MICRO SWITCH Rocker Switches
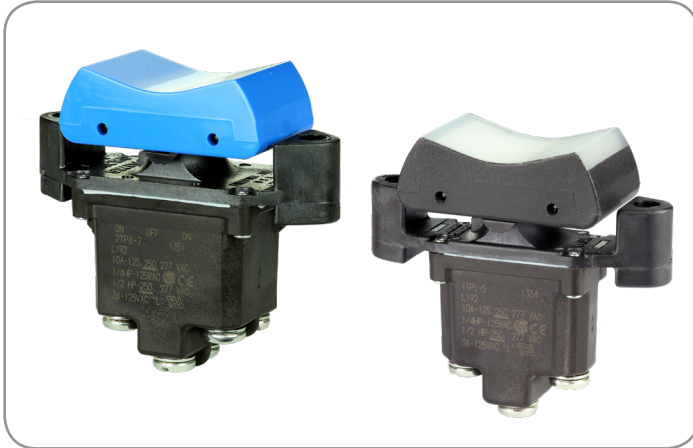TP Series

005438

Issue 1

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.

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

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/processor-based 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 °C to 71 °C [-65 °F to 160 °F]
- UL, CSA, and CE 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

PORTFOLIO

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

MICRO SWITCH Rocker Switches, TP Series

Table 1. Specifications

Characteristic	Parameter
Description	commercial grade rocker switches
Housing material	glass-filled thermoplastic nylon 6/6
Sealing	switch chamber sealed from environment
Operating temperature	-54 °C to 71 °C [-65 °F to 160 °F]
Mounting	two 6-32 internal threads with lead-in and thread locking feature on 46 mm [1.81 in] centers panel cutout 38,4 mm x 23,9 mm [1.51 in x 0.94 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, CSA, UL

Table 2. UL and CSA Electrical Ratings

Rating Code*	Electrical Rating
L192[1]	10 A, 125, 250, 277 Vac; 1/4 HP, 125 Vac; 1/2 HP, 250, 277 Vac; 3 A, 125 Vac Lamp (Incandescent)
L191[2]	15 A, 125, 250, 277 Vac; 1/2 HP, 125 Vac; 1 Hp, 250, 277 Vac; 5 A, 125 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)

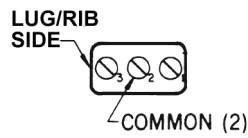| Electrical Rating Code	28 Vdc			115 Vdc	250 Vdc	115 Vac, 60 & 400 Hz			230 Vac
	Ind.	Res.	Lamp	Res.	Res.	Ind.	Res.	Lamp	Res.
1	15	20	5	0.75	0.5	10	15	3	6
2	10	15	4	0.75	0.5	7	15	2	6
3	15	20	7	0.75	0.5	15	15	4	6
4	10	18	5	0.75	0.5	8	11	2	6
5	12	20	5	0.75	0.5	15	15	4	6
6	10	18	4	0.75	0.5	8	11	2	6

CE Electrical Ratings
10 (2) 250 Vac; 10 A resistive, 2 A inductive

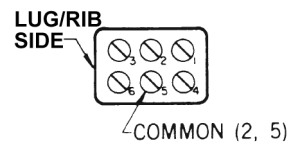# MICRO SWITCH Rocker Switches, TP Series

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).
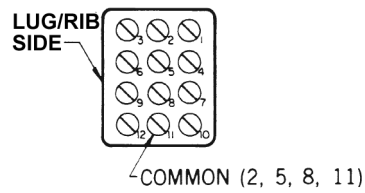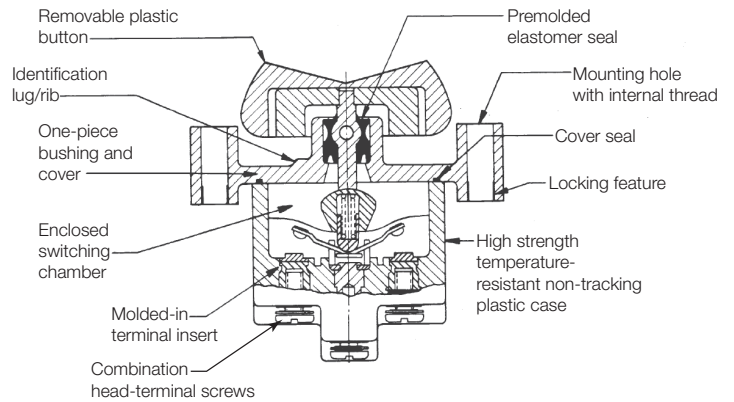
One Pole

