dual input diode only) |


| $h(c o n t ' d)$ |  |
| :---: | :---: |
| Contact Blocks |  |
| Code | Description |
| Class 1, Div. 2 |  |
| Logic Reed |  |
| D1R | 1 N.O. |
| D2R | 1 N.C. |
| AR | 1 N.O. - 1 N.C. |
|  |  |
| D1P | Sealed Switch |
| D2P | 1 N.O. |
| AP | 1 N.C. |
| Stackable Sealed Switch |  |
| D1Y | 1 N.O. |
| D2Y | 1 N.C. |
| AY | 1 N.O. - 1 N.C. |

§ See page 18 for additional voltage code options.

* Devices with N.C.L.B. contacts meet EN ISO 13850 and IEC 60947-5-5 standards for emergency stop applications.
\# Push-Pull is available only with Bul. 800T.
- Diode type dual input provides circuit isolation via opposing diodes. Not recommended for use with solid-state outputs.
$\nabla$ Two stacked 800T-XD4 contact blocks supplied.

3-Position Push-Pull Devices, Illuminated


Illuminated 3-Position Push-Pull
Cat. No. 800T-FXMP16RA7


Illuminated 3-Position Push-Pull Cat. No. 800H-FRXMP16A7

$$
800 \frac{\mathrm{~T}}{a}-\frac{\mathrm{FX}}{c} \frac{\mathrm{M}}{d}
$$

$$
\frac{\mathrm{PH}}{e}
$$

a

| Protection Rating |  |
| :---: | :---: |
| Code | Description |
| T | Metal, Type 4/13 |
| H | Plastic, Type 4/4X/13 |

b

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

C

| Head Type |  |  |
| :---: | :---: | :---: |
| 800T |  | 800 H |
| Type |  | Type |
| 4/13 | Description | $4 / 4 \mathrm{X} / 13$ |
| Code |  | Code |
| FX | Mushroom head | FRX |
| FXJ | Jumbo <br> mushroom | FRXJ |


| Operator Function |  |  |  |
| :---: | :---: | :---: | :---: |
| Code | Operator Position |  |  |
|  |  | $\stackrel{\leftrightarrows}{\square 1}$ | $\stackrel{\leftrightarrows}{\text { Ahty }}$ |
|  | Out | Ctr. | In |
| M | Mom. | Main. | Main. |
| N | Mom. | Main. | Mom. |
| Mom. - Momentary, <br> Main. - Maintained. |  |  |  |


| e |  |
| :---: | :---: |
| Illumination Options |  |
| Transformer |  |
| Code | Description |
| P | Incandescent |
| PH | LED |
|  |  |
| Q | Full Voltage |
| QH | Incandescent |
| Universal LED |  |
| D | Dual Input |
| DT | Transformer - relay type |
| DTH | Transformer - relay LED |


| Voltage \% |  |
| :---: | :---: |
| Transformer |  |
| Code | Description |
| 16 | 120 V AC 50/60 Hz |
| 26 | 240 V AC 50/60 Hz |
| Full Voltage |  |
| 24 | 24V AC/DC |
| 10 | 120 V AC/DC |
| 20 | 240V AC/DC |
| Universal LED |  |
| 2 | 12...130V AC/DC |
| Dual Input |  |
| 16 | 120 V AC |
| 24 | 24V AC/DC \# |
| $g$ |  |
| Color Cap |  |
| Code | Color |
| X | No cap (not valid with head Type J) |
| A | Amber |
| B | Blue |
| C | Clear |
| G | Green |
| R | Red |
| W | White |


| Target |  |  |  |
| :---: | :---: | :---: | :---: |
| Contact | $\square$ | $\square$ | 品 |
| N.O. | 0 | 0 | X |
| N.C. | X | 0 | 0 |
| N.C.L.B. | X | X | 0 |
| Contact Blocks |  |  |  |
| Code | Description |  |  |
| Blank | No contacts on operator |  |  |
| Standard |  |  |  |
| A | 1 N.O. - 1 N.C. |  |  |
| A1 | 1 N.O. - 1 N.C.L.B. |  |  |
| A7 | 1 N.C. - 1 N.C.L.B. |  |  |
| PenTUFF (Low Voltage) |  |  |  |
| AV | 1 N.O. - 1 N.C. |  |  |
| Class 1, Div. 2 |  |  |  |
| Logic Reed |  |  |  |
| AR | 1 N.O. - 1 N.C. |  |  |
| Sealed Switch |  |  |  |
| AP | 1 N.O. - 1 N.C. |  |  |
| Stackable Sealed Switch |  |  |  |
| AY | 1 N.O. - 1 N.C. |  |  |

\% See page 18 (Table f) for additional voltage code options.

- Diode type dual input provides circuit isolation via opposing diodes. Not recommended for use with solid-state outputs and neon indicators.
\# Dual input diode only.

Cluster Pilot Light Devices (Bul. 800T Only) ネ



| Voltage Options |  |
| :---: | :---: |
| Full Voltage |  |
| Code | Description |
| 06 | $6 \mathrm{~V} \mathrm{AC/DC}$ |
| 12 | $12 \mathrm{~V} \mathrm{AC/DC}$ |
| 24 | $24 \mathrm{~V} \mathrm{AC/DC}$ |
| Transformer |  |
| 16 | $120 \mathrm{~V} \mathrm{AC,50/60} \mathrm{~Hz}$ |


| e, $f, g, h$ |  |
| :---: | :---: |
| Color Options |  |
| Blank (All 4 <br> Positions) | Color |
| X | Standard unit |
| A | Amber color |
| B | Blue |
| C | Clear |
| G | Green |
| R | Red |
| W | White |


| a |  |
| :---: | :---: |
| Finger-Safe Guards |  |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |
| b |  |
| Power Module Type |  |
| Code | Description |
| QC | Full voltage |
| PC | Transformer |


