## MICRO SWITCH Rocker Switches



## DESCRIPTION

Honeywell MICRO SWITCH TP rocker switches are designed for flush mount to the panel for a low profile button or above panel for a distinctive button appearance. The buttons are removable and interchangeable and are available in either a transparent plastic (to accept legend inserts), or translucent plastic. Colored opaque buttons are also available for color coding of switch functions, for example, a green button for a "start" or "run" function and a black button for general purpose. The 1-, 2-, or 4-pole rocker switches are furnished with two 6-32 internal locking threads in the rocker cover which will accept 6-32 machine screws for panel mounting. To maximize applications and minimize inventory, the TP rocker switches are readily available without buttons. Ordering the buttons separately permits them to be paired with switches containing the desired circuitry and number of poles.

## FEATURES

- 1,2, or 4 poles
- 2- or 3-actuator positions with maintained or momentary action
- Standard silver alloy contacts for power-duty switching; gold-plated contacts for low energy/processorbased circuits (milliamps)
- Above panel or flush panel mounting
- Mounts to panels with two machine screws to maintain panel integrity
- Step-base design and barriers between poles minimizes possibility of electrical bridging
- Combination head terminal screws facilitate leadwire connections
- Rugged design
- Variety of opaque button colors or a transparent button that accepts legend inserts
- Wide temperature range: $-54^{\circ} \mathrm{C}$ to 71 ${ }^{\circ} \mathrm{C}\left[-65^{\circ} \mathrm{F}\right.$ to $\left.160^{\circ} \mathrm{F}\right]$
- UL, CSA, CE and UKCA certified for global applications


## POTENTIAL APPLICATIONS

- Flight decks for commercial and business jets
- Control panels for industrial machinery and equipment
- Operator interface controls for marine vehicles
- Main and auxiliary control panels for road construction equipment
- Agriculture equipment


## VALUE TO CUSTOMERS

- 2- and 3-position maintained and momentary rocker switch actions
- Up to four poles per switch to provide control, signaling, and redundant circuits as required


## PORTFOLIO

Honeywell offers two Series of MICRO SWITCH rocker switches: TP Series and AML Series.

## MICRO SWITCH ROCKER SWITCHES, TP SERIES

| Characteristic | Parameter |
| :---: | :---: |
| Description | commercial grade rocker switches |
| Housing material | glass-filled thermoplastic nylon 6/6 |
| Sealing | switch chamber sealed from environment |
| Operating temperature | $-54{ }^{\circ} \mathrm{C}$ to $71{ }^{\circ} \mathrm{C}\left[-65^{\circ} \mathrm{F}\right.$ to $\left.160^{\circ} \mathrm{F}\right]$ |
| Mounting | two 6-32 internal threads with lead-in and thread locking feature on 46 mm [1.81 in] centers panel cutout $38,4 \mathrm{~mm} \times 23,9 \mathrm{~mm}$ [1.51 in $\times 0.94 \mathrm{in}$ ] |
| Switch/button action | 2- or 3-position, maintained or momentary action |
| Circuitry | SPST, SPDT, DPST, DPDT, 4PST, 4PDT |
| Termination | screw (6-32 threads), quick-connect (6,35 mm [0.25 in]), and IWTS |
| Contact material | silver alloy or gold plated |
| Electrical rating (amps) | up to 20 A resistive (see tables below) |
| Approvals/certifications | CE, UKCA, CSA, UL |


| Rating Code* | Electrical Rating |
| :---: | :---: |
| L192 ${ }^{1}$ | $10 \mathrm{~A}, 125,250,277 \mathrm{Vac} ; 1 / 4 \mathrm{HP}, 125 \mathrm{Vac} ; 1 / 2 \mathrm{HP}, 250,277 \mathrm{Vac} ;$ 3 A, 125 Vac Lamp (Incandescent) |
| L191² | 15 A, 125, 250, 277 Vac; $1 / 2$ HP, $125 \mathrm{Vac} ; 1 \mathrm{Hp}, 250,277 \mathrm{Vac} ;$ $5 \mathrm{~A}, 125 \mathrm{Vac}$ Lamp (Incandescent) |

