Honeywell

THE POWER OF **CONNECTED**

# MICRO SWITCH Military-Grade Toggle Switches

TL Series

***005430***

*Issue 4*

**Datasheet**



## DESCRIPTION

Honeywell MICRO SWITCH TL Series toggle switches are military qualified to MIL-DTL-3950, specifications for sealed toggle switches. Quality construction features include a bonded seal between the toggle lever and bushing, and between the cover and case.

The robust design of the TL Series toggle is well-suited for many military, aerospace and other demanding applications where reliability is essential. These applications include environments where the panels are subjected to mechanical shock, vibration, and temperature extremes as well as environments with dust, splashing or hose-directed water.

TL Series toggle switches offer a variety of circuitry and pole options to easily integrate into a number of applications. A long history in military and aerospace applications has shown the TL Series toggle switches provide reliable performance with long operating life under the toughest conditions.

## VALUE TO CUSTOMERS

- MIL-DTL-3950 qualified switches available to meet military specifications
- Environmental sealing enables switches to withstand many demanding indoor and outdoor applications
- 1-, 2-, and 4-pole options for a variety of circuitry requirements
- 2- and 3-position, maintained and momentary toggle action to meet circuit and actuator requirements
- UL recognized, CSA certified, and CE approved for global use

## FEATURES

- MIL-DTL-3950 qualified
- 1-, 2-, and 4-pole options
- 2- and 3-position, maintained and momentary
- Wide temperature range: -65 °C to 71 °C [-85 °F to 160 °F]
- UL recognized, CSA certified, and CE approved
- Optional leverlocks
- Three termination options: screw, solder lugs, IWTS (Integrated Wire Termination System)
- Silver alloy or gold-plated contact options
- Engineered step-design case provides added space between terminals to prevent electrical shorting

## POTENTIAL APPLICATIONS

- Miliitary and commercial aircraft: fixed wing aircraft and helicopter flight decks
- Aviation ground support equipment: pumps, lights, and lift platforms
- Military land vehicles (track and wheeled vehicles): lights, pumps, arming equipment, and lifts/ramps, etc.
- Construction equipment: road milling, road pavers, trenchers, and stump cutters

## DIFFERENTIATION

- Robust construction: Built from military-grade components to achieve MIL-DTL-3950 requirements
- Locking levers reduce unintended actuation

## PORTFOLIO

Honeywell offers an extensive line of MICRO SWITCH toggle switches, including the following Series: MT, NT, TW, TS, AT, and ET.

**Table 1. Specifications**

| Characteristic | Parameter |
|---|---|
| Description | military-grade toggle switch |
| Sealing | qualified to MIL-DTL-3950 |
| Operating temperature | -65 °C to 71 °C [-85 °F to 160 °F] |
| Actuators | standard, locking, special design, tab |
| Action | 2- or 3- position; momentary and maintained |
| Mounting | Bushing 15/32 in (0.47 in) Ø |
| Circuitry | SPST, SPDT, DPST, DPDT, 4PST, 4PDT |
| Terminations | IWTS, solder, screw, quick-connect, leadwire |
| Contacts | Silver alloy or gold-plated |
| Amp rating | Up to 20 A, ac and dc capability |
| Approvals | UL, CSA, CE |
| Measurement | 26,7 mm H x 33,5 mm W x 22,6 mm D [1.05 in H x 1.32 in W x 0.89 in D] |

**Table 2. UL and CSA Electrical Ratings**

| Rating Code | Electrical Rating |
|---|---|
| L192 | 10 amps, 125, 250, 277 Vac; ¼ Hp, 125 Vac; ½ Hp, 250, 277 Vac; 3 amps, 125 Vac “L” |
| L191 | 15 amps, 125, 250, 277 Vac; ½ Hp, 125 Vac; 1 Hp, 250, 277 Vac; 5 amps, 125 Vac “L” |

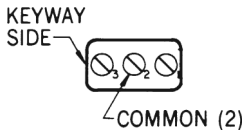
**Table 3. Electrical Ratings (in amperes)**

| Electrical rating code | 28 Vdc | | | 115 Vdc | 250 Vdc | 115 Vac, 60 Hz & 400 Hz Max. | | | 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 |

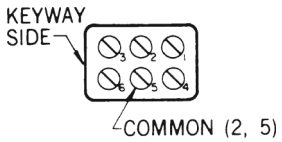
## TERMINAL CIRCUIT IDENTIFICATION

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

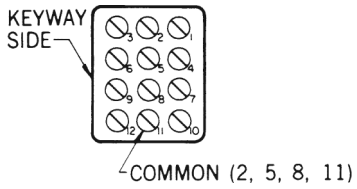
**One Pole**




**Two Pole**




**Four Pole**




## TERMINALS

In addition to the screw terminal listings in the order guides, IWTS (Integrated Wire Termination Systems) versions and solder turrent terminals are available.