| Cllumination Options and No. of |  |
| :---: | :---: |
| Units |  |

Custom Lens Caps for Cluster Pilot Lights

a

| No. of Lamps/Voltage |  |
| :---: | :---: |
| Transformer |  |
| Code | Description |
| N50 | 4 lamps, 120V AC, $50 / 60 \mathrm{~Hz}$ |
| N51 | 3 lamps, 120V AC, $50 / 60 \mathrm{~Hz}$ |
| N52 | 2 lamps, 120V AC, 50/60 Hz |
| N249 | 4 lamps, 6V AC/DC |
| N250 | 4 lamps, 12V AC/DC |
| N251 | 4 lamps, 24V AC/DC |
| N252 | 3 lamps, 6V AC/DC |
| N253 | 3 lamps, 12V AC/DC |
| N254 | 3 lamps, 24V AC/DC |
| N255 | 2 lamps, 6V AC/DC |
| N256 | 2 lamps, 12V AC/DC |
| N257 | 2 lamps, 24V AC/DC |


| Illumination Options |  |
| :---: | :---: |
| Code | Description |
| Blank | Incandescent |
| L | LED $\ddagger$ |


| Code | Description |
| :---: | :---: |
| Blank (All <br> Positions) | Standard unit |
| A | Amber |
| B | Blue |
| C | Clear |
| G | Green |
| R | Red |
| W | White |
| X | No color |

* Rated Type 4/13 indoor only.
$\ddagger$ LEDs are available in red, green and amber only; lens color matches LED color. Exception: the white lens is supplied with an amber LED.
§ White lenses use amber LEDs.
$\because$ LEDs could be adversely affected when used with solid-state outputs.
$\Delta 6 \mathrm{~V}$ and 12 V are positive polarity. 24 V LEDs are bipolar.
- Consult your local Rockwell Automation sales office or Allen-Bradley distributor for standard unit colors.

1-, 2-, 3-, 4-Way Toggle Switches (Bul. 800T only)



| a |  |
| :---: | :---: |
| Finger-Safe Guards |  |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |
| b |  |
| Operator Type |  |
| Code | Description |
| T1 | 1-way toggle |
| T2 | 2-way toggle |
| T3 | 3-way toggle |
| T4 | 4-way toggle |

Table 1. Contact Block Code

| Contact Block Substitution |  |  |
| :---: | :---: | :---: |
| Combination | Code |  |
| Standard |  |  |
| D + E | A |  |
| D + D | $\star$ |  |
| E + E | M |  |
| $\mathrm{J}+\mathrm{D}$ | N |  |
| $\mathrm{J}+\mathrm{E}$ | C |  |

Table 2. 1-2-3-4 Way Toggle Switch Cam Targets

| Contact Configuration |  |  |  |  | Suffix Code |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Position |  |  |  | Contact/Side |  |  |  |
| Up | Left | Center | Right | Down | Right Side | Left Side |  |
| O | X | O | O | O | D, H, V, R, 5 | - |  |
| O | O | O | O | X | E, U, W, S, 6 | - |  |
| X | O | X | X | X | J, Q | - |  |
| X | X | X | X | O | G, I | - |  |
| X | O | O | O | O | - | E, U, W, S, 6 |  |
| O | O | O | X | O | - | D, H, V, R, 5 |  |
| O | X | X | X | X | - | G, I |  |
| X | X | X | O | X | - | J, Q |  |

Note: M = Maintained,
$\mathrm{S}=$ Spring Return

* XA2 and XA2R contact blocks cannot be stacked upon, but they can stack on other contact
blocks.

Selector Push Button Devices (Bul. 800T only)


Selector Push Button
Cat. No. 800T-K2AAXX



| $d, e, f, g$ |  |
| :---: | :---: |
| Code | Contact Blocks |
| Blank <br> (all <br> pos.) | Description |
|  | No contacts on operator |
| D | Standard |
| E | 1 N.O. |
| G | 1 N.C. |
| J | 1 N.O.E.M. |
| A | 1 N.C.L.B. |
| X | No contacts in this position |
|  | PenTUFF (Low Voltage) |
| H | 1 N.O. |
| U | 1 N.C. |
| I | 1 N.O.E.M. |
| Q | 1 N.C.L.B. |
| F | 1 N.O. - 1 N.C. |


| d, e, f, g (cont'd) |  |
| :---: | :---: |
| Contact Blocks |  |
| Code | Description |
| Class 1, Div. 2 |  |
| Logic Reed |  |
| V | 1 N.O. |
| W | 1 N.C. |
| T | 1 N.O. - 1 N.C. |
| Sealed Switch |  |
| R | 1 N.O. |
| S | 1 N.C. |
| P | 1 N.O. - 1 N.C. |
| Stackable Sealed Switch |  |
| 5 | 1 N.O. |
| 6 | 1 N.C. |
| 7 | 1 N.O. - 1 N.C. |

Table 2. Contact Block Reduction Rules

| Contact Block Substitution |  |
| :---: | :---: |
| Standard |  |
| Combination | Substitute Code |
| $\mathrm{D}+\mathrm{E}$ | A |
| $\mathrm{D}+\mathrm{D}$ | $\mathrm{M} \star$ |
| $\mathrm{E}+\mathrm{E}$ | N |
| $\mathrm{J}+\mathrm{D}$ | B |
| $\mathrm{J}+\mathrm{E}$ | C |

Table 1. Selector Push Button Cam Targets (Note: $X=$ Closed/O = Open)

| Sleeve Position |  |  |  | Cam Description |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ |  | $\theta$ |  | KA/K |  | KB |  | KC |  | KD |  | KE |  |
| Button | Button | Button | Button | Contact Block Side |  |  |  |  |  |  |  |  |  |
| Free | Pressed | Free | Pressed | Right | Left | Right | Left | Right | Left | Right | Left | Right | Left |
| 0 | 0 | 0 | X | - | - | - | D, H, V, R, 5 | - | D, H, V, R, 5 | - | - | - | - |
| 0 | 0 | X | 0 | E, U, W, S, 6 | E, U, W, S, 6 | - | - | - | - | - | E, U, W, S, 6 | - | E, U, W, S, 6 |
| 0 | 0 | X | X | - | - | - | - | - | - | E, U, W, S, 6 | - | E, U, W, S, 6 | - |
| 0 | X | 0 | 0 | - | - | - | - | D, H, V, R, 5 | - | D, H, V, R, 5 | - | D, H, V, R, 5 | - |
| 0 | X | 0 | X | D, H, V, R, 5 | D, H, V, R, 5 | D, H, V, R, 5 | - | - | - | - | D, H, V, R, 5 | - | D, H, V, R, 5 |
| 0 | X | X | 0 | - | - | - | - | - | - | - | - | - | - |
| X | 0 | X | 0 | J or Q | $J$ or Q | E, U, W, S, 6 | - | - | - | - | $J$ or Q | - | $J$ or Q |
| X | X | 0 | 0 | - | - | - | - | - | - | G or I | - | G or I | - |
| X | X | 0 | X | G or I | G or I | - | - | - | - | - | G or I | - | G or I |
| X | 0 | X | X | - | - | - | - | E, U, W, S, 6 | - | $J$ or Q | - | $J$ or Q | - |
| X | X | X | 0 | - | - | - | E, U, W, S, 6 | - | E, U, W, S, 6 | - | - | - | - |

