TS SERIES

MICRO SWITCH General Purpose Toggle Switches



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.

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

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				
Electrical rating (resistive load)	0.4 A to 10 A @ 126 Vac to 277 Vac 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; ³ / ₄ 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	-			
OFFI ON TRIPE	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	_			

^{*} Marked toggle positions are momentary. All others are maintained.

TABLE 4. MICRO SWITCH TS SERIES 3-POSITION ORDER GUIDE										
	Circ		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 15-8 1422	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, screw terminals

0.072 ±0.01 wide X ▼ 0.038 ±0.01 keyway

Bright nickel-plated lever

15/32-32 UNS

thread to within

3X (6-32 UNC)

terminal screw

Combo head

16,51 [0.65]

max.

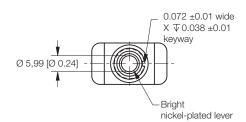
1

binding head

0.06 in of

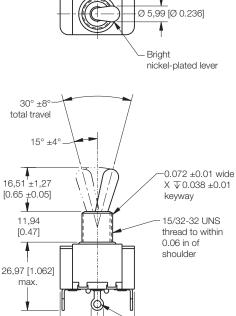
shoulder

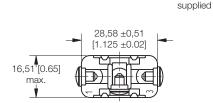
Figure 2. Single pole, standard lever, quick-connect terminals



30° ±8° total travel 15° +4 16,51 ±1,27 $[0.65 \pm 0.05]$ 15/32-32 UNS thread to within 1 0.06 in of 11,94 shoulder [0.47]27,38 [1.078] max. φ -6,35 [0.25] $28,58 \pm 0,51$ $[1.125 \pm 0.02]$

Figure 3. Single pole, standard lever, solder terminals





30° ±8°

15° ±4°

total travel

16,51 ±1,27

[0.65 ±0.05]

.

11,94

[0.47]

27,38 [1.078]

TS SERIES STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

Note: Two and three-position switches shown.

Figure 4. Double pole, standard lever, screw terminals

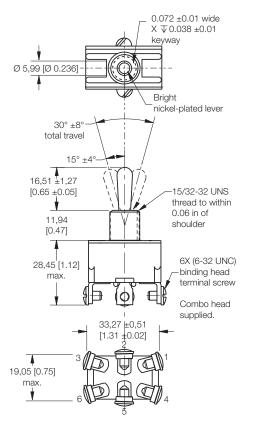


Figure 5. Double pole, standard lever, quick-connect terminals

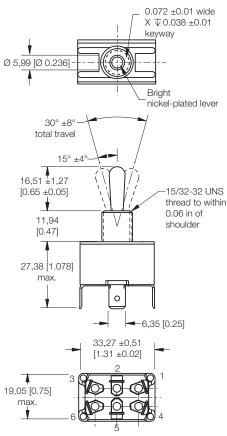


Figure 6. Double pole, standard lever, solder terminals

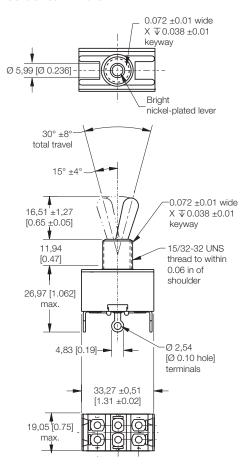
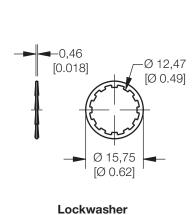
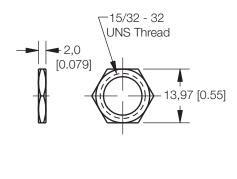


Figure 7. TS Series Hardware



Dimensions to fit



2X Hex Nut

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

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 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.

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