IWTS provides a reliable, completely serviceable unit which meets MIL-DTL-3950 requirements. IWTS improves maintainability since wiring bundles need not be disturbed. Leads are quickly and easily assembled or removed with an insert-extract tool.

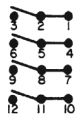
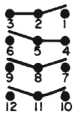
A unique three-rib (grommet style) elastomer seal protects the lead connections without potting. There are no exposed metal terminals.

Versions available that will accept No. 16 wire with M39029/1-102 contact pins or No. 20 wire with MS39029/1-101 contact pins. Connections are resistant to shock, vibration, and high pull-out force.

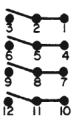
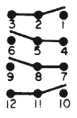
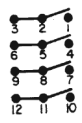
## SPECIAL CIRCUITRIES

Catalog listings with -10, -50, and -70 suffix numbers, as shown in the order guides, have special “on-on-on” circuits, as illustrated below. TLs with -12 suffix are the same as -50 except the keyway position is maintained. The -72 is the same as -50 except that the opposite keyway position is momentary.

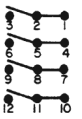
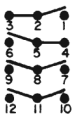
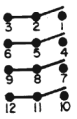
### -10 CIRCUITRY

| No of poles | Keyway Side Maint. Position | Center Maint. Position | Opposite Keyway Maint. Position |
|---|---|---|---|
| 2 |  |  |  |
| 4 |  |  |  |

### -50 CIRCUITRY

| No of poles | Keyway Side Momentary Position | Center Maint. Position | Opposite Keyway Maint. Position |
|---|---|---|---|
| 2 |  |  |  |
| 4 |  |  |  |

### -70 CIRCUITRY

| No of poles | Keyway Side Momentary Position | Center Maint. Position | Opposite Keyway Momentary Position |
|---|---|---|---|
| 2 |  |  |  |
| 4 |  |  |  |

## TL (SCREW TERMINAL) 2-POSITION ORDER GUIDE

| | Circuits Made with Toggle At: | | | | Standard Toggle | | Pull-to-Unlock Toggle | |
|---|---|---|---|---|---|---|---|---|
| No. of poles | Keyway Position | Opposite Keyway | Elect. Rating Code | UL Rating Code | Catalog Listing | Military Number | Add Suffix to Standard Toggle Listing Δ | Military Number** |
| 1 | OFF | 2-3 | 1 | L191 | 1TL1-2 | MS24523-22 | D, F, G | MS24658-22 |
| | OFF* | 2-3 | 2 | L192 | 1TL1-4 | MS24523-29 | F | MS24658-29 |
| | 1-2* | OFF | 2 | L192 | 1TL1-6 | MS24523-30 | F | MS24658-30 |
| | 1-2 | 2-3 | 1 | L191 | 1TL1-3 | MS24523-23 | D, F, G | MS24658-23 |
| | 1-2* | 2-3 | 2 | L192 | 1TL1-8 | MS24523-26 | F | MS24658-26 |
| 2 | OFF | 2-3, 5-6 | 3 | L191 | 2TL1-2 | MS24524-22 | D, F, G | MS24659-22 |
| | OFF* | 2-3, 5-6 | 4 | L192 | 2TL1-4 | MS24524-29 | F | MS24659-29 |
| | 1-2, 4-5* | OFF | 4 | L192 | 2TL1-6 | MS24524-30 | F | MS24659-30 |
| | 1-2, 4-5 | 2-3, 5-6 | 3 | L191 | 2TL1-3 | MS24524-23 | D, F, G | MS24659-23 |
| | 1-2, 4-5* | 2-3, 5-6 | 4 | L192 | 2TL1-8 | MS24524-26 | F | MS24659-26 |
| 4 | OFF | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 4TL1-2 | MS24525-22 | D, F, G | MS24660-22 |
| | OFF* | 2-3, 5-6, 8-9, 11-12 | 6 | L192 | 4TL1-4 | MS24525-29 | F | MS24660-29 |
| | 1-2, 4-5, 7-8, 10-11* | OFF | 6 | L192 | 4TL1-6 | MS24525-30 | F | MS24660-30 |
| | 1-2, 4-5, 7-8, 10-11 | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 4TL1-3 | MS24525-23 | D, F, G | MS24660-23 |
| | 1-2, 4-5*, 7-8, 10-11 | 2-3, 5-6, 8-9, 11-12 | 6 | L192 | 4TL1-8 | MS24525-26 | F | MS24660-26 |

* These positions are momentary. All others are maintained.
** Also add the appropriate suffix to the military number.
Δ See page 10 for locking configurations.

