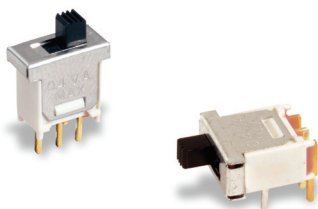


# TS Series Tiny Slide Switches



Models Available

## Features/Benefits

- **Reliable contact design ensures long electrical life**
- **Ratings up to 3 AMPS**
- **Epoxy terminal-seal compatible with bottom wash cleaning**
- **RoHS compliant**

## Typical Applications

- **Test & measurement equipment**
- **Computers & peripherals**
- **Telecommunications & networking equipment**

## Specifications

**CONTACT RATING:** B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material (TS01 Model): 3 AMPS @ 120 V AC or 28 V DC; (TS02, TS03 Models): 1 AMP @ 120 V AC or 28 V DC. See page I-10 for additional ratings.

### ELECTRICAL LIFE:

TS01 MODELS: 60,000 make-and-break cycles at full load.  
TS02, TS03 MODELS: 30,000 cycles.

**CONTACT RESISTANCE:** Below 20 m  $\Omega$  typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

**INSULATION RESISTANCE:** 10<sup>9</sup>  $\Omega$  min.

**DIELECTRIC STRENGTH:** 1,000 Vrms min. @ sea level.

**OPERATING TEMPERATURE:** -30°C to 85°C

**SOLDERABILITY:** Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

## Materials

**CASE:** Glass filled nylon 4/6, flame retardant, heat stabilized.

**ACTUATOR:** Nylon, black standard.

**HOUSING:** Stainless steel or stainless steel, nickel plated.

**END CONTACTS:** B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Coin silver, silver plated. See page I-10 for additional contact materials.

**CENTER CONTACT & ALL TERMINALS:** B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page I-10 for additional contact materials.

**TERMINAL SEAL:** Epoxy. Refer to Soldering and Cleaning in Technical Data chapter.

**NOTE:** Any models supplied with Q, B, G, P, S or R contact material are RoHS compliant.

**NOTE:** Specifications and materials listed above are for switches with standard options.

For information on specific and custom switches, consult Customer Service Center.

## Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages I-9 and I-10. For additional options not shown in catalog, consult Customer Service Center. All models have epoxy terminal seal and are compatible with all "bottom-wash" PCB cleaning methods.

|                                                                                                                                                                                            |                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                            |                                                                                                                                    |
| <b>Switch Function</b><br><b>TS01</b> SPDT On-None-On<br><b>TS02</b> SPST Off-None-On<br><b>TS03</b> SPDT On-Off-On                                                                        | <b>Terminations</b><br><b>A</b> Right angle, PC thru-hole (TS01 & TS03 models only)<br><b>C</b> PC Thru-hole<br><b>W</b> Wire wrap |
| <b>Contact Material</b><br><b>B</b> Gold<br><b>Q</b> Silver<br><b>G</b> Gold over silver<br><b>P</b> Gold, matte-tin<br><b>S</b> Silver, matte-tin<br><b>R</b> Gold over silver, matte-tin | <b>Seal</b><br><b>E</b> Epoxy                                                                                                      |

# TS Series Tiny Slide Switches

## SWITCH FUNCTION

| NO. POLES | MODEL NO. | SWITCH FUNCTION              |        |        | CONNECTED TERMINALS          |        |        | SCHEMATIC |
|-----------|-----------|------------------------------|--------|--------|------------------------------|--------|--------|-----------|
|           |           | POS. 1                       | POS. 2 | POS. 3 | POS. 1                       | POS. 2 | POS. 3 |           |
|           |           |                              |        |        |                              |        |        |           |
|           |           | C&K marking on opposite side |        |        | C&K marking on opposite side |        |        |           |
| SP        | TS01      | ON                           | NONE   | ON     | 1-2                          | OPEN   | 2-3    | <br>SPDT  |
|           | TS03      | ON                           | OFF    | ON     |                              |        |        |           |
|           | TS02      | OFF                          | NONE   | ON     | OPEN                         | N/A    | 3-1    | <br>SPST  |

### SPDT

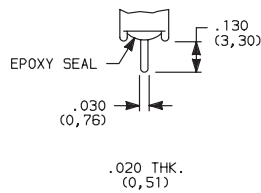
Part number shown: TS01CBE

All models with all options when ordered with G, Q, R or S contact material.