* Reference order guides on pages 3 and 4.
${ }^{1}$ Any rocker switch with momentary button action.
${ }^{2}$ Rocker switch with maintained button action only.

| TABLE 3. ELECTRICAL RATINGS (AMPS) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Electrical <br> Rating Code | 28 Vdc |  |  | $\frac{115 \text { Vdc }}{} \frac{\text { Res. }}{}$ | $\begin{gathered} 250 \text { Vdc } \\ \hline \text { Res. } \end{gathered}$ | $115 \mathrm{Vac}, 60$ \& 400 Hz |  |  | $\frac{230 \text { Vac }}{\text { Res. }}$ |
|  | Ind. | Res. | Lamp |  |  | Ind. | Res. | Lamp |  |
| 1 | 15 | 20 | 5 | 0.75 | 0.5 | 10 | 15 | 3 | 6 |
| 2 | 10 | 15 | 4 | 0.75 | 0.5 | 7 | 15 | 2 | 6 |
| 3 | 15 | 20 | 7 | 0.75 | 0.5 | 15 | 15 | 4 | 6 |
| 4 | 10 | 18 | 5 | 0.75 | 0.5 | 8 | 11 | 2 | 6 |
| 5 | 12 | 20 | 5 | 0.75 | 0.5 | 15 | 15 | 4 | 6 |
| 6 | 10 | 18 | 4 | 0.75 | 0.5 | 8 | 11 | 2 | 6 |

## CE, UKCA Electrical Ratings

10 (2) 250 Vac; 10 A resistive, 2 A inductive

## MICRO SWITCH ROCKER SWITCHES, TP SERIES

## TERMINAL CIRCUIT IDENTIFICATION

Terminal identifications are referred to in the order guides to indicate which circuits are made in each rocker position (i.e., $1-2$ refers to circuit closure through terminals 1 and 2 ).


Four Pole
$\sqrt{\text { LUG/RIB }_{\text {SIDE }} \sqrt{Q_{\text {COMMON }}(2,5,8,11)}}$

## CONSTRUCTION

Above panel mounting gives a distinct button appearance.
Flush panel mounting presents a low button profile.

## ROCKER INTERNAL COMPONENTS



ABOVE VS. FLUSH PANEL MOUNT COMPARISON


Flush panel mounting

## TP SERIES TWO-POSITION ORDER GUIDE



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## MICRO SWITCH ROCKER SWITCHES,