## PULL-TO-UNLOCK OPTION

When ordering pull-to-unlock toggle listings (see page 12 for configurations), add the suffix letter shown in the chart on page XXX to the standard toggle listing or the MS part number. For example, to order a 1TL1-1 pull-to-unlock toggle switch with the lever locked in the center position, add the letter **E** (i.e., 1TL1-1**E**, MS24658-21**E**)



## SOLDER TURRET TERMINAL VERSION

11TL, 12TL, and 14TL type switches with solder turrent terminals are qualified to MIL-DTL-3950. They have the same circuitry and electrical ratings as their 1TL, 2TL, and 4TL counterparts, For example, an 11TL1-2 is the same as a 1TL1-2, except it has solder turret terminals instead of screw terminals.

| Circuitry | Type | Standard Lever | Lever Lock |
|---|---|---|---|
| One pole | 11TL | MS27734 | MS27737 |
| Two pole | 12TL | MS27735 | MS27738 |
| Four pole | 14TL | MS27736 | MS27739 |

## TL (SCREW TERMINAL) 3-POSITION ORDER GUIDE

| | Circuits Made with Toggle At: | | | | | Standard Toggle | | Pull-to-Unlock Toggle | |
|---|---|---|---|---|---|---|---|---|---|
| No. of poles | Keyway Position | Center Position | Opposite Keyway | Elect. Rating Code | UL/CSA Rating Code | Catalog Listing | Military Number | Add Suffix to Standard Toggle Listing Δ | Military Number*** |
| 1 | 1-2 | OFF | 2-3 | 1 | L191 | 1TL1-1 | MS24523-21 | ALL TYPES | MS24658-21 |
| | 1-2* | OFF | 2-3 | 2 | L192 | 1TL1-5 | MS24523-31 | E, F, K, L, M, N | MS24658-31 |
| | 1-2* | OFF | 2-3* | 2 | L192 | 1TL1-7 | MS24523-27 | E, L, N | MS24658-27 |
| | NONE** | OFF | 2-3 | 1 | L191 | 1TL1-21 | MS24523-24 | E, F, K, M | MS24658-24 |
| | NONE** | 1-2 | 2-3 | 1 | L192 | 1TL1-31 | MS24523-33 | E, F, K, M | MS24658-33 |
| | NONE** | 1-2 | 2-3* | 2 | L192 | 1TL1-51 | MS24523-32 | E | MS24658-32 |
| | 1-2* | OFF | NONE** | 2 | L192 | 1TL1-61 | MS24523-28 | E | MS24658-28 |
| 2 | 1-2, 4-5 | OFF | 2-3, 5-6 | 3 | L191 | 2TL1-1 | MS24524-21 | ALL TYPES | MS24659-21 |
| | 1-2, 4-5* | OFF | 2-3, 5-6 | 4 | L192 | 2TL1-5 | MS24524-31 | E, F, K, L, M, N | MS24659-31 |
| | 1-2, 4-5* | OFF | 2-3, 5-6* | 4 | L192 | 2TL1-7 | MS24524-27 | E, L, N | MS24659-27 |
| | NONE** | OFF | 2-3, 5-6 | 3 | L191 | 2TL1-21 | MS24524-24 | E, F, K, M | MS24659-24 |
| | NONE** | 1-2, 4-5 | 2-3, 5-6 | 3 | L191 | 2TL1-31 | MS24524-33 | E, F, K, M | MS24659-33 |
| | NONE** | 1-2, 4-5 | 2-3, 5-6* | 4 | L192 | 2TL1-51 | MS24524-32 | E | MS24659-32 |
| | 1-2, 4-5* | OFF | NONE** | 4 | L192 | 2TL1-61 | MS24524-28 | E | MS24659-28 |
| | 1-2, 4-5 | 1-2, 5-6 | 2-3, 5-6 | 3 | L191 | 2TL1-10 | MS27407-4 | ALL TYPES | MS27408-4 |
| | 1-2, 4-5* | 1-2, 5-6 | 2-3, 5-6 | 4 | L192 | 2TL1-50 | MS27407-5 | E, F, K, L, M, N | MS27408-5 |
| | 1-2, 4-5* | 1-2, 5-6 | 2-3, 5-6* | 4 | L192 | 2TL1-70 | MS27407-6 | E, L, N | MS27408-6 |
| 4 | 1-2, 4-5, 7-8, 10-11 | OFF | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 4TL1-1 | MS24525-21 | ALL TYPES | MS24660-21 |
| | 1-2, 4-5, 7-8, 10-11* | OFF | 2-3, 5-6, 8-9, 11-12 | 6 | L192 | 4TL1-5 | MS24525-31 | E, F, K, L, M, N | MS24660-31 |
| | 1-2, 4-5, 7-8, 10-11* | OFF | 2-3, 5-6, 8-9, 11-12* | 6 | L192 | 4TL1-7 | MS24525-27 | E, L, N | MS24660-27 |
| | NONE** | OFF | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 4TL1-21 | MS24525-24 | E, F, K, M | MS24660-24 |
| | NONE** | 1-2, 4-5, 7-8, 10-11 | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 4TL1-31 | MS24525-33 | E, F, K, M | MS24660-33 |
| | NONE** | 1-2, 4-5, 7-8, 10-11 | 2-3, 5-6, 8-9, 11-12* | 6 | L192 | 4TL1-51 | MS24525-32 | E | MS24660-32 |
| | 1-2, 4-5, 7-8, 10-11* | OFF | NONE** | 6 | L192 | 4TL1-61 | MS24525-38 | E | MS24660-28 |
| | 1-2, 4-5, 7-8, 10-11 | 2-3, 4-5 | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 4TL1-10 | – | ALL TYPES | – |
| | 1-2, 4-5, 7-8, 10-11* | 2-3, 4-5, 7-8, 11-12 | 2-3, 5-6, 8-9, 11-12 | 6 | L192 | 4TL1-50 | MS27406-2 | E, F, K, L, M, N | MS27409-2 |
| | 1-2, 4-5, 7-8, 10-11* | 2-3, 4-5 | 2-3, 5-6, 8-9, 11-12* | 6 | L192 | 4TL1-70 | – | E, L, N | – |
| | 1-2, 4-5, 7-8, 10-11 | 2-3, 4-5, 7-8, 11-12 | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 4TL1-12 | MS27406-1 | ALL TYPES | MS27409-1 |
| | 1-2, 4-5, 7-8, 10-11* | 2-3, 4-5, 7-8, 11-12 | 2-3, 5-6, 8-9, 11-12* | 6 | L192 | 4TL1-72 | MS27406-3 | E, L, N | MS27409-3 |