Momentary Contact Flip Lever Devices (Bul. 800H Type 4/4X only)

a

| Finger-Safe Guards |  |
| :---: | :---: |
| Code | Description |
| Blank | No guards |
| C | Guards on terminals |

b

| Operator Color |  |
| :---: | :---: |
| Code | Description |
| 4 | Grey |
| 6 | Red |

C

| Operator Types |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Code | Description | Code | Description |  |
| - | Blank | 20 | OUT |  |
| 1 | STOP | 21 | RAISE |  |
| 2 | START | 22 | RESET |  |
| 3 | CLOSE | 23 | REVERSE |  |
| 4 | DOWN | 24 | RIGHT |  |
| 5 | EMERG. STOP | 25 | RUN |  |
| 6 | FAST | 26 | SECOND |  |
|  | SPEED |  |  |  |
| 7 | FORWARD | 27 | SLOW |  |
| 8 | FULL SPEED | 28 | TEST |  |
| 9 | HIGH | 29 | THIRD SPEED |  |
| 10 | IN | 30 | UP |  |
| 11 | INCH | 31 | O |  |
| 12 | JOG | 32 | I |  |
| 13 | LEFT | 33 | AVANT |  |
| 14 | LOW | 34 | OUVRIR |  |
| 15 | LOW SPEED | 35 | ARRIER |  |
| 16 | LOWER | 36 | MARCHE |  |
| 17 | OFF | 37 | ESSAI |  |
| 18 | ON | 38 | ARRET |  |
| 19 | OPEN |  |  |  |

$d$ (cont'd)

| Contact Block(s) |  |
| :---: | :---: |
| Code | Description |
| PenTUFF (Low Voltage) |  |
| D1V | 1 N.O. |
| D2V | 1 N.C. |
| D3V | 1 N.O.E.M. |
| D4V | 1 N.C.L.B. |
| AV | 1 N.O. - 1 N.C. |
| BV | 2 N.O. - 2 N.C. |
| Class 1, Div. 2 |  |
| Logic Reed |  |
| D1R | 1 N.O. |
| D2R | 1 N.C. |
| A2R | 2 N.O.§ |
| A4R | 2 N.C. |
| AR | 1 N.O. - 1 N.C. |
| BR | 2 N.O. - 2 N.C. |

Protective Boot Application Information

## - Chlorosulfonated Polyethylene (synthetic rubber)

Very resistant to attack by oxidizing chemicals such as concentrated sulfuric acid and hypochlorite solutions. Also resistant to attack by oils and performs well in a wide range of other chemicals and solvents. Good flex and high impact resistance. This is the standard boot material supplied with 800H NEMA Type 4/4X push buttons unless otherwise specified.

- Silicone

Superior high temperature resistance. Particularly suited for use where organic acids or vegetable oils may be present. Also superior resistance to the effects of outdoor use, such as oxygen, ozone, and weather.

## - Urethane

Excellent resistance to mechanical failure. Most durable boot material. Particularly suited for use where lubricating oils and automotive fuels may be present. Also well-suited for outdoor use.

## - Ethylene-propylene

Particularly suited for high temperature applications. Resistant to attack by many acids and alkalies, detergents, phosphate esters, ketones, alcohols, and glycols. Outstanding service in areas with hot water and steam wash downs.

Approximate Dimensions
Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Mounting Instructions for Push Buttons with Shallow Blocks,
Mini Blocks, Logic Reed Blocks, Sealed Switch Blocks, and
Time Delay Blocks (see footnotes for exceptions)

$\star$ Change to $2-1 / 4$ in. ( 57.2 mm ) for transformer type pilot light, push-to-test pilot lights, illuminated selector switches, and all push-pull buttons.
Note: Large legend plate requires minimum horizontal spacing of 2-15/32 in. $(62.7 \mathrm{~mm})$.
$\ddagger$ Vertical minimum spacing dimension changes for the following legend plates: jumbo 2-15/32 in. ( 62.7 mm ); large 2-7/16 in. ( 61.9 mm ); cluster pilot light and 2-, 3-, 4-way switches 2-1/16 in. (52.4 mm).

Panel Thickness - Kits are shipped with three 1/16 in. ( 1.58 mm ) gaskets. Refer to table below for number of washers required for various panel thicknesses.

|  | 1/16 in. ( 1.6 mm ) (16 Gauge) | 7/64 in. (2.8 mm) (12 Gauge) 9/64 in. ( 3.6 mm ) (10 Gauge) | 3/16 in. (4.8 mm) Panel | Thicker Than $3 / 16$ in. ( 4.8 mm ) Panel | Thicker Than 1/4 in. ( 6.4 mm ) Panel |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8007 | 3 washers | 2 washers | 1 washer | Counterbore to $3 / 16$ in. ( 4.8 mm ) | Counterbore to $3 / 16$ in. ( 4.8 mm ) |
| 800H | 4 washers | 3 washers | 2 washers | 1 washer | Counterbore to $1 / 4 \mathrm{in} .(6.4 \mathrm{~mm})$ |

Mounting Instructions for 18 mm Small Pilot Lights
Type A Legend Plate


| Device | Dimensions |  |
| :---: | :---: | :---: |
|  | Horizontal | Vertical |
| 800T-PS, PSD, PST, QS, | $31 / 32$ | $1-5 / 32$ |
| QST and RST | $(24.6)$ | $(29.4)$ |
| 800T-PSDT | $1-3 / 64$ | $1-15 / 64$ |
|  | $(26.6)$ | $(31.4)$ |

