

## MICRO SWITCH™ General Purpose Toggle Switches

TS Series

005427-3-EN

Issue 3

Datasheet



### 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, 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.

# MICRO SWITCH™ General-Purpose Toggle Switches, TS Series

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; ¼ HP, 125 Vac / 250 Vac
L312	10 A, 277 Vac; 20 A, 125 Vac; ½ HP, 125 Vac / 250 Vac



# MICRO SWITCH™ General-Purpose Toggle Switches, TS Series

Table 3. MICRO SWITCH™ TS Series 2-Position Order Guide

No. of poles	Circuits Made with Toggle at:			Catalog Listing		
	Keyway Position	Opposite Keyway	UL Rating Code	Screw Terminals	Solder Terminals	Quick-Connect Terminals
 1	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

No. of poles	Circuits Made with Toggle at:			UL Rating Code	Catalog Listing		
	Keyway Position	Center Position	Opposite Keyway		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	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.

# MICRO SWITCH™ General-Purpose Toggle Switches, TS Series

## TS SERIES STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

Note: Two and three-position switches shown.

Figure 1. Single pole, standard lever, screw terminals

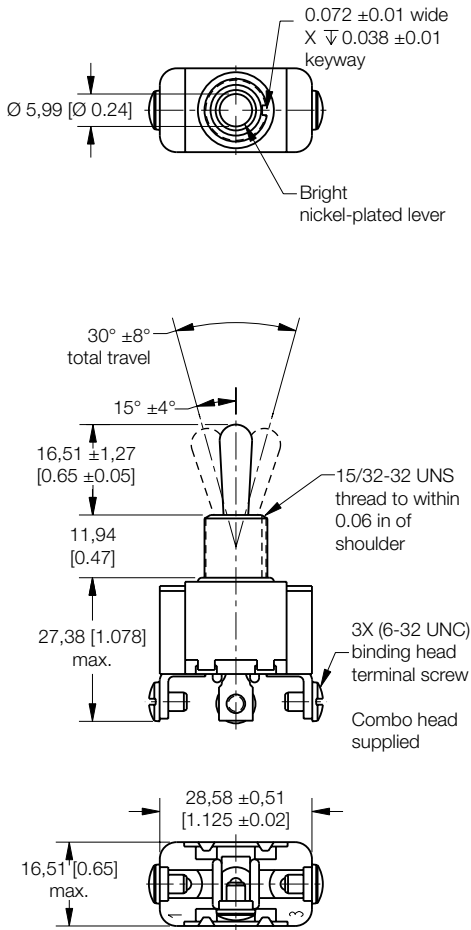


Figure 2. Single pole, standard lever, quick-connect terminals

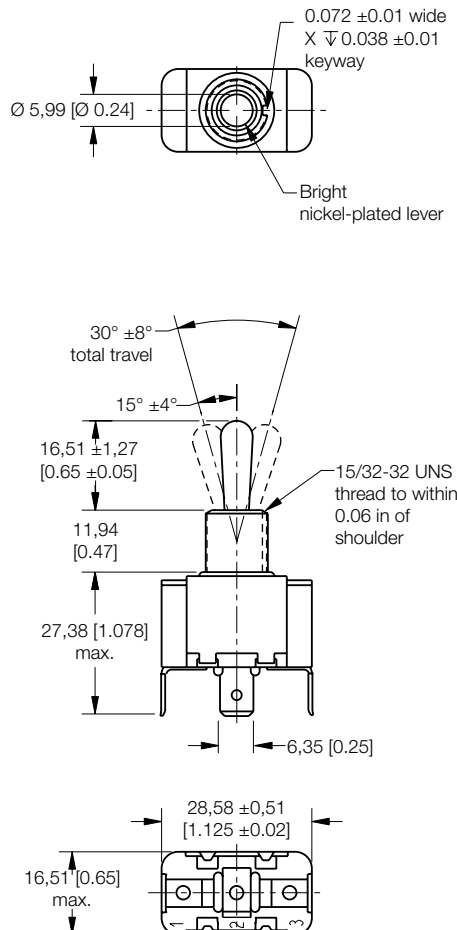


Figure 3. Single pole, standard lever, solder terminals



# MICRO SWITCH™ General-Purpose Toggle Switches, TS Series

## TS SERIES STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

Note: Two and three-position switches shown.