* These positions are momentary. All others are maintained.
** Toggle lever is blocked from these products. Toggle becomes 2-position, with center being one extreme position.
*** Also add appropriate suffix letter to military number
Δ See page 10 for locking configurations.

## TL (IWTS TERMINATION) 2-POSITION ORDER GUIDE

| | Circuits Made with Toggle At: | | | | No. 16 Termination | | No. 20 Termination | |
|---|---|---|---|---|---|---|---|---|
| No. of poles | Keyway Position | Opposite Keyway | Elect. Rating Code | UL Rating Code | Catalog Listing | Military Number | Catalog Listing | Military Number |
| 1 | OFF | 2-3 | 1 | L191 | 101TL1-2 | MS27722-22 | 101TL2-2 | MS27784-22 |
| | OFF* | 2-3 | 2 | L192 | 101TL1-4 | MS27722-29 | 101TL2-4 | MS27784-29 |
| | 1-2* | OFF | 2 | L192 | 101TL1-6 | MS27722-30 | 101TL2-6 | MS27784-30 |
| | 1-2 | 2-3 | 1 | L191 | 101TL1-3 | MS27722-23 | 101TL2-3 | MS27784-23 |
| | 1-2* | 2-3 | 2 | L192 | 101TL1-8 | MS27722-26 | 101TL2-8 | MS27784-26 |
| 2 | OFF | 2-3, 5-6 | 3 | L191 | 102TL1-2 | MS27723-22 | 102TL2-2 | MS27785-22 |
| | OFF* | 2-3, 5-6 | 4 | L192 | 102TL1-4 | MS27723-29 | 102TL2-4 | MS27785-29 |
| | 1-2, 4-5* | OFF | 4 | L192 | 102TL1-6 | MS27723-30 | 102TL2-6 | MS27785-30 |
| | 1-2, 4-5 | 2-3, 5-6 | 3 | L191 | 102TL1-3 | MS27723-23 | 102TL2-3 | MS27785-23 |
| | 1-2, 4-5* | 2-3, 5-6 | 4 | L192 | 102TL1-8 | MS27723-26 | 102TL2-8 | MS27785-26 |
| 4 | OFF | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 104TL1-2 | MS27724-22 | 104TL2-2 | MS27786-22 |
| | OFF* | 2-3, 5-6, 8-9, 11-12 | 6 | L192 | 104TL1-4 | MS27724-29 | 104TL2-4 | MS27786-29 |
| | 1-2, 4-5, 7-8, 10-11* | OFF | 6 | L192 | 104TL1-6 | MS27724-30 | 104TL2-6 | MS27786-30 |
| | 1-2, 4-5, 7-8, 10-11 | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 104TL1-3 | MS27724-23 | 104TL2-3 | MS27786-23 |
| | 1-2, 4-5, 7-8, 10-11* | 2-3, 5-6, 8-9, 11-12 | 6 | L192 | 104TL1-8 | MS27724-26 | 104TL2-8 | MS27786-26 |