## Type B Legend Plate



Sketch illustrates the minimum distance between centerlines when mounting Bulletin 800T/H controls either side-by-side, facing each other, or one above the other. When control units are mounted so that the contact block terminals face each other, the 2-1/4 in. ( 57.2 mm ) dimension must be used in order to get proper electrical clearance. When control units are mounted so that the contact block terminals do not face each other, the 1-27/32 in. ( 46.8 mm ) dimension can be used.
Typical Panel Cut-Out


Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes. Legend Plate Dimensions (Bul. 800T Only)


Standard Legend Plate


Push-Pull/Twist Legend Plate Cat. No. 800T-X647 *


Jumbo Legend Plate


Round
Cat. No. 800T-X646 *
$\star$ For panel mounting only. Not for use with Allen-Bradley enclosures.
Legend Plate Dimensions (Bul. 800H Only)


Type 4/4X Standard Legend Plate


Type 4/4X Round


Type 4/4X Jumbo Legend Plate


Type 4/4X
Standard Legend Plate (Flip Lever Operators)


Large Legend Plate (Automotive Industry Type)


Cluster Pilot Light and 2-3-4 Way Switch Silver Legend Plate Cat. No. 800T-X619


Type 4/4X Large Legend Plate (Automotive Industry Type)

Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Blocks (Bul. 800T Only)


Mini Contact Block $7 / 8$ (22.2) Deep


Tandem Mounting (2 shallow contact blocks stacked)


Shallow, PenTUFF, and Logic Reed Contact Blocks 1-1/8 (28.6) Deep


Stackable Sealed Switch Block
1.58 (40.1) Deep


Sealed Switch Block 2 (50.8) Deep


Time Delay Contact Block (For Push Buttons Only)


Snap Action Contact Block (For Push Button Only)

* Dimension shown is for push buttons. Selector switch dimension is 2-1/32 in. ( 51.6 mm ). $\ddagger$ Dimension shown is for push buttons. Selector switch dimension is 2-27/32 in. ( 72.2 mm ). § Dimension shown is for push buttons. Selector switch dimension is $3-5 / 32 \mathrm{in}$. ( 80.2 mm ).

Blocks (Bul. 800H Only)


## Mini Contact Block



Sealed Switch Block
2 (50.8) Deep


Reed Contact Blocks


Stackable Sealed Switch Block
1.58 (40.1) Deep

| Dim. | Momentary Push Button | Maintained Push Button | Selector Switch |
| :---: | :---: | :---: | :---: |
| A | $2(50.8)$ | $2(50.8)$ | $1-29 / 32(48.4)$ |

Operator Extension Behind Panel - When mounted with thrust washer, trim washer, or notched legend plate and correct number of rubber washers.

Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Push Buttons and Switches (Bul. 800T Only)


Shipping Wt. with 2 Contact Blocks 6 oz ( 0.17 kg ) Shipping Wt. with 4 Contact Blocks 8-1/2 oz (0.24 kg)


Mechanically Interlocked Maintained Contact Push Button

Shipping Wt. 1 lb ( 0.45 kg )

Push Buttons and Pilot Lights


Illuminated Knob Lever and Standard Knob Selector Switch Shipping Wt. 6 oz ( 0.17 kg )


Mushroom Head Push Button Shipping Wt. 7-1/2 oz (0.21 kg)


Wing Lever Selector Switch Shipping Wt. 8 oz ( 0.22 kg )


Non-Illuminated Knob Lever and Standard Knob Selector Switch Shipping Wt. 6 oz ( 0.17 kg )


Coin Slot Selector Switch Shipping Wt. 6 oz ( 0.17 kg )

[^2]Operator Extension in Front of Panel (Bul. 800T Only)


Key Operated Selector Switch Shipping Wt. 12 oz ( 0.34 kg )


Selector Push Button
Shipping Wt. 6 oz ( 0.17 kg )


Push Button with Cylinder Lock Shipping Wt. $12 \mathrm{oz}(0.34 \mathrm{~kg})$



Wobble Stick Shipping Wt. 9 oz ( 0.25 kg )


Type J Potentiometer Unit
Shipping Wt. 4 oz ( 0.11 kg )

Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Push Buttons and Switches (Bul. 800H Only)


Bootless Flush and Extended Head
Momentary Contact Push Button
Shipping Weight. 5-1/2 oz (0.16 kg)


Booted Flush and Extended Head
Momentary Contact Push Button Shipping Weight. 5-1/2 oz (0.16 kg)


Standard Knob Selector Switch Non-Illuminated Shipping Weight. 6 oz ( 0.17 kg )


Bootless Maintained Contact Push Buttons


Booted Maintained Contact Push Buttons
Shipping Weight. 1 lb ( 0.45 kg )


Type J Potentiometer Unit
Shipping Weight. 7 oz (0.20 kg)


Type 4 Flip Lever
Shipping Weight. 8 oz ( 0.14 kg )


Mushroom Head - Maintained and Momentary

| Non-Illuminated Mushroom and Push-Pull Push Buttons |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cat. No. Suffix | Description |  |  | Shipping Weights |
| D4 | One Shallow Block | A | $\begin{gathered} \hline 2-1 / 32 \\ (51.6) \end{gathered}$ | 5 oz (0.14 kg) |
| A1, A5 and A7 | Two Shallow blocks | A | $\begin{gathered} 2-1 / 32 \\ (51.6) \end{gathered}$ | 6 oz (0.17 kg) |
| B6 | Two Shallow Blocks and Two Mini Blocks | B | $\begin{aligned} & 2-7 / 8 \\ & (73.0) \end{aligned}$ | 8 oz (0.22 kg) |

* Jumbo versions are 2-1/4 (57.2).