LUG/RIB SIDE

COMMON (2)

Two Pole

LUG/RIB SIDE

COMMON (2, 5)

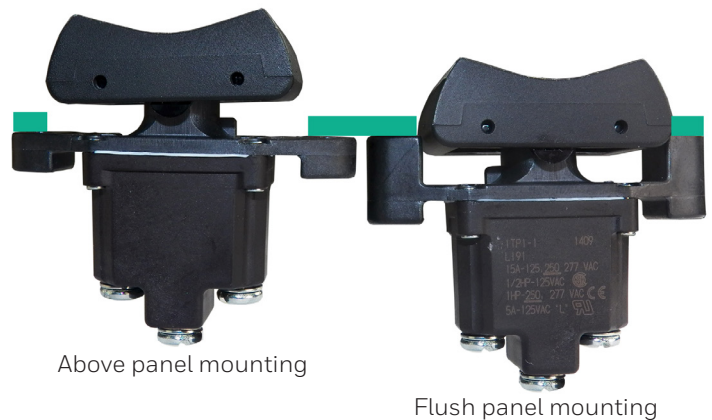**Four Pole**

LUG/RIB SIDE

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

Removable plastic button

Identification lug/rib

One-piece bushing and cover

Enclosed switching chamber

Molded-in terminal insert

Combination head-terminal screws

Premolded elastomer seal

Mounting hole with internal thread

Cover seal

Locking feature

High strength temperature-resistant non-tracking plastic case

ABOVE VS. FLUSH PANEL MOUNT COMPARISON

Above panel mounting

Flush panel mounting

TP SERIES TWO-POSITION ORDER GUIDE

Table 4. Two-Position TP Series

		Circuits Made with Rocker Actuated at:		Catalog Listing without Button[1]		Catalog Listing with Translucent White Button and Black Trim[3]		Elec-trical Rating Code[2]	UL & CSA Elec-trical Code[2]
	Number of Poles	Identifying Lug/Rib	Opposite Identifying Lug/Rib	Above Panel	Flush Panel	Above Panel	Flush Panel		
	1	Off	2-3	**1TP7-2**	**1TP8-2**	–	**1TP1-2**	1	L191
	1	1-2*	Off	–	**1TP8-6**	–	**1TP1-6**	2	L192
	1	1-2	2-3	–	**1TP8-3**	**1TP16-3**	**1TP1-3**	1	L191
	1	1-2*	2-3	–	**1TP8-8**	-	-	2	L192
	2	Off	2-3, 5-6	**2TP7-2**	**2TP8-2**	–	**2TP1-2**	3	L191
	2	1-2, 4-5	2-3, 5-6	**2TP7-3**	**2TP8-3**	**2TP16-3**	**2TP1-3**	3	L191
	2	1-2, 4-5*	2-3, 5-6	**2TP7-8**	**2TP8-8**	–	**2TP1-8**	4	L192
	4	1-2, 4-5, 7-8, 10-11	2-3, 5-6, 8-9, 11-12	–	**4TP8-3**	–	**4TP1-3**	5	L191

* 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.

MICRO SWITCH Rocker Switches, TP Series

TP SERIES THREE-POSITION ORDER GUIDE

Table 5. Three-Position TP Series

| | Number of Poles | Circuits Made with Rocker Actuated at: | | | Catalog Listing without Button[1] | | Catalog Listing with Translucent White Button and Black Trim[3] | | Electrical Rating Code[2] | UL & CSA Electrical Code[2] |
		Identifying Lug/Rib	Center	Opposite Identifying Lug/Rib	Above 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	2TP16-10	2TP1-10	3	L191
(without button)	2	1-2, 4-5*	1-2, 5-6	2-3, 5-6	-	2TP8-50	2TP16-50	2TP1-50	4	L192
	2	1-2, 4-5*	1-2, 5-6	2-3, 5-6*	2TP7-70	2TP8-70	2TP16-70	2TP1-70	4	L192
	4	1-2, 4-5, 7-8, 10-11*	Off	2-3, 5-6, 8-9, 11-12*	-	-	-	4TP1-7	6	L192
	4	1-2, 4-5, 7-8, 10-11	2-3, 4-5	2-3, 5-6, 8-9, 11-12	-	4TP8-10	-	4TP1-10	5	L191
(without button)	4	1-2, 4-5, 7-8, 10-11	2-3, 4-5, 7-8, 11-12	2-3, 5-6, 8-9, 11-12	-	4TP8-12	-	-	5	L191

* 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.

