

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](#).

MICRO SWITCH GENERAL PURPOSE TOGGLE SWITCH, 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, 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

MICRO SWITCH GENERAL PURPOSE TOGGLE SWITCH, TS SERIES

TABLE 3. MICRO SWITCH TS SERIES 2-POSITION ORDER GUIDE

No. of poles	Circuits Made with Toggle at:		UL Rating Code	Catalog Listing		
	Keyway Position	Opposite Keyway		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	–
	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
	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
	2-1 & 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 SWITCH, TS SERIES

TS SERIES STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

Note: Two and three-position switches shown.

Figure 1. Single pole, standard lever, screw terminals

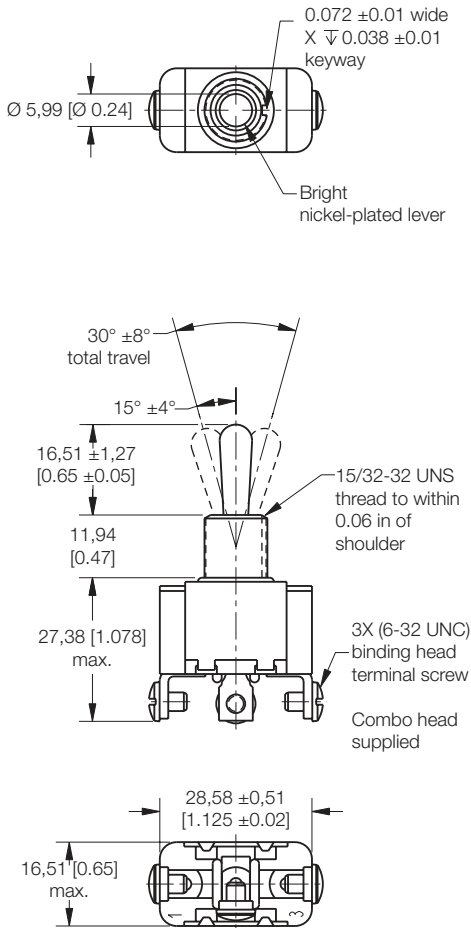


Figure 2. Single pole, standard lever, quick-connect terminals

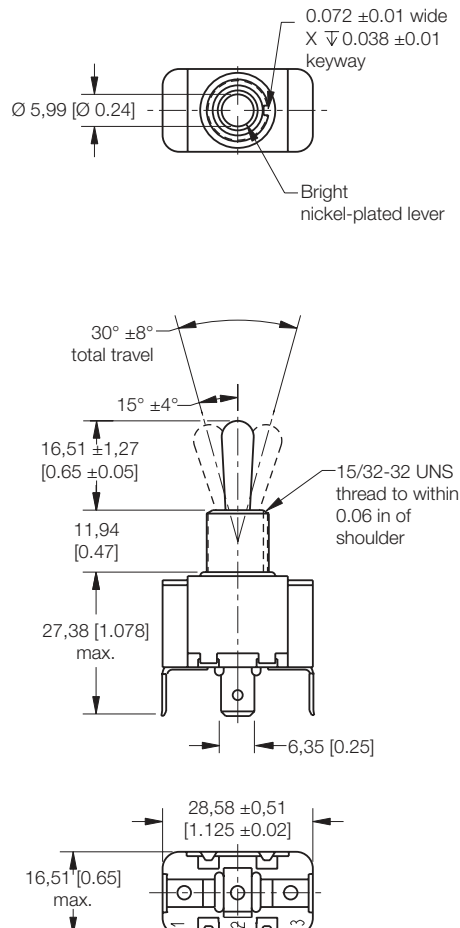
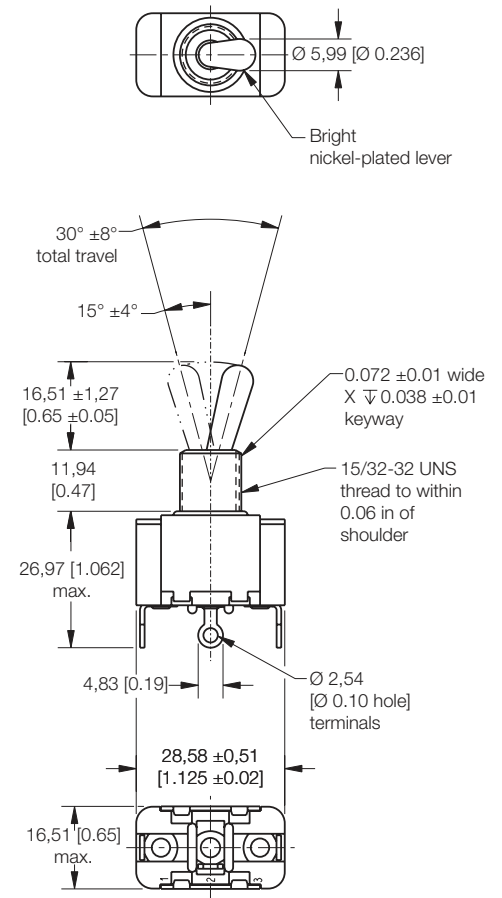