## TL (IWTS TERMINATION) 3-POSITION ORDER GUIDE

| | Circuits Made with Toggle At: | | | | | No. 16 Termination | | No. 20 Termination | |
|---|---|---|---|---|---|---|---|---|---|
| No. of poles | Keyway Position | Center Position | Opposite Keyway | Elect. Rating Code | UL/CSA Rating Code | Catalog Listing | Military Number | Catalog Listing | Military Number |
| 1 | 1-2 | OFF | 2-3 | 1 | L191 | 101TL1-1 | MS27722-21 | 101TL2-1 | MS27784-21 |
| | 1-2* | OFF | 2-3 | 2 | L192 | 101TL1-5 | MS27722-31 | 101TL2-5 | MS27784-31 |
| | 1-2* | OFF | 2-3* | 2 | L192 | 101TL1-7 | MS27722-27 | 101TL2-7 | MS27784-27 |
| 2 | 1-2, 4-5 | OFF | 2-3, 5-6 | 3 | L191 | 102TL1-1 | MS27723-21 | 102TL2-1 | MS27785-21 |
| | 1-2, 4-5* | OFF | 2-3, 5-6 | 4 | L192 | 102TL1-5 | MS27723-31 | 102TL2-5 | MS27785-31 |
| | 1-2, 4-5* | OFF | 2-3, 5-6* | 4 | L192 | 102TL1-7 | MS27723-6 | 102TL2-7 | MS27785-27 |
| 4 | 1-2, 4-5, 7-8, 10-11 | OFF | 2-3, 5-6, 8-9, 11-12 | 5 | L191 | 104TL1-1 | MS27724-21 | 104TL2-1 | MS27786-21 |
| | 1-2, 4-5, 7-8, 10-11* | OFF | 2-3, 5-6, 8-9, 11-12 | 6 | L192 | 104TL1-5 | MS27724-31 | 104TL2-5 | MS27786-31 |
| | 1-2, 4-5, 7-8, 10-11* | OFF | 2-3, 5-6, 8-9, 11-12* | 6 | L192 | 104TL1-7 | MS27724-27 | 104TL2-7 | MS27786-27 |

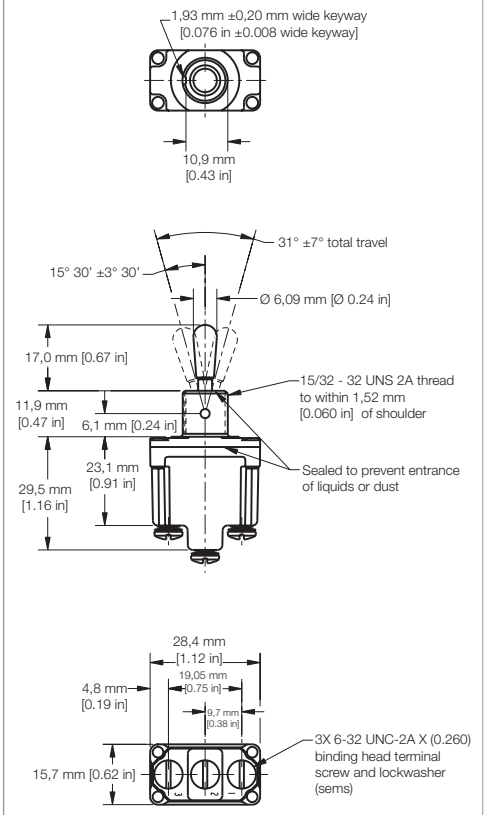
* These positions are momentary. All others are maintained.

NOTE: For TL switches featuring IWTS termination and a “pull-to-unlock” lever option, contact a Honeywell Sensing and Control representative at 1-800-537-6945.