 TP SERIESTP SERIES THREE-POSITION ORDER GUIDE

|  |  | Circuits Made with Rocker Actuated at: |  |  | Catalog Listing without Button ${ }^{1}$ |  | Catalog Listing with Translucent White Button and Black Trim ${ }^{3}$ |  | Elec- <br> trical <br> Rating <br> Code ${ }^{2}$ | UL \& CSA <br> Electrical Code ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Poles | Identifying Lug/Rib | Center | Opposite Identifying Lug/Rib | Above <br> Panel | Flush Panel | Above Panel | Flush Panel |  |  |
|  | 1 | 1-2 | Off | 2-3 | 1TP7-1 | 1TP8-1 | - | 1TP1-1 | 1 | L191 |
|  | 1 | 1-2* | Off | 2-3 | 1TP7-5 | - | - | 1TP1-5 | 2 | L192 |
|  | 1 | 1-2* | Off | 2-3* | 1TP7-7 | 1TP8-7 | 1TP16-7 | 1TP1-7 | 2 | L192 |
|  | 2 | 1-2, 4-5 | Off | 2-3, 5-6 | 2TP7-1 | 2TP8-1 | 2TP16-1 | 2TP1-1 | 3 | L191 |
|  | 2 | 1-2, 4-5* | Off | 2-3, 5-6 | - | 2TP8-5 | 2TP16-5 | 2TP1-5 | 4 | L192 |
|  | 2 | 1-2, 4-5* | Off | 2-3, 5-6* | 2TP7-7 | 2TP8-7 | 2TP16-7 | 2TP1-7 | 4 | L192 |
|  | 2 | 1-2, 4-5 | 1-2, 5-6 | 2-3, 5-6 | - | 2TP8-10 | $\begin{gathered} \text { 2TP16- } \\ 10 \end{gathered}$ | $\begin{gathered} \text { 2TP1- } \\ 10 \end{gathered}$ | 3 | L191 |
| (without button) | 2 | 1-2, 4-5* | 1-2, 5-6 | 2-3, 5-6 | - | 2TP8-50 | $\begin{gathered} \text { 2TP16- } \\ 50 \end{gathered}$ | $\begin{gathered} \text { 2TP1- } \\ 50 \end{gathered}$ | 4 | L192 |
|  | 2 | 1-2, 4-5* | 1-2, 5-6 | 2-3, 5-6* | $\begin{gathered} \text { 2TP7- } \\ 70 \end{gathered}$ | 2TP8-70 | $\begin{gathered} \text { 2TP16- } \\ 70 \end{gathered}$ | $\begin{gathered} \text { 2TP1- } \\ 70 \end{gathered}$ | 4 | L192 |
|  | 4 | $\begin{gathered} 1-2,4-5 \\ 7-8,10-11^{*} \end{gathered}$ | Off | $\begin{gathered} 2-3,5-6, \\ 8-9,11- \\ 12^{\star} \end{gathered}$ | - | - | - | 4TP1-7 | 6 | L192 |
| $1$ | 4 | $\begin{gathered} 1-2,4-5 \\ 7-8,10-11 \end{gathered}$ | 2-3, 4-5 | $\begin{gathered} 2-3,5-6 \\ 8-9,11-12 \end{gathered}$ | - | 4TP8-10 | - | $\begin{gathered} \text { 4TP1- } \\ 10 \end{gathered}$ | 5 | L191 |
| (without button) | 4 | $\begin{gathered} 1-2,4-5 \\ 7-8,10-11 \end{gathered}$ | $\begin{gathered} 2-3,4-5 \\ 7-8,11-12 \end{gathered}$ | $\begin{gathered} 2-3,5-6 \\ 8-9,11-12 \end{gathered}$ | - | 4TP8-12 | - | - | 5 | L191 |

[^1]
## MICRO SWITCH ROCKER SWITCHES, TP SERIES

## TP SERIES FOUR-POLE, THREE-POSITION SPECIAL CIRCUITRY

Catalog listings with $-10,-12$, and -70 suffixes shown in the order guide (page 4) have special "On-On-On" circuitry as presented in the "three-position order guide". The catalog listings with the suffix type circuits identified can be installed to provide a different circuit "on" in each of the three different rocker positions.
Reference the following example for the 4TP8-10 three-position rocker switch.

| TABLE 6. CIRCUITS MADE WITH ROCKER ACTUATED AT: |  |  |
| :---: | :---: | :---: |
| Identifying Rib Position | Center Position | Opposite Identifying Rib Position |
| $1-2,4-5,7-8,10-11$ | $2-3,4-5$ | $2-3,5-6,8-9,11-12$ |


| TABLE 7. SUGGESTED CONNECTIONS FOR CIRCUIT IN EACH OF THREE DIFFERENT POSITIONS |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Switch Terminals | Identifying Rib Position | Center Position | Opposite Identifying Rib <br> Position |
| Circuit 10-11 | 1 | 0 | 0 |
| Circuit 2-3 wired in series with 4-5* | 0 | 1 | 0 |
| Circuit 8-9 | 0 | 0 | 1 |

1 = Circuit closed; $0=$ Circuit open

* Requires user to install a jumper between terminal \#2 and terminal \#5. Input and output terminals are \#3 and \#4.