Break-Glass Station

$\mathrm{A}=2 \frac{3}{4}(69.85)$
$B=43 / 16$ (106.38)
$F=9 / 16(14.28)$

Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Pilot Light and Illuminated Devices (Bul. 800T Only)


Full Voltage, Neon and
Dual Input Pilot Light
Shipping Wt. $5 \mathrm{oz}(0.14 \mathrm{~kg})$


Push-Pull and Twist or Pull Release Units (Transformer Type Illuminated)


Transformer Type Pilot Light
Shipping Wt. 8 oz ( 0.22 kg )


Full Voltage, Neon and Dual Input Type (Push-to-Test Pilot Light and Illuminated Push Button)


Push-Pull and Twist or Pull Release Units (Full Voltage, Neon and Dual Input IIluminated and All Non-IIluminated)

* Jumbo mushroom versions are 2-1/4 in. ( 57.2 mm ) diameter.

| Push-to-Test Pilot LightsIlluminated Push Buttons and Illuminated Push-Pull Buttons |  |  |  |  |  |  |  | Non-Illuminated Push-Pull Buttons |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cat. No. | Description | Transformer Type |  |  | Full Voltage or Neon Type |  |  | Cat. No. Suffix | Description | Transformer Type |  |  |
| Suffix $\ddagger$ |  |  | Dim. | Ship. Wt. |  | Dim. | Ship. Wt. |  |  |  | Dim. | Ship. Wt. |
| D4 | Transformer or Terminal Module and One Shallow Contact Block | A | $\begin{aligned} & 2-5 / 32 \\ & (54.8) \S \end{aligned}$ | $\begin{gathered} 9 \mathrm{oz} . \\ (0.25 \mathrm{~kg}) \end{gathered}$ | A | $\begin{gathered} 2-1 / 32 \\ (51.6) \end{gathered}$ | $\begin{gathered} 7 \mathrm{oz} . \\ (0.25 \mathrm{~kg}) \end{gathered}$ | D4 | One Shallow Contact Block | A | $\begin{gathered} 2-1 / 32 \\ (51.6) \end{gathered}$ | $\begin{gathered} 5 \mathrm{oz} . \\ (0.14 \mathrm{~kg}) \end{gathered}$ |
| A1 and A7 | Transformer or Terminal Module and One Shallow Block and One Mini Contact Block | B | $\begin{gathered} 2-7 / 8 \\ (73) \end{gathered}$ | $\begin{gathered} 10 \mathrm{oz} \\ (0.28 \mathrm{~kg}) \end{gathered}$ | B | $\begin{gathered} 2-7 / 8 \\ (73) \end{gathered}$ | $\begin{gathered} 8 \mathrm{oz} . \\ (0.22 \mathrm{~kg}) \end{gathered}$ | $\begin{aligned} & \text { A4 } \\ & \text { A5 } \\ & \text { A7 } \end{aligned}$ | Two Shallow Contact Blocks | A | $\begin{gathered} 2-1 / 32 \\ (51.6) \end{gathered}$ | $\begin{gathered} 6 \mathrm{oz} . \\ (0.17 \mathrm{~kg}) \end{gathered}$ |
| AP <br> D1P <br> D2P | Transformer or Terminal Module and One Sealed Switch Contact Block | A | $\begin{gathered} 3-1 / 32 \\ (77) \end{gathered}$ | $\begin{gathered} 10 \mathrm{oz} . \\ (0.28 \mathrm{~kg}) \end{gathered}$ | A | $\begin{gathered} 2-29 / 32 \\ (73.8) \end{gathered}$ | $\begin{gathered} 8 \mathrm{oz} . \\ (0.22 \mathrm{~kg}) \end{gathered}$ | B6 | Two Shallow Blocks and Two Mini Contact Blocks | B | $\begin{gathered} 2-7 / 8 \\ (73) \end{gathered}$ | $\begin{gathered} 8 \mathrm{oz} . \\ (0.22 \mathrm{~kg}) \end{gathered}$ |

$\ddagger$ Applies to illuminated push-pull push buttons only.
§ Dual input type pilot light dimension is 2-13/32 in. (61.1 mm).

Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Push-to-Test Pilot Light and Illuminated Devices (Bul. 800H Only)


Transformer Type Pilot Light (Incandescent and LED)
Shipping Weight. 12 oz ( 0.34 kg )


Full Voltage and Dual Input Diode Type
Pilot Light (Incandescent, Neon, LED) Shipping Weight. $5 \mathrm{oz}(0.14 \mathrm{~kg})$


Momentary Mushroom, Push-Pull and Twist or Pull Release Units
(Full Voltage: Incandescent, LED, Neon; and Dual Input Illuminated)

| Push-to-Test Pilot LightsIlluminated Push Buttons, Illuminated Push-Pull and Twist or Pull Release Push Buttons |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cat. No. Suffix $\ddagger$ | Description | Transformer Type |  |  | Full Voltage or Neon Type |  |  |
|  |  | Dimension |  | Shipping Weight | Dimension |  | Shipping Weight |
| D4 | Transformer or Terminal Module and One Shallow Contact Block | A | $\begin{aligned} & \hline 2-5 / 32 \\ & (54.8) \S \end{aligned}$ | $\begin{gathered} 9 \mathrm{oz} . \\ (0.25 \mathrm{~kg}) \end{gathered}$ | A | $\begin{aligned} & 2-1 / 32 \\ & (51.6) * \end{aligned}$ | $\begin{gathered} 7 \mathrm{oz} . \\ (0.20 \mathrm{~kg}) \end{gathered}$ |
| A1 and A7 | Transformer or Terminal Module, One Shallow Block and One Mini Contact Block | B | $\begin{gathered} 2-7 / 8 \\ (73) \end{gathered}$ | $\begin{gathered} 10 \mathrm{oz} . \\ (0.28 \mathrm{~kg}) \end{gathered}$ | B | $\begin{gathered} 2-7 / 8 \\ (73) \end{gathered}$ | $\begin{gathered} 8 \mathrm{oz} . \\ (0.22 \mathrm{~kg}) \end{gathered}$ |
| AP | Transformer or Terminal Module and One Sealed Switch Contact Block | B | $\begin{gathered} 2-29 / 32 \\ (73.8) \end{gathered}$ | $\begin{gathered} 10 \mathrm{oz} . \\ (0.28 \mathrm{~kg}) \end{gathered}$ | B | $\begin{gathered} 2-29 / 32 \\ (73.8) \end{gathered}$ | $\begin{gathered} 8 \mathrm{oz} . \\ (0.22 \mathrm{~kg}) \end{gathered}$ |

$\star$ Jumbo mushroom versions are 2-1/4 in. ( 57.2 mm ) diameter.
$\ddagger$ Applies to illuminated push-pull push buttons only.
§ Dual input type pilot light dimension is $2-13 / 32 \mathrm{in}$. ( 61.1 mm ).