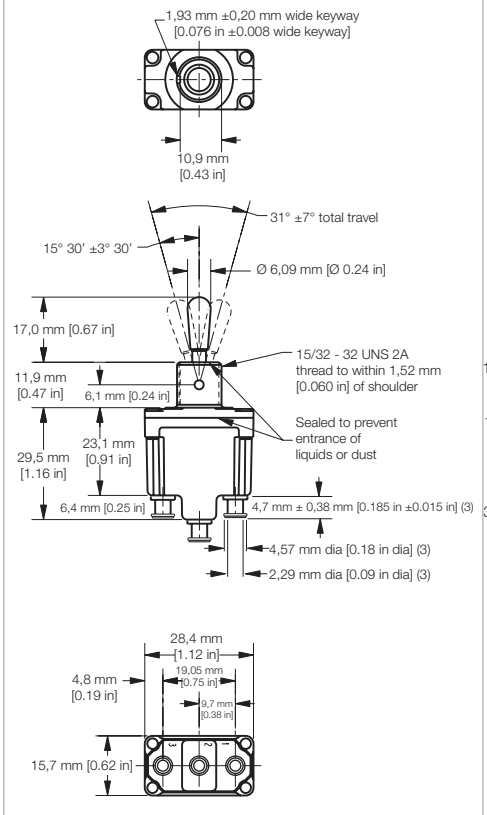
## TL SERIES 1-POLE STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

**Note: Three-position switches shown**

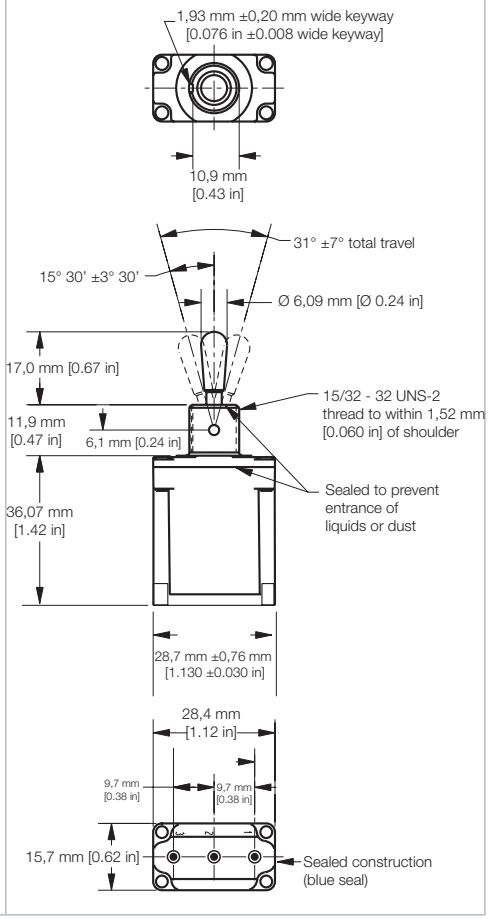
### 1TL1: Single pole, standard lever, screw terminals



