

Honeywell TS Series Micro Switch General Purpose Toggle **Switches User Guide**

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Honeywell TS Series Micro Switch General Purpose Toggle Switches



DESCRIPTION

MICRO SWITCH TS Series toggles may be used anywhere manual operation is desired. They are an entry-level solution for applications that do not require a sealed toggle switch. Special on-on-on circuitry can also be furnished. MICRO SWITCH TS Series switches feature broad circuitry and action availability considering 2- or 3-position options, momentary and maintained actions, and 1- and 2-pole circuitry. Switches are available with solder, screw, or quick-connect termination styles.

VALUE TO CUSTOMERS

- Low-cost toggle solution for applications without harsh environmental conditions or where third-party seal rating is not required
- · Minimizes service costs while extending equipment life

FEATURES

- · UL recognized for the US and Canada
- 1- and 2-pole options
- 2- or 3-position; maintained and momentary action
- Electrical connections: screw, solder, quick connect (spade)
- Optional step-case design provides added space between terminals to prevent shorting

APPLICATIONS

- · Agricultural equipment
- Construction equipment
- Controllers

• Factory floor machinery

PORTFOLIO

The TS Series is part of the MICRO SWITCH family of toggle switches that include the TL, NT, TW, AT, and ET Series switches. To view the entire product portfolio, click here.

TABLE 1. SPECIFICATIONS					
Characteristic	Parameter				
Description	general-purpose toggle switch				
Sealing	unsealed				
Operating temperature	-54 °C to 71 °C [-65 °F to 160 °F]				
Actuators	standard, lever				
Action	2- or 3- position; momentary and maintained				
Mounting	bushing 15/32 in (0.47 in) Ø				
Circuitry	SPDT, DPDT				
Terminations	screw, solder, quick connect				
Contacts	Silver tin oxide and indium oxide				
	0.4 A to 10 A @ 126 Vac to 277 Vac				
Electrical rating (resistiv e load)	0.4 A to 20 A @ 0.5 Vac to 125 Vac				
Approvals	UL, cUL				
Measurement	55,83 mm H x 28,58 mm W x 16,51 mm D [2.198 in H x 1.125 in W x 0.65 in D]				

TABLE 2. UL ELECTRICAL RATINGS				
Rating Code	Electrical Rating			
L311	10 A, 277 Vac; 20 A, 125 Vac; ¾ HP, 125 Vac / 250 Vac			
L312	10 A, 277 Vac; 20 A, 125 Vac; 1½ HP, 125 Vac / 250 Vac			

TABLE 3. MICRO SWITCH TS SERIES 2-POSITION ORDER GUIDE									
	Circuits Made		Catalog Listing						
No. of poles	Keyway Position	Opposite Keyway	UL Rating Code	Screw Terminals	Solder Terminals	Quick-Con- nect Terminals			
	OFF	2-3 ON	L311	11TS15-2	11TS115-2	11TS95-2			
	2-1 ON	2-3 ON	L311	11TS15-3	11TS115-3	11TS95-3			
	OFF*	2-3 ON	L312	11TS15-4	11TS115-4	11TS95-4			
	2-1 ON*	OFF	L312	11TS15-6	11TS115-6	11TS95-6			
	2-1 ON*	2-3 ON	L312	11TS15-8	11TS115-8	_			
OFF. ON 127518, ON 227518, ON 227	OFF	2-3 & 5-6 ON	L311	12TS15-2	12TS115-2	12TS95-2			
	2-1 ON & 5-4 ON	2-3 & 5-6 ON	L311	12TS15-3	12TS115-3	12TS95-3			
	OFF*	2-3 & 5-6 ON	L312	12TS15-4	-	-			
	2-1 ON & 5-4 ON*	OFF	L312	12TS15-6	.=	_			
	2-1 ON & 5-4 ON*	2-3 & 5-6 ON	L312	12TS15-8	12TS115-8	_			

TABLE 4. MICRO SWITCH TS SERIES 3-POSITION ORDER GUIDE									
	Circuits Made with Toggle at:				Catalog Listing				
No. of poles	Keyway Position	Center Position	Opposite Keyway	UL Rating Code	Screw Terminals	Solder Terminals	Quick- Connect Terminals		
	2-1 ON	OFF	2-3 ON	L311	11TS15-1	11TS115- 1	11TS95-1		
	2-1 ON*	OFF	2-3 ON	L312	11TS15-5	11TS115- 5	11TS95-5		
	2-1 ON*	OFF	2-3 ON*	L312	11TS15-7	11TS115- 7	11TS95-7		
2 ON) OFF ON 12TS 15.5	2-1 & 5-4 ON	OFF	2-3 & 5-6 ON	L311	12TS15-1	12TS115- 1	12TS95-1		
	2-1 & 5-4 ON*	OFF	2-3 & 5-6 ON	L312	12TS15-5	12TS115- 5	12TS95-5		
	2-1 & 5-4 ON*	OFF	2-3 & 5-6 ON*	L312	12TS15-7	-	12TS95-7		
	2-1 & 5-4 ON	2-1 & 5-6 ON	2-3 & 5-6 ON	L312	-	-	12TS95-10		

• Marked toggle positions are momentary. All others are maintained.

