

MICRO SWITCH™ General Purpose Toggle Switches

005427-3-EN

TS Series Issue 3

Datasheet



DESCRIPTION

MICRO SWITCHTM 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 SWITCHTM 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, CSA certified, and CE certified
- 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

POTENTIAL 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.

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, CSA, CE
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 and CSA 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-Connect 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	-	
2	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

	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
1	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 ONLOFF ON 12TS18.4 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

15/32-32 UNS

thread to within

3X (6-32 UNC)

terminal screw

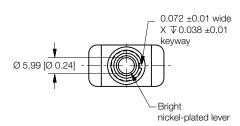
binding head

Combo head

0.06 in of

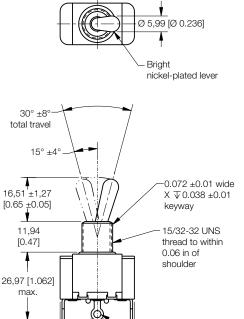
shoulder

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



30° ±8° total travel 15° ±4 16,51 ±1,27 [0.65 ±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]

Figure 3. Single pole, standard lever, solder terminals



Ø 2,54

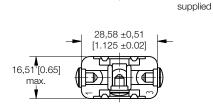
terminals

[Ø 0.10 hole]

4,83 [0.19]-

16,51 [0.65]

28,58 ±0,51 [1.125 ±0.02]



30° ±8°

15° ±4°

total travel

16,51 ±1,27

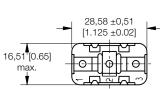
 $[0.65 \pm 0.05]$

1

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

0.072 +0.01 wide X ▼ 0.038 ±0.01 keyway Ø 5,99 [Ø 0.236] Bright nickel-plated lever 30° +8° total travel $15^{\circ} + 4$ 16,51 ±1,27 15/32-32 UNS $[0.65 \pm 0.05]$ thread to within 0.06 in of 11.94 shoulder [0.47]6X (6-32 UNC) 28,45 [1.12] binding head max. terminal screw Φ Combo head supplied. 33.27 +0.51 $[1.31 \pm 0.02]$ 19,05 [0.75]

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

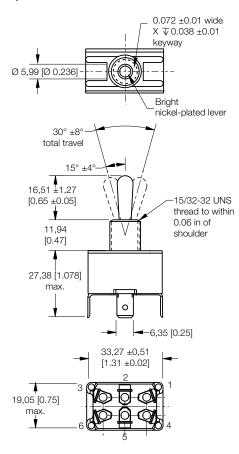


Figure 6. Double pole, standard lever, solder terminals

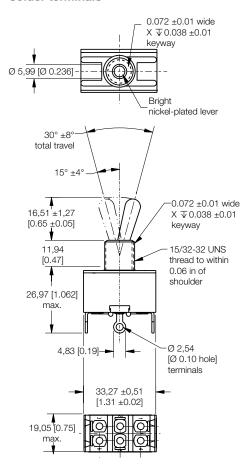
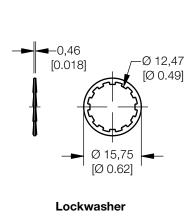
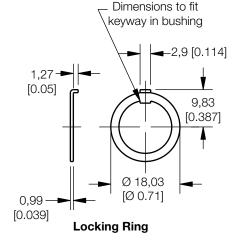
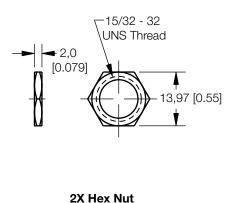


Figure 7. TS Series Hardware







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.

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

⚠ WARNINGMISUSE 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.

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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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