Figure 4. Double pole, standard lever, screw terminals

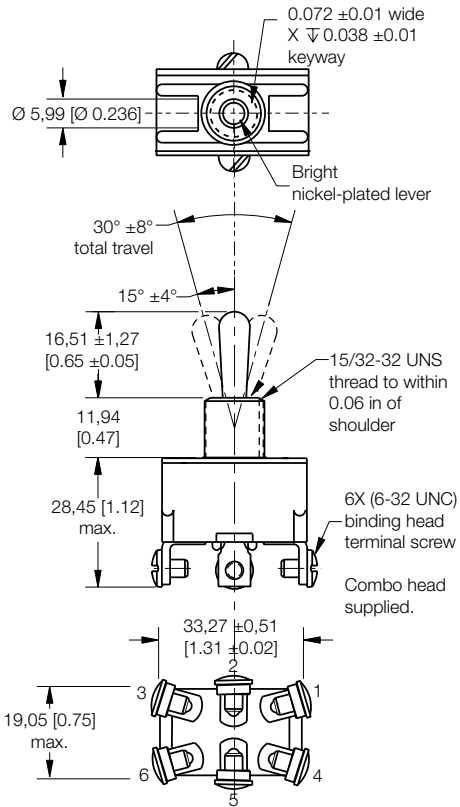


Figure 5. Double pole, standard lever, quick-connect terminals

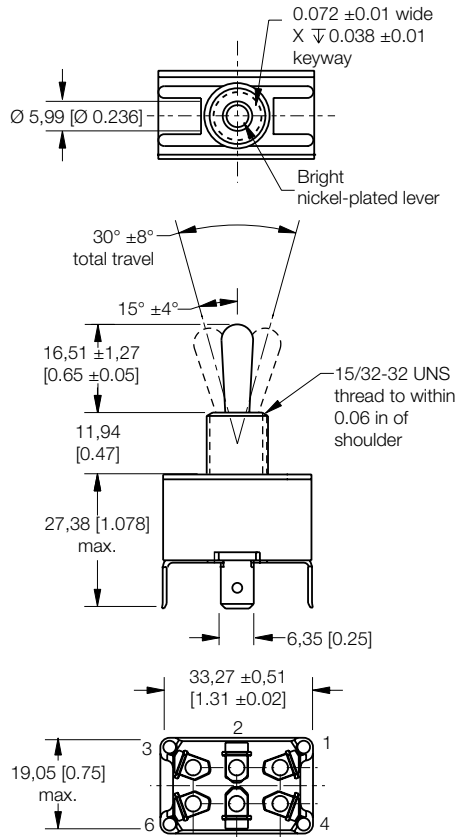


Figure 6. Double pole, standard lever, solder terminals

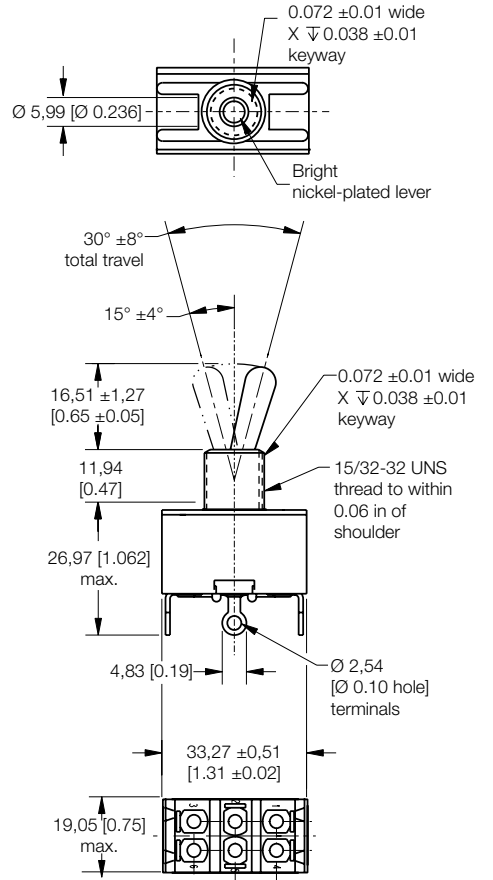
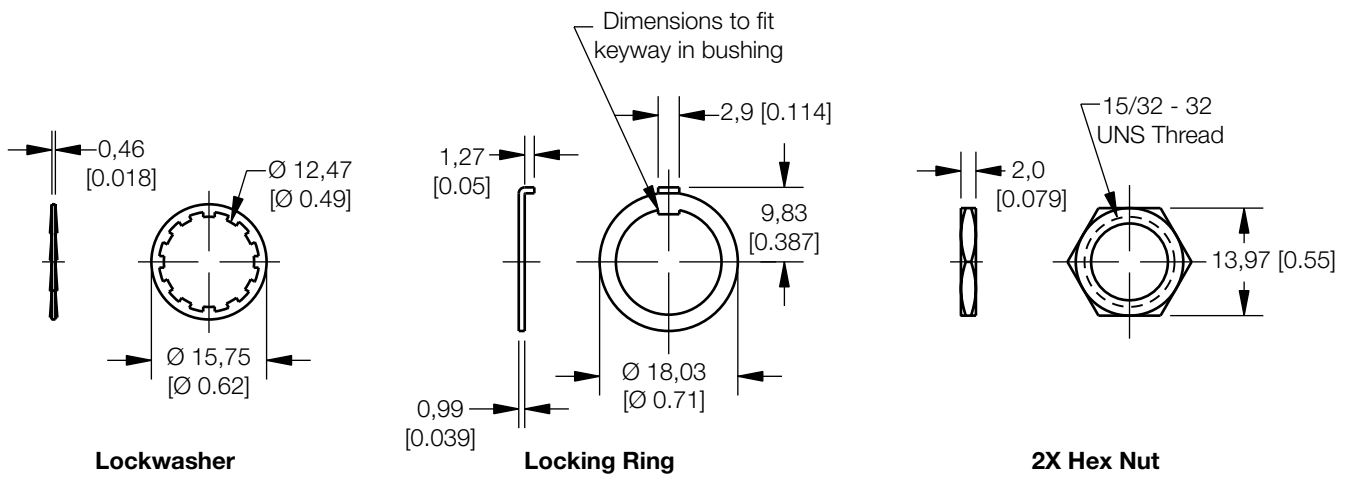


Figure 7. TS Series Hardware



## ADDITIONAL MATERIALS

The following associated literature is available at [sensing.honeywell.com](http://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

### **⚠ 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.**

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