* Dual input type pilot light dimension is 2-9/32 in. (57.9 mm).

Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Accessories


Push Button Padlocking Cover
(not for use with Jumbo Mushroom Head devices) Shipping Wt. 1 oz ( 0.03 kg )


Selector Switch and Potentiometer Unit Padlocking Cover


Protective Ring and Push-Pull Illuminated or Non-Illuminated Operators


Selector Switch Padlocking Attachment


Push-Pull Padlocking Attachment and Metal Mushroom Push Button Padlocking Attachment


Ramp Guard for Push-Pull Illuminated or Non-Illuminated Operators

Accessories (Bul. 800H Only)


Locking Attachment for Extended, Non-Illuminated Push Buttons


[^3]

800H-N140 Locking Cover for 2-Position Non-Illuminated Maintained Twist or Pull Release and Standard Knob Selector Switch (1-5/8 (41.3) Mushroom Head only)


Push-Pull/Twist Padlocking Attachment

Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Die Cast Enclosures (Bul. 800T Only)


Note: Mounting holes (4) — Screw shaft 13/64 in. (5.16 mm) max. diameter.


Note: Mounting holes (4) — Screw shaft 7/32 in. ( 5.56 mm ) max. diameter.

F Dimension

| Type of Unit |  | Dimension F |
| :---: | :---: | :---: |
| Push Buttons | Flush Extended Extended Mushroom Selector Cylinder Lock | $\begin{gathered} \hline 15 / 32(11.9) \\ 21 / 32(16.7) \\ 1(25.4) \\ 7 / 8(22.2) \\ 1-13 / 16(46) \end{gathered}$ |
| Selector Switches | Standard Cylinder Lock Coin Slot | $\begin{gathered} \hline 1-7 / 32(30.9) \\ 2-7 / 16(61.9) \\ 3 / 4(19.1) \end{gathered}$ |
| Pilot Light |  | 1-1/8 (28.6) |
| Potentiometers |  | 1-1/16 (27) |

## Conduit Openings

| General Class | Description | No. of Units ${ }^{\text {k }}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1... 4 | 6 | 9 | 12 | 16 | 20 | 25 |
| Surface <br> Mounted <br> Enclosure | Die Cast | $\begin{aligned} & 3 / 4 \mathrm{in} . \\ & 14 \text { N.P.T. } \end{aligned}$ | $\begin{gathered} 1 \mathrm{in} . \\ 11-1 / 2 \text { N.P.T. } \end{gathered}$ | $\begin{gathered} 1 \mathrm{in} . \\ 11-1 / 2 \text { N.P.T. } \end{gathered}$ | $\begin{gathered} 1 \mathrm{in} . \\ 11-1 / 2 \text { N.P.T. } \end{gathered}$ | $\begin{gathered} \text { 1-1/2 in. } \\ \text { 11-1/2 N.P.T. } \end{gathered}$ | - | - |

[^4]Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Enclosures (Bul. 800T Only), Continued

Pendant Stations


## Sheet Metal Enclosures



Note: Mounting holes (4) — Screw shaft 7/32 in. ( 5.56 mm ) max. diameter.

## F Dimension

| Type of Unit |  | Dimension F |
| :---: | :---: | :---: |
| Push Buttons | Flush Extended Extended Mushroom Selector Cylinder Lock | $\begin{gathered} \hline 15 / 32(11.9) \\ 21 / 32(16.7) \\ 1(25.4) \\ 7 / 8(22.2) \\ 1-13 / 16(46) \\ \hline \end{gathered}$ |
| Selector Switches | Standard Cylinder Lock Coin Slot | $\begin{gathered} \hline 1-7 / 32(30.9) \\ 2-7 / 16(61.9) \\ 3 / 4(19.1) \end{gathered}$ |
| Pilot Light |  | 1-1/8 (28.6) |
| Potentiometers |  | 1-1/16 (27) |

## Conduit Openings

| General Class | Description | No. of Units ${ }^{\text {® }}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1... 4 | 6 | 9 | 12 | 16 | 20 | 25 |
| Surface Mounted Enclosure | Sheet Metal | None - Drilled to suit by customer. |  |  |  |  |  |  |
| Pendant Type Enclosure | with Opening in Bottom | No. of Units $\star$ |  |  |  |  |  |  |
|  |  | 2... 5 |  |  | 6... 10 |  |  |  |
|  |  | 1 (25.4) Conduit Hub |  |  | 1-1/4 (31.8) Conduit Hub |  |  |  |
|  | with Opening in Cover | 1 (25.4) Conduit Hub |  |  | 1-1/4 (31.8) Conduit Hub |  |  |  |

[^5]Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Enclosures (Bul. 800H Only)


Type 4/4X/13 Stainless Steel
Watertight, Oiltight, Corrosion Resistant Enclosure


Type 4/4X/13 Rosite Glass Polyester Watertight, Oiltight, Corrosion Resistant Enclosure