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 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

Catalog 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 22,1 mm x 37,1 mm [0.87 in x 1.46 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 **1TP16-1** catalog listing would be converted to a **1TP4-1** 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
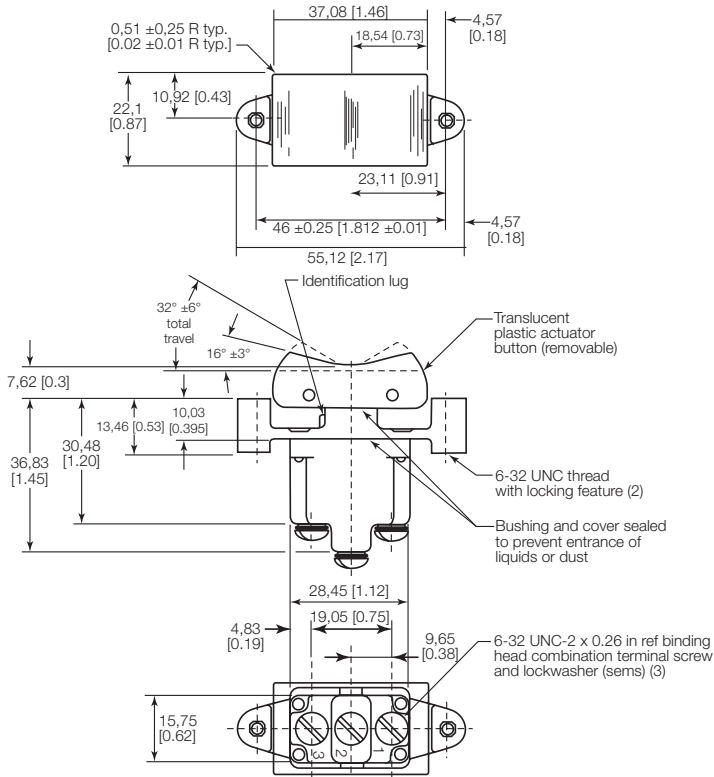

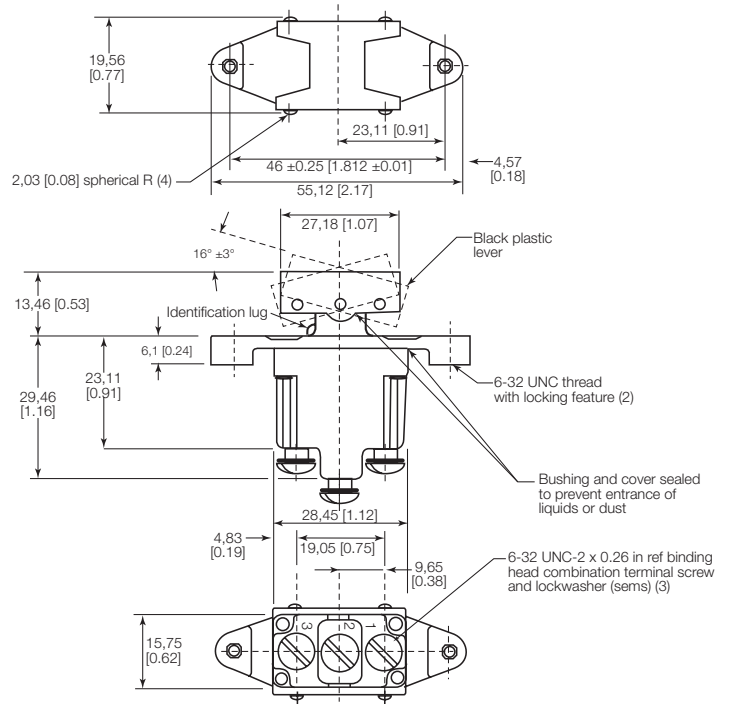**Figure 2. TP Series: Single pole, above panel mounting**