## TP SERIES BUTTON ORDER GUIDE

| TABLE 8. BUTTON COLORS <br> Catalog <br> Listing | Color |
| :--- | :--- |
| 12PA6 | Translucent (white) |
| 12PA3 | Translucent (white) with black trim |
| 12PA4 | Transparent (colorless) |
| 12PA5-W | White** |
| 12PA5-Y | Yellow** |
| 12PA5-BK | Black** |
| 12PA5-G | Green** |
| 12PA5-R | Red** |
| 12PA5-BL | Blue** |

** Opaque color

## BUTTON OPTIONS

Buttons are removable and interchangeable. They measure
$\mathbf{2 2 , 1} \mathbf{~ m m} \times \mathbf{3 7 , 1} \mathbf{~ m m}$ [ $0.87 \mathrm{in} \times 1.46 \mathrm{in}$ ]. Transparent (colorless plastic) buttons accept under-the-surface legend inserts for station and function identification. Legend inserts are not furnished. Legend inserts can be furnished by a local supplier. Translucent (white plastic) buttons have a clear appearance with a white internal coating. Colored (opaque plastic) buttons are suitable for color coding switch functions.

## ORDERING SWITCHES WITH TRANSPARENT OR TRANSLUCENT BUTTONS

To order switches with a translucent or transparent button, convert the catalog listings per the following examples.

1. To order a switch with a translucent button (without the black trim) for above panel mounting, substitute TP216 for TP16. For example, a 1TP16-1 catalog listing would be converted to a 1TP216-1 catalog listing which includes a translucent button with above panel mounting.
2. To order a switch with a translucent button (without the black trim) for flush panel mounting, substitute TP201 for TP1. For example, a 1TP1-1 catalog listing would be converted to a 1TP201-1 catalog listing which includes a translucent button with flush panel mounting.
3. To order a switch with a transparent button for above panel mounting, substitute TP4 for TP16. For example, a $\mathbf{1 T P 1 6}-$ $\mathbf{1}$ catalog listing would be converted to a $\mathbf{1 T P 4 - 1}$ catalog listing which includes a transparent button with above panel mounting.
4. To order a switch with a transparent button for flush panel mounting, substitute TP12 for TP1. For example, a 1TP1-1 catalog listing would be converted to a 1TP12-1 catalog listing which includes a transparent button with flush panel mounting.

## MICRO SWITCH ROCKER SWITCHES, TP SERIES

## MICRO SWITCH TP SERIES DIMENSIONS

## Note: Various button styles shown

Figure 1. TP Series: Single pole, flush panel mounting


Figure 3. TP Series: Double pole, flush panel mounting


Figure 2. TP Series: Single pole, above panel mounting


Figure 4. TP Series: Double pole, above panel mounting


## MICRO SWITCH ROCKER SWITCHES, TP SERIES

## MICRO SWITCH TP SERIES DIMENSIONS

Note: Various button styles shown
Figure 5. TP Series: Four pole, flush panel mounting


Figure 7. TP Series: Panel cutout


Figure 6. TP Series: Four pole, above panel mounting


## ADDITIONAL MATERIALS

The following associated literature is available on the Honeywell web site at sps.honeywell.com/ast:

- Product range guide


## FOR MORE INFORMATION

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[^0]:    * These positions are momentary. All others are maintained.
    ${ }^{1}$ Order buttons from page 5, Table 8.
    ${ }^{2}$ Refer to page 2 for electrical ratings.
    ${ }^{3}$ Includes 12PA3 button.

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    ${ }^{1}$ Order buttons from page 5, Table 8.
    ${ }^{2}$ Refer to page 2 for electrical ratings.
    ${ }^{3}$ Includes 12PA3 button.