TS SERIES STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

Note: Two and three-position switches shown.

Figure 1. Single pole, standard lever, Figure 2. Single pole, standard lever, Figure 3. Single pole, standard lever, screw terminals quick-connect terminals solder terminals 0.072 ±0.01 wide 0.072 ±0.01 wide X ▼0.038 ±0.01 X ▼ 0.038 ±0.01 Ø 5,99 [Ø 0.236] Ø 5,99 [Ø 0.24] Ø 5,99 [Ø 0.24] Bright nickel-plated lever Bright Bright nickel-plated lever nickel-plated lever 30° ±8° total travel 15° ±4 30° ±8° 30° ±8° total travel total travel 16,51 ±1,27 [0.65 ±0.05] 0.072 ±0.01 wide X ▼0.038 ±0.01 16,51 ±1,27 16,51 ±1,27 [0.65 ±0.05] 15/32-32 UNS 11,94 15/32-32 UNS [0.65 ±0.05] 15/32-32 UNS [0.47] thread to within thread to within thread to within 1 1 0.06 in of 0.06 in of 0.06 in of 11,94 11,94 shoulder shoulder shoulder [0.47] [0.47]26,97 [1.062] 3X (6-32 UNC) 27,38 [1.078] 27,38 [1.078] -binding head max max. 0254 4,83 [0.19]-[Ø 0.10 hole] Combo head supplied 6,35 [0.25] 28,58 ±0,51 [1.125 ±0.02] 28,58 ±0,51 28,58 ±0,51 [1.125 ±0.02] 16,51 [0.65] [1.125 ±0.02] 16,51 [0.65] 16,51 [0.65] max

TS SERIES STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

Note: Two and three-position switches shown.

Figure 4. Double pole, standard lever, screw terminals

0.072 ±0.01 wide X ▼0.038 ±0.01 Ø 5,99 [Ø 0.236] Bright nickel-plated lever 30° ±8 total trave 15 16,51 ±1,27 [0.65 ±0.05] 15/32-32 UNS thread to within 0.06 in of 11,94 shoulder [0.47]6X (6-32 UNC) 28,45 [1.12] binding head terminal screw Φ Combo head supplied. 0.02] [1.31 19,05 [0.75] max

Figure 5. Double pole, standard lever, quick-connect terminals

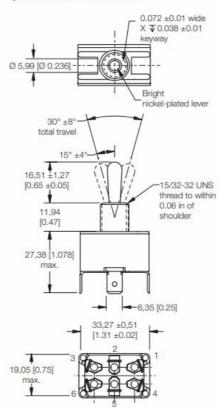
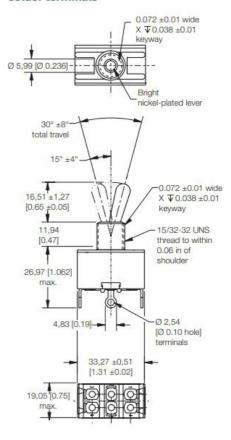


Figure 6. Double pole, standard lever, solder terminals



ADDITIONAL MATERIALS

The following associated literature is available at **sensing.honeywell.com**:

- · Product range guide
- Product application-specific information
 - Sensors and switches in front loaders
 - Sensors and switches in mobile cranes
 - Sensors and switches in oil rig applications

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 acknowledgment 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. While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application. 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 <u>sensing.honeywell.com</u> or call:

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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.

• sensing.honeywell.com

Documents / Resources



Honeywell TS Series Micro Switch General Purpose Toggle Switches [pdf] User Guide 11TS15-2, 11TS15-3, 11TS15-4, 11TS15-6, 11TS15-8, 12TS15-2, 12TS15-3, 12TS15-4, 12TS 15-6, 12TS15-8, TS Series Micro Switch General Purpose Toggle Switches, TS Series, Micro Switch General Purpose Toggle Switches, Toggle Switches, Switches

References

• H Products - Advanced Sensing Technologies | Honeywell

Manuals+,