MICRO SWITCH ${ }^{\text {TM }}$ General Purpose Toggle Switches
TS Series


## DESCRIPTION

MICRO SWITCH ${ }^{\text {TM }}$ 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 ${ }^{\text {TM }}$ 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
- 


## MICRO SWITCH ${ }^{\text {TM }}$ General-Purpose Toggle Switches, TS Series

Table 1. Specifications

| Characteristic | Parameter |
| :---: | :---: |
| Description | general-purpose toggle switch |
| Sealing | unsealed |
| Operating temperature | $-54{ }^{\circ} \mathrm{C}$ to $71{ }^{\circ} \mathrm{C}\left[-65{ }^{\circ} \mathrm{F}\right.$ to $\left.160{ }^{\circ} \mathrm{F}\right]$ |
| Actuators | standard, lever |
| Action | 2- or 3-position; momentary and maintained |
| Mounting | bushing 15/32 in (0.47 in) $\varnothing$ |
| 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 $20 \mathrm{~A} @ 0.5 \mathrm{Vac}$ to 125 Vac |
| Approvals | UL, CSA, CE |
| Measurement | $55,83 \mathrm{~mm} \mathrm{H} \times 28,58 \mathrm{~mm} \mathrm{~W} \times 16,51 \mathrm{~mm} \mathrm{D}$ [2.198 in $\mathrm{H} \times 1.125 \mathrm{in} \mathrm{W} \times 0.65$ in D] |

Table 2. UL and CSA Electrical Ratings

| Rating Code | Electrical Rating |
| :--- | :--- |
| L311 | $10 \mathrm{~A}, 277 \mathrm{Vac} ; 20 \mathrm{~A}, 125 \mathrm{Vac} ; 3 / 4 \mathrm{HP}, 125 \mathrm{Vac} / 250 \mathrm{Vac}$ |
| L312 | $10 \mathrm{~A}, 277 \mathrm{Vac} ; 20 \mathrm{~A}, 125 \mathrm{Vac} ; 1 / 2 \mathrm{HP}, 125 \mathrm{Vac} / 250 \mathrm{Vac}$ |

## MICRO SWITCH ${ }^{\text {TM }}$ General-Purpose Toggle Switches, TS Series

Table 3. MICRO SWITCH ${ }^{\text {M }}$ 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 ${ }^{\text {M }}$ TS Series 3-Position Order Guide

|  | Circuits Made with Toggle at: |  |  | UL Rating Code | Catalog Listing |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of poles | Keyway Position | Center Position | Opposite Keyway |  | Screw Terminals | Solder Terminals | QuickConnect 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 ${ }^{\text {™ }}$ 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


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## 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


Lockwasher



2X Hex Nut

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