| Dimension | Type 4/4X/13 Stainless Steel |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Units |  |  |  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 |  | 7 | 8 |
| A | $\begin{gathered} \hline 5-5 / 32 \\ (131) \end{gathered}$ | $\begin{gathered} 7 \\ (177.8) \end{gathered}$ | $\begin{aligned} & 8-27 / 32 \\ & (224.6) \end{aligned}$ | $\begin{gathered} \hline 10-11 / 16 \\ (271.5) \end{gathered}$ | $\begin{gathered} \hline 12-17 / 32 \\ (318.3) \end{gathered}$ | $\begin{aligned} & \hline 14-3 / 8 \\ & (365.1) \end{aligned}$ |  | $\begin{gathered} \hline 16-7 / 32 \\ (412) \end{gathered}$ | $\begin{aligned} & \hline 18-1 / 16 \\ & (458.8) \end{aligned}$ |
| B | $\begin{gathered} 6-13 / 32 \\ (162.7) \end{gathered}$ | $\begin{gathered} 8-1 / 4 \\ (209.6) \end{gathered}$ | $\begin{aligned} & 10-1 / 8 \\ & (257.2) \end{aligned}$ | $\begin{gathered} 11-31 / 32 \\ (304) \end{gathered}$ | $\begin{aligned} & 14-1 / 32 \\ & (356.4) \end{aligned}$ | $\begin{aligned} & 15-7 / 8 \\ & (403.2) \end{aligned}$ |  | $\begin{aligned} & \hline 17-3 / 4 \\ & (450.8) \end{aligned}$ | $\begin{gathered} \hline 19-19 / 32 \\ (497.7) \end{gathered}$ |
| C | - |  |  |  | - |  |  |  |  |
| Conduit Knockout Size | - |  |  |  | - |  |  |  |  |
| Pipe Tap Size | $\begin{gathered} \hline 3 / 4 \\ (19.1) \end{gathered}$ |  |  |  | $\begin{gathered} 1 \\ (25.4) \end{gathered}$ |  |  |  |  |
| Approximate Shipping Wt. [lbs (kg)] | $\begin{gathered} 2-3 / 4 \\ (1.3) \end{gathered}$ | $\begin{gathered} 3-3 / 4 \\ (1.7) \end{gathered}$ | $\begin{gathered} 4-3 / 4 \\ (2.2) \end{gathered}$ | $\begin{gathered} 5-3 / 4 \\ (2.6) \end{gathered}$ | $\begin{gathered} 6-3 / 4 \\ (3.1) \end{gathered}$ | $\begin{gathered} 7-3 / 4 \\ (3.5) \end{gathered}$ |  | $8-3 / 4$ <br> (4) | $\begin{gathered} 9-3 / 4 \\ (4.4) \end{gathered}$ |
|  |  |  |  |  |  |  |  |  |  |
|  | Type 4/4X/13 Rosite |  |  |  |  |  |  |  |  |
|  | Number of Units |  |  |  |  |  |  |  |  |
| Dimension | 1 |  | 2 | 3 | 4 | 5 |  |  | 6 |
| A | $4-1 / 2$ $4-1 / 2$ <br> $(114.3)$ $(114.3)$ |  |  | $\begin{gathered} \hline 6-1 / 4 \\ (158.8) \end{gathered}$ | $\begin{gathered} 8 \\ (203.2) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 12-1 / 8 \\ (308) \\ \hline \end{gathered}$ |  |  | $\begin{gathered} \hline 12-1 / 8 \\ (308) \end{gathered}$ |
| B | $7-1 / 32$ $7-1 / 32$ <br> $(178.6)$ $(178.6)$ |  |  | $\begin{gathered} 8-23 / 32 \\ (221.5) \end{gathered}$ | $\begin{gathered} 10-21 / 32 \\ (270.7) \end{gathered}$ | $\begin{aligned} & 14-7 / 8 \\ & (377.8) \end{aligned}$ |  |  | $\begin{aligned} & 14-7 / 8 \\ & (377.8) \end{aligned}$ |
| C | $5-7 / 8$ $5-7 / 8$ <br> $(149.2)$ $(149.2)$ |  |  | $\begin{gathered} 7-9 / 16 \\ (192) \end{gathered}$ | $\begin{gathered} \hline 9-1 / 2 \\ (241.8) \\ \hline \end{gathered}$ | $\begin{aligned} & 13-1 / 2 \\ & (342.9) \end{aligned}$ |  |  | $\begin{aligned} & 13-1 / 2 \\ & (342.9) \end{aligned}$ |
| Conduit Knockout Size | - |  |  |  |  | - |  |  |  |
| Pipe Tap Size | $\begin{gathered} 3 / 4 \\ (19.1) \\ \hline \end{gathered}$ |  |  |  |  | $\begin{gathered} 1 \\ (25.4) \\ \hline \end{gathered}$ |  |  |  |
| Approximate Shipping Wt. [lbs (kg)] | $\begin{gathered} 2 \\ (0.9) \end{gathered}$ |  | $\begin{gathered} 2 \\ (0.9) \end{gathered}$ | $\begin{gathered} 2-1 / 2 \\ (1.1) \end{gathered}$ | $\begin{gathered} 3 \\ (1.4) \end{gathered}$ | $\begin{gathered} 4 \\ (1.8) \end{gathered}$ |  |  | $\begin{gathered} 4 \\ (1.8) \end{gathered}$ |

Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.
Enclosures (Bul. 800H Only), Continued


Typical Pilot Light Wiring Diagrams
See applicable codes and laws


Push-to-Test Pilot Light Device Schematic


Dual Input Pilot Light Typical Application Wiring Diagram


Dual Input Diode Pilot Light Device Schematic


Dual Input Pilot Light Transformer Type Device Schematic

## General Purpose Enclosures

|  |  |
| :---: | :---: |
| Bulletin | 800 H |
| Description | Push Button Enclosure |
| Features | Designed to house 30.5 mm (Bul. 800H) push buttons (available in grey or yellow colors) |
| Dimensions [mm] | Available in 4 sizes (Height $\times$ Width $\times$ Depth) <br> 1-Hole: $110 \times 80 \times 70$ <br> 2-Hole: $130 \times 80 \times 85$ <br> 3-Hole: $180 \times 80 \times 85$ <br> 4-Hole: $250 \times 80 \times 85$ |
| Degree of Protection | Type 1, 4, 4X, 12, 13 <br> IP66 Indoor/Outdoor |
| Storage Temperature Range | $-40 \ldots+75{ }^{\circ} \mathrm{C}\left(-40 \ldots+158{ }^{\circ} \mathrm{F}\right)$ |
| Operating Temperature Range | $-40 \ldots+55^{\circ} \mathrm{C}\left(-40 \ldots+131^{\circ} \mathrm{F}\right)$ |
| Material |  |
| Enclosure | Thermoplastic polyester blend, UL94-5VA |
| Gasket | Foam-in-place polyutherane |
| Standards | UL 508A and CSA C22.2, No. 14 |
| Certifications | cULus, CE |

Approximate Dimensions
Dimensions are shown in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.


