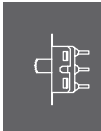









# Slides

## Product Selection Guide



Slide ↩

Slide							
Series	ES	TS	1000	GS	L	LP	S
Switch Type	Tiny	Tiny	Miniature	Ultra-miniature	Miniature	Miniature	Power
Poles	1 & 2	1	1 & 2	1	1 & 2	1 & 2	1 & 2
Momentary			•		•		•
Process Sealed	•			•			
Splashproof	•				•		
Screwdriver Slot					•		•
Housing Marking						•	•
Tape & Reel	•			•			
Max. Current	0.4 VA	3 A	6 A	0.4 VA	4 A	11 A	15 A
<b>Terminations</b>							
Wire Wrap		•	•		•		
Quick Connect			•				•
Wire Lead					•	•	•
Solder Lug			•		•	•	•
PC	•	•	•	•	•		•
<b>PCB Mount Options</b>							
Thru-hole	•	•	•	•	•	•	•
Vertical	•	•	•	•	•	•	•
Right Angle	•	•	•	•			•
Surface Mount	•			•			
<b>Panel Mount Options</b>							
Snap-in						•	•
Mounting Ears			•		•		•
Right Angle	•	•	•	•			•
Page No.	J-4	J-8	J-11	J-17	J-19	J-25	J-28

# TS Series Tiny Slide Switches



## 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**



Models Available



Slide

## 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 Ω typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

**INSULATION RESISTANCE:** 10<sup>9</sup> Ω 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 6/6, flame retardant, heat stabilized, or diallyl phthalate (DAP) (UL 94V-0).

**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 J-10 for additional contact materials.

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

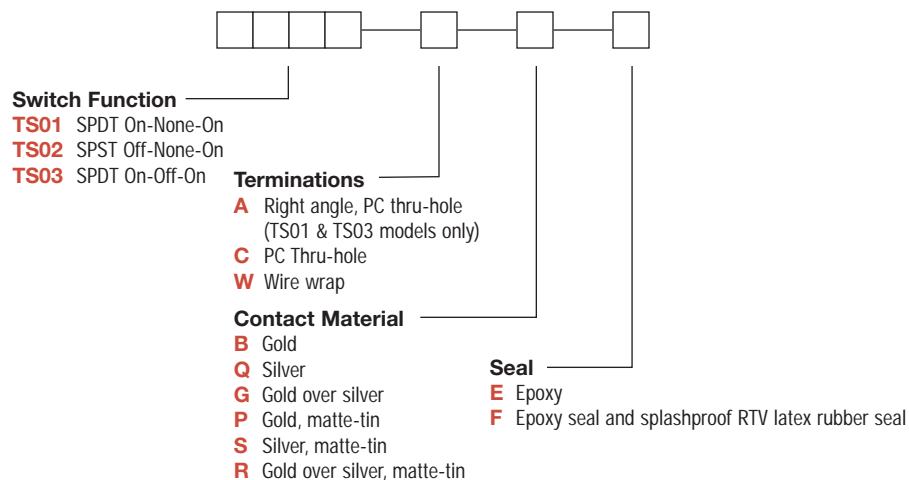
**NOTE:** Any models supplied with Q, B, G, P, S or R contact material are RoHS compliant.

**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 J-9 and J-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.



Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

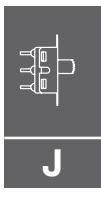
# TS Series Tiny Slide Switches

## 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	
	TS03	ON	OFF	ON				
	TS02	OFF	NONE	ON	OPEN	N/A	3-1	
<b>SPDT</b> <p>Part number shown: TS01CBE</p> <p>TS02 models: Omit center terminal</p>								

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

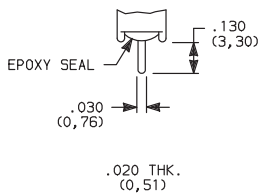
TS02 model not available with A terminations.



Slide

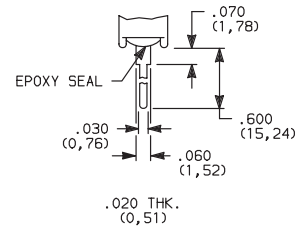
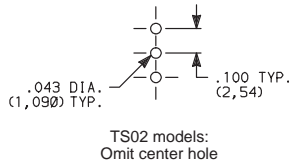
## TERMINATIONS

### C PC THRU-HOLE



### W WIRE WRAP

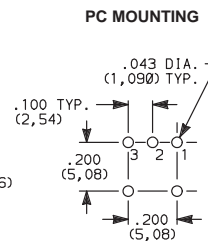
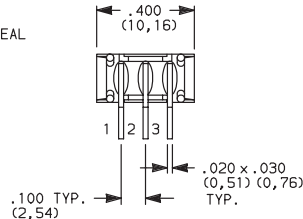
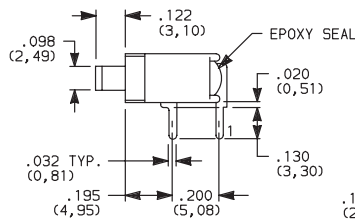
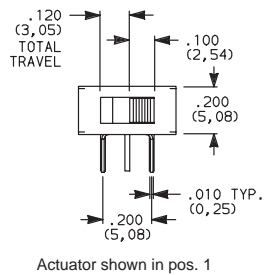
### PC MOUNTING



### SPDT and SPST

### SPDT and SPST

### A RIGHT ANGLE, PC THRU-HOLE



TS01ABE  
Horizontal Actuation  
SPDT

Not available with TS02 model.



Third Angle Projection  
Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

# TS Series Tiny Slide Switches

## CONTACT MATERIAL

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

B contact material standard with A and W terminations.

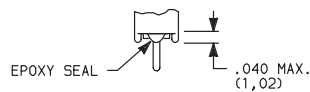
Q contact material standard with C terminations.

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

K, L and M options represent Non RoHS tin lead product and are not recommended for new designs. For additional information please contact Customer Service.

## SEAL

**E** EPOXY SEAL



**F** EPOXY SEAL AND SPLASHPROOF RTV LATEX RUBBER SEAL



**NOTE:** RTV latex rubber seal peels off easily after installation. Epoxy terminal seal standard. Not available with A termination.