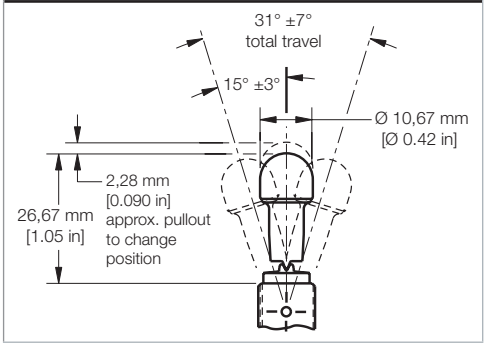

### 11TL1: Single pole, standard lever, solder terminals




### 101TL1: Single pole, standard lever, IWTS terminals



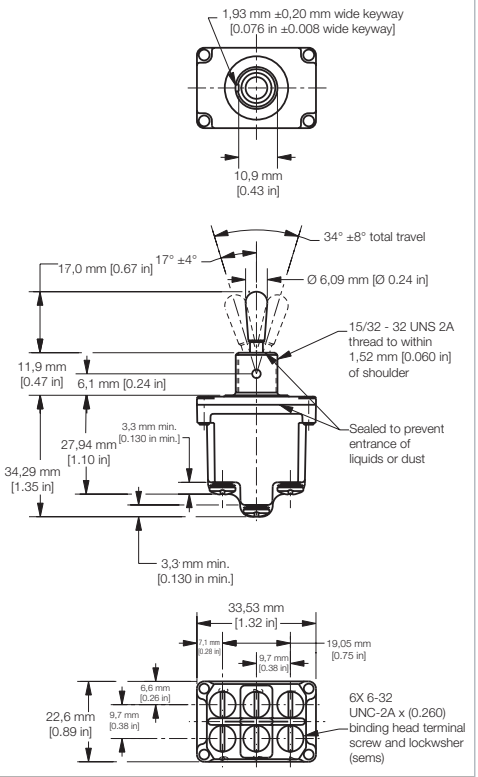

### Locking lever dimensions for single pole TL toggles



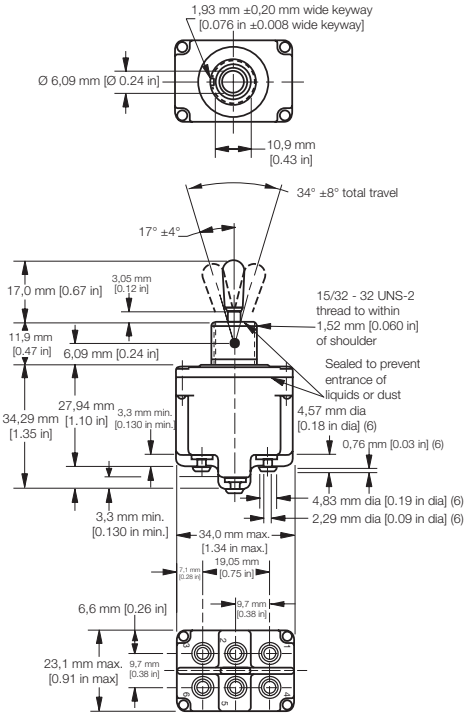
## TL SERIES 2-POLE STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

**Note: Three-position switches shown**

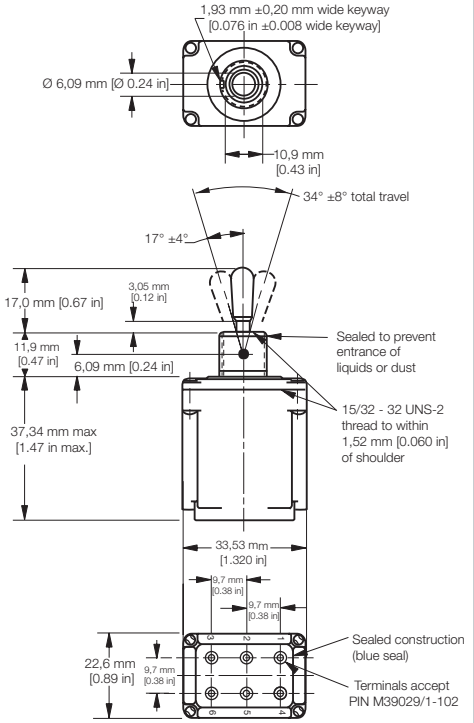
### 2TL1: Single pole, standard lever, screw terminals