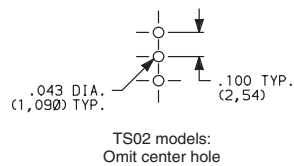
TS02 model not available with A terminations.

## TERMINATIONS

### C PC THRU-HOLE

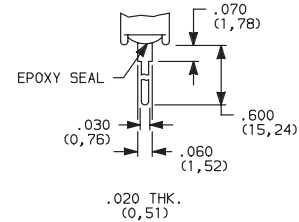


### PC MOUNTING



TS02 models:  
Omit center hole

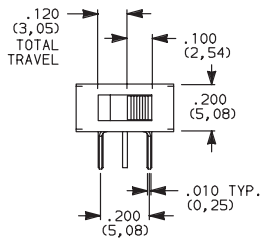
### W WIRE WRAP



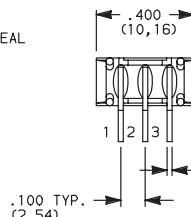
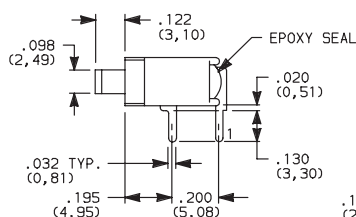
### SPDT and SPST

### SPDT and SPST

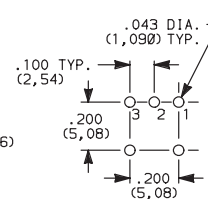
### A RIGHT ANGLE, PC THRU-HOLE



Actuator shown in pos. 1



### PC MOUNTING



TS01ABE  
Horizontal Actuation  
SPDT

Not available with TS02 model.



Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change



27 Jul 21



Slide

TS Series  
Tiny Slide Switches

CONTACT MATERIAL 

| OPTION CODE | CONTACT MATERIAL                   | TERMINAL PLATING       | RATINGS                           |                                                                                                                                                                          |
|-------------|------------------------------------|------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B           | GOLD <sup>1</sup>                  | GOLD <sup>3</sup>      | LOW LEVEL/DRY<br>CIRCUIT          | 0.4 VA MAX. @ 20 V AC OR DC MAX.                                                                                                                                         |
| P           |                                    | MATTE-TIN <sup>6</sup> |                                   |                                                                                                                                                                          |
| Q           | SILVER <sup>4,5</sup>              | SILVER <sup>5</sup>    | POWER                             | TS01 MODELS: 3 AMPS @ 120 V AC OR 28 V DC.<br>TS02, TS03 MODELS: 1 AMP @ 120 V AC OR 28 V DC.                                                                            |
| S           |                                    | MATTE-TIN <sup>6</sup> |                                   |                                                                                                                                                                          |
| G           | GOLD OVER<br>SILVER <sup>2,3</sup> | GOLD <sup>3</sup>      | LOW LEVEL/DRY<br>CIRCUIT OR POWER | TS01 MODELS: 0.4 VA MAX @20 V AC OR DC MAX. OR<br>3 AMPS @ 120 V AC OR 28 V DC.<br>TS02, TS03 MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR<br>1 AMP @ 120 V AC OR 28 V DC. |
| R           |                                    | MATTE-TIN <sup>6</sup> |                                   |                                                                                                                                                                          |

\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

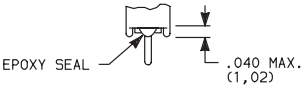
- <sup>1</sup> CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.  
<sup>2</sup> END CONTACTS: Coin silver, with gold plate over nickel plate.  
<sup>3</sup> CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.  
<sup>4</sup> END CONTACTS: Coin silver, silver plated.  
<sup>5</sup> CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.  
<sup>6</sup> TERMINALS: Copper alloy, with matte-tin over nickel plate

All models  with all options when ordered with G, S or R contact material.  
B contact material standard with A and W terminations.  
Q contact material standard with C terminations.

**NOTE:** Any models supplied with Q, B, G, P, S or R contact material are RoHS compliant.

SEAL 

**E** EPOXY SEAL



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## C&K Switches:

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[TS02CBE](#) [TS02WBE](#) [TS02CQE](#) [TS01AGE](#) [TS01CQF](#) [TS03AQE](#) [TS01CGF](#) [TS01CSE](#) [TS01ASE](#) [TS01ALE](#)  
[TS01AME](#) [TS03CQE](#) [TS03WBE](#) [TS01CBF](#) [TS03APE](#)