Thermoplastic Polyester Type 4/4X

|  | Overall Dimension |  |  |  | Inside Dimension |  |  |  | Enclosure Mounting Dimension |  | Mounting Plate Mounting Dim. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cat. No. | H | W | D1 | D2 | A | B | C1 | C2 | E | F | G |
| $800 \mathrm{H}-1 \mathrm{HZ4}$ | $\begin{gathered} \hline 110 \\ (4.33) \end{gathered}$ | $\begin{gathered} 80 \\ (3.15) \end{gathered}$ | $\begin{gathered} 50 \\ (1.97) \end{gathered}$ | $\begin{gathered} 20 \\ (0.79) \end{gathered}$ | $\begin{gathered} 104 \\ (4.09) \end{gathered}$ | $\begin{gathered} 74 \\ (2.91) \end{gathered}$ | $\begin{aligned} & 46.5 \\ & (1.83) \end{aligned}$ | $\begin{gathered} 16.5 \\ (0.65) \end{gathered}$ | $\begin{gathered} 92 \\ (3.62) \end{gathered}$ | $\begin{gathered} 62 \\ (2.44) \end{gathered}$ | $\begin{gathered} 80 \\ (3.15) \end{gathered}$ |
| 800H-2HZ4 | $\begin{gathered} 130 \\ (5.12) \end{gathered}$ | $\begin{gathered} 80 \\ (3.15) \end{gathered}$ | $\begin{gathered} 50 \\ (1.97) \end{gathered}$ | $\begin{gathered} 35 \\ (1.38) \end{gathered}$ | $\begin{gathered} 120 \\ (4.72) \end{gathered}$ | $\begin{gathered} 70 \\ (2.76) \end{gathered}$ | $\begin{gathered} 46.5 \\ (1.83) \end{gathered}$ | $\begin{gathered} 31.5 \\ (1.24) \end{gathered}$ | $\begin{gathered} 112 \\ (4.41) \end{gathered}$ | $\begin{gathered} 62 \\ (2.44) \end{gathered}$ | $\begin{gathered} 100 \\ (3.94) \end{gathered}$ |
| 800H-3HZ4 | $\begin{gathered} 180 \\ (7.09) \end{gathered}$ | $\begin{gathered} 80 \\ (3.15) \end{gathered}$ | $\begin{gathered} 50 \\ (1.97) \end{gathered}$ | $\begin{gathered} 35 \\ (1.38) \end{gathered}$ | $\begin{gathered} 170 \\ (6.69) \end{gathered}$ | $\begin{gathered} 70 \\ (2.76) \end{gathered}$ | $\begin{gathered} 46.5 \\ (1.83) \end{gathered}$ | $\begin{gathered} 31.5 \\ (1.24) \end{gathered}$ | $\begin{gathered} 162 \\ (6.38) \end{gathered}$ | $\begin{gathered} 62 \\ (2.44) \end{gathered}$ | $\begin{gathered} 150 \\ (5.91) \end{gathered}$ |
| 800H-4HZ4 | $\begin{gathered} 250 \\ (9.84) \end{gathered}$ | $\begin{gathered} 80 \\ (3.15) \end{gathered}$ | $\begin{gathered} 50 \\ (1.97) \end{gathered}$ | $\begin{gathered} 35 \\ (1.38) \end{gathered}$ | $\begin{gathered} 240 \\ (9.45) \end{gathered}$ | $\begin{gathered} 70 \\ (2.76) \end{gathered}$ | $\begin{gathered} 46.5 \\ (1.83) \end{gathered}$ | $\begin{gathered} 31.5 \\ (1.24) \end{gathered}$ | $\begin{gathered} 232 \\ (9.13) \end{gathered}$ | $\begin{gathered} 62 \\ (2.44) \end{gathered}$ | $\begin{gathered} 220 \\ (8.66) \end{gathered}$ |

Dimensions are shown in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.
Push Button Hole

30.5 mm Push Button Hole

## Push Button Hole Spacing



| Cat. No. | Type | A | B | C | D | E | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 800H-1HZ4C | 1-Hole | $\begin{gathered} 55 \pm .216 \\ (2.165 \pm 0.0085) \end{gathered}$ | $\begin{gathered} 40 \pm 0.5 \\ (1.57 \pm 0.020) \end{gathered}$ | - | $\begin{gathered} 46.8 \pm 0.191 \\ (1.843 \pm 0.0075) \end{gathered}$ | - | - |
| $800 \mathrm{H}-2 \mathrm{HZ4C}$ | 2-Hole | - |  | $\begin{gathered} 41.6 \pm 0.175 \\ (1.64 \pm 0.0069) \end{gathered}$ |  | - | - |
| 800H-3HZ4C | 3-Hole | - |  | - |  | $\begin{gathered} 43.2+0.32 /-0.18 \\ (1.7+0.0126 /- \\ 0.0071) \\ \hline \end{gathered}$ | - |
| 800H-4HZ4C | 4-Hole | - |  | - |  | - | $\begin{gathered} 54.8 \pm 0.216 \\ (2.16 \pm 0.0085) \\ \hline \end{gathered}$ |

## Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

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[^0]:    $\ddagger$ One insert of each color (blue, green, orange, red, and yellow).
    § Target tables are reversed from those shown.

    * Only available on Bul. 800T, Type 4/13 operators.
    $\Delta$ Contact target tables same as those listed for standard contact blocks.

[^1]:    § LEDs available in red, green, amber, blue, and white. White LEDs only available in 6V, 24 V , 120V, and 130 V full voltage and all transformer units. LED color matches lens color, except clear lens supplied with white LED and white lens supplied with amber LED. All LEDs except 120V have an internal shunt resistor for use with solid-state outputs.

    * Contact blocks used on white side only.

[^2]:    夫 Except jumbo which is 2-1/4 (57.2).

[^3]:    Non-Illuminated Selector Switch Padlocking Adjustment

[^4]:    $\star$ Number of units that can be mounted in the enclosure.

[^5]:    $\star$ Number of units that can be mounted in the enclosure.