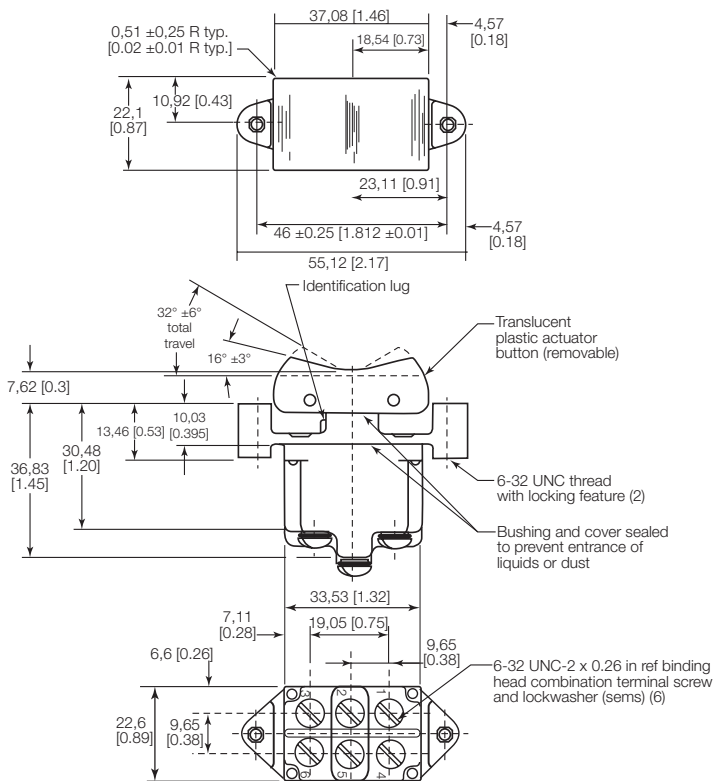
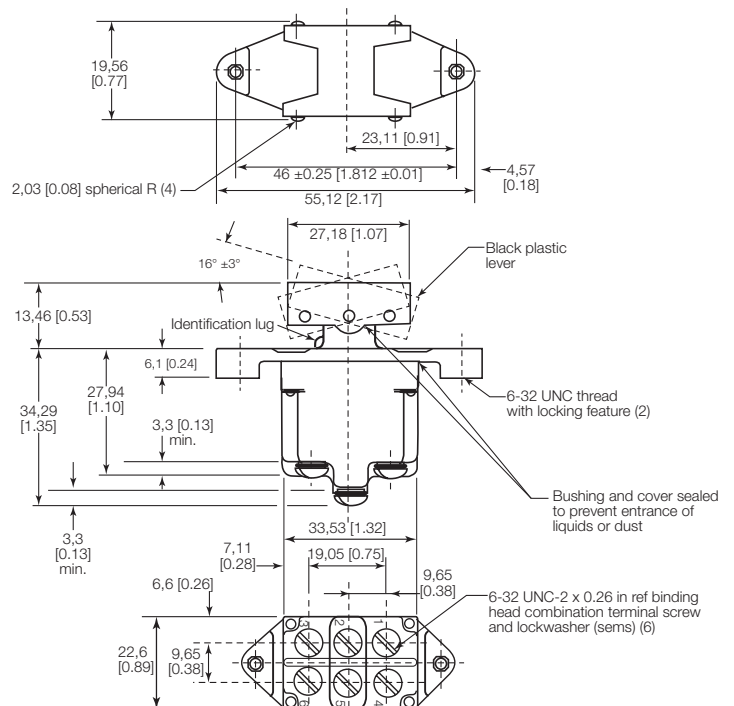**Figure 3. TP Series: Double pole, flush panel mounting**