Figure 3. Single pole, standard lever, solder terminals



MICRO SWITCH GENERAL PURPOSE TOGGLE SWITCH, TS SERIES

TS SERIES STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

Note: Two and three-position switches shown.

Figure 4. Double pole, standard lever, screw terminals

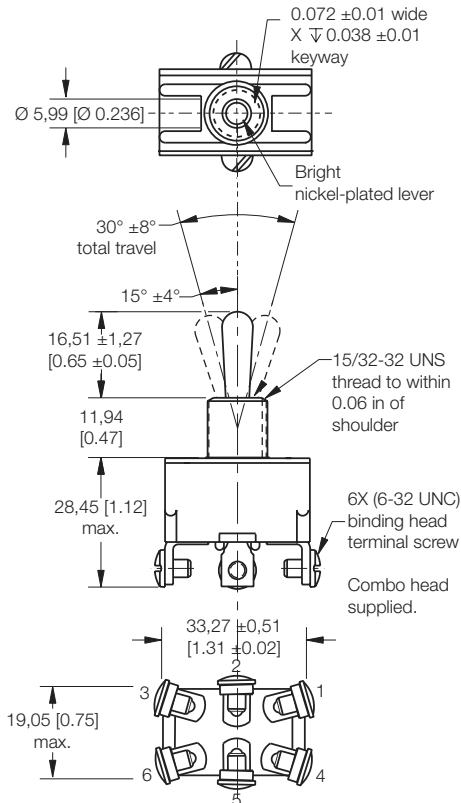


Figure 5. Double pole, standard lever, quick-connect terminals

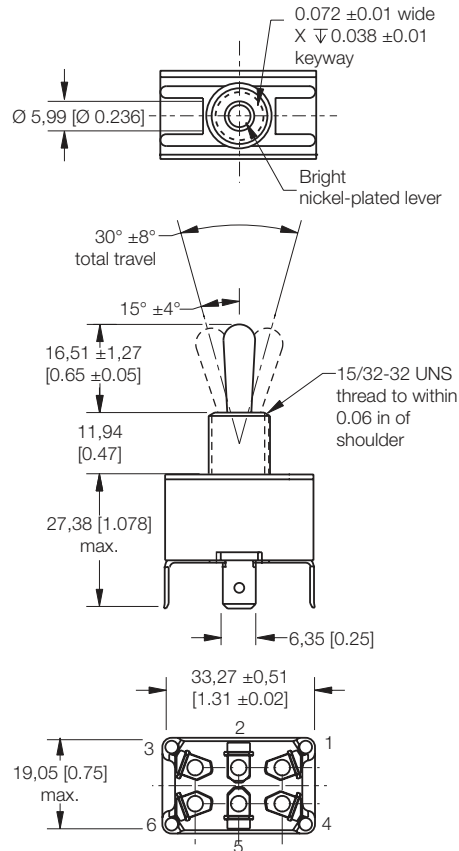


Figure 6. Double pole, standard lever, solder terminals

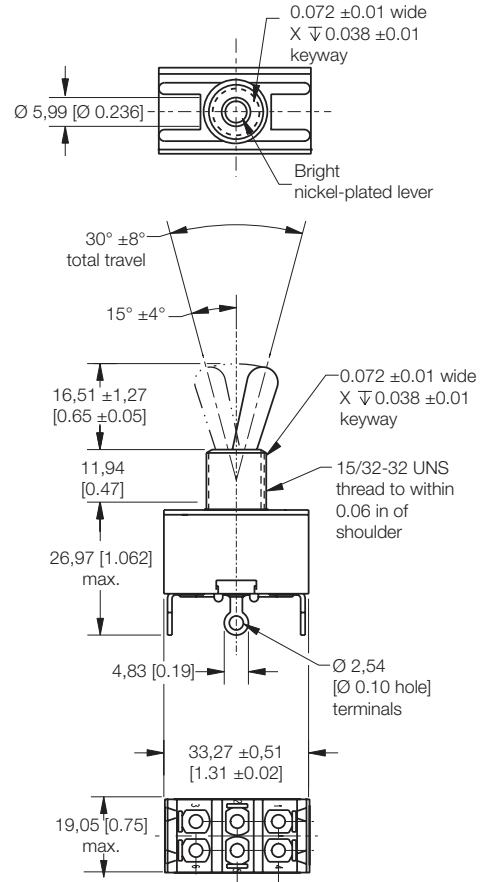
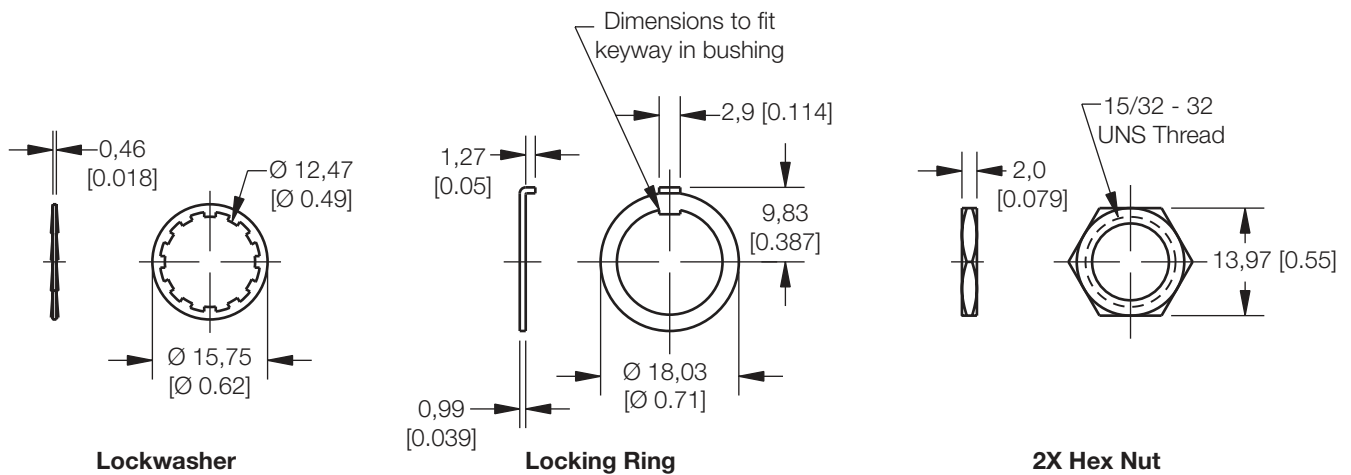


Figure 7. TS Series Hardware



ADDITIONAL MATERIALS

The following associated literature is available at

- 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

FOR MORE INFORMATION

Honeywell Advanced Technologies serves its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing, or the nearest Authorized Distributor,

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.**

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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.

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.