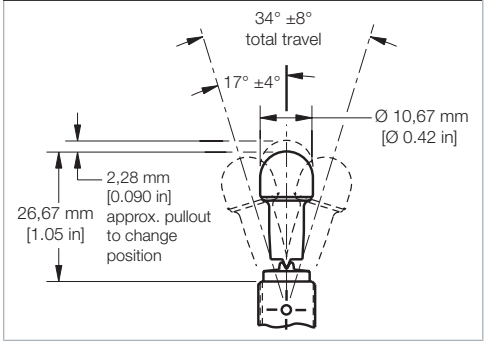

### 12TL1: Single pole, standard lever, solder terminals




### 102TL1: Single pole, standard lever, IWTS terminals



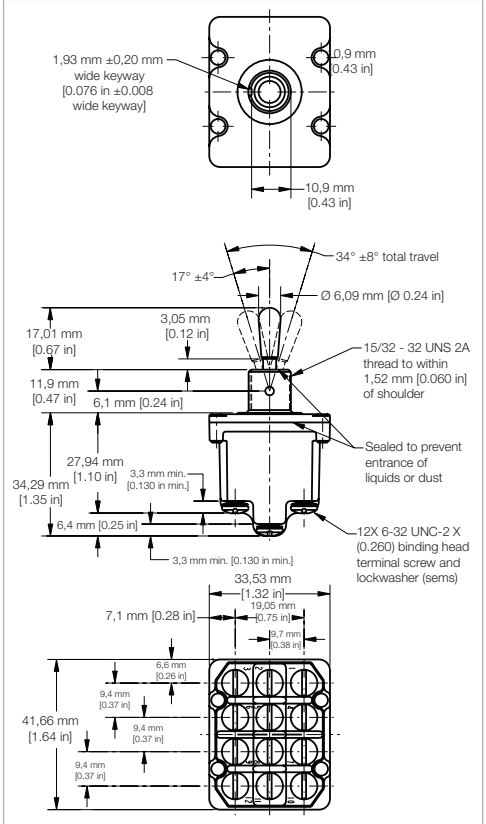

### Locking lever dimensions for double pole TL toggles



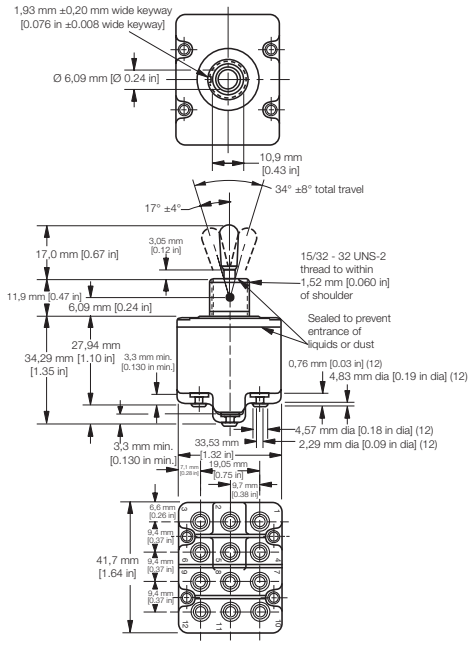
## TL SERIES 4-POLE STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

**Note: Three-position switches shown**

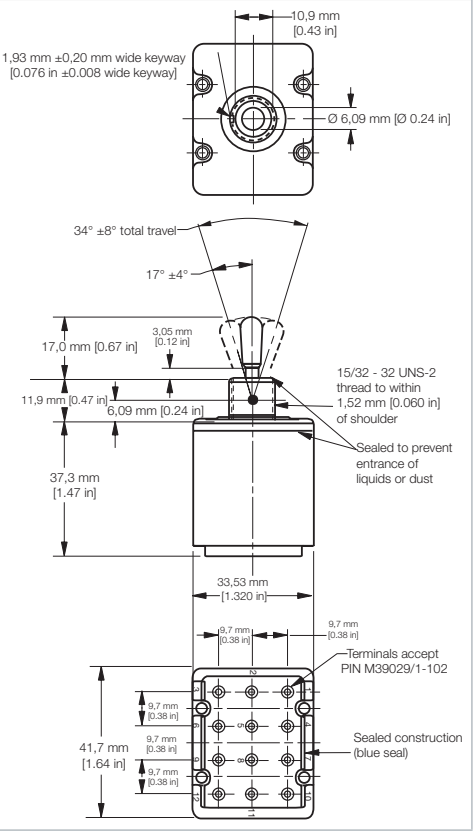
### 4TL1: Four-pole, standard lever, screw terminals



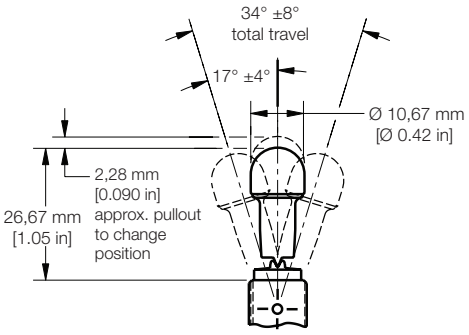

### 14TL1: Four-pole, standard lever, solder terminals




### 104TL1: Four pole, standard lever, IWTS terminals




### Locking lever dimensions for four-pole TL toggles



## MICRO SWITCH TL SERIES LOCKING CONFIGURATIONS

| A | B | D | E | F | G | H |
|---|---|---|---|---|---|---|
|  Locked In Three Positions |  Locked In Center and Extreme Position (Keyway Side) |  Locked Out Of Center Position |  Locked In Center Position |  Locked In Extreme Position (Opposite Keyway) |  Locked In Extreme Position (Keyway Side) |  Locked Out Of Center And Extreme Position (Keyway Side) |

| J | K | L | M | N | P |
|---|---|---|---|---|---|
|  Locked Out Of Center And Extreme Position (Opposite Keyway) |  Locked In Center And Extreme Position (Opposite Keyway) |  Locked Out Of Extreme Position (Keyway Side) |  Locked Out Of And Into Extreme Position (Opposite Keyway) |  Locked Out Of Extreme Position (Opposite Keyway) |  Locked Out Of And Into Extreme Position (Keyway Side) |

## ADDITIONAL MATERIALS

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

- Product installation instructions
- Product range guide
- Product application-specific information
  - Flight deck toggle switches
  - Sensors and switches in front loaders
  - Sensors and switches in mobile cranes
  - Sensors and switches in oil rig applications

**⚠ WARNING**
**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.

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

### Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

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Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

**For more information**

Honeywell Sensing and Internet of Things services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or the nearest Authorized Distributor, visit sensing.honeywell.com or call:

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