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

MICRO SWITCH TP SERIES DIMENSIONS
Note: Various button styles shown

Figure 5. TP Series: Four pole, flush panel mounting
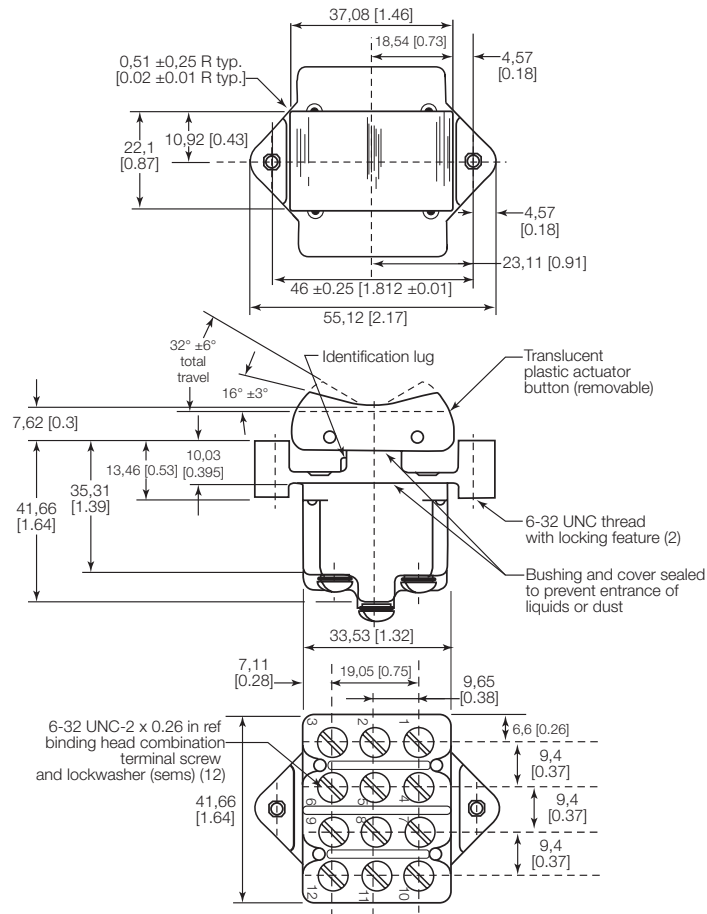

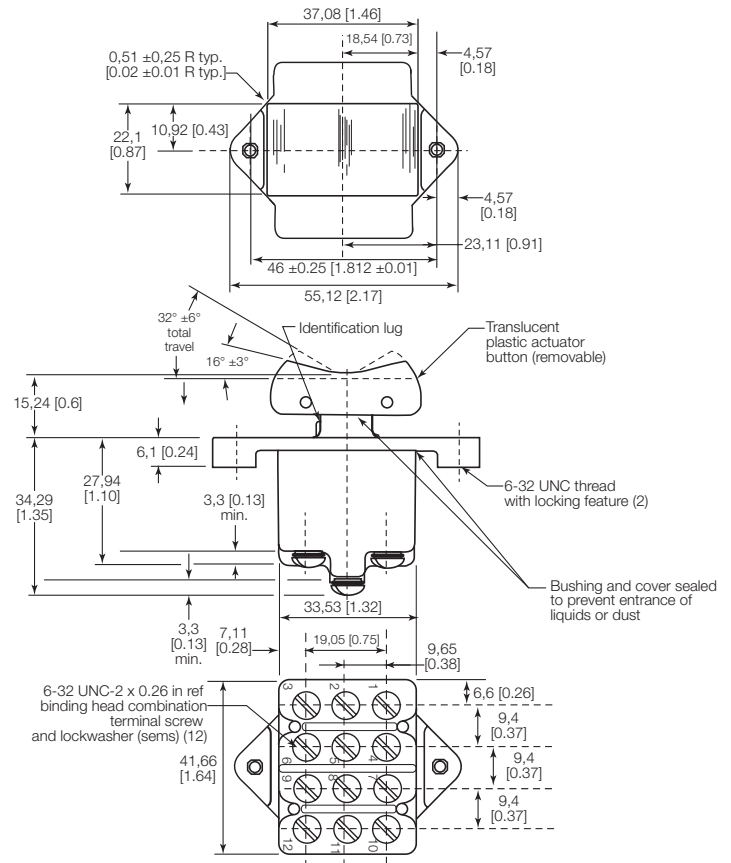**Figure 6. TP Series: Four pole, above panel mounting**
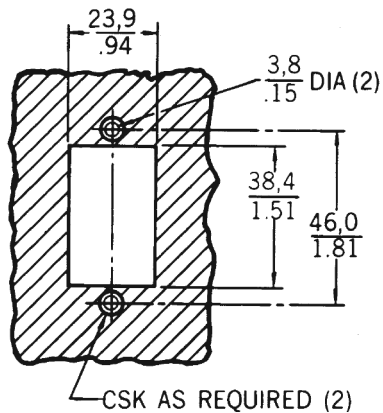

Figure 7. TP Series: Panel cutout

ADDITIONAL MATERIALS

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

- Product line guide
- Product range guide

For more information

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PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

⚠ **WARNING**
MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

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