Our easy Build-A-Switch concept allows you to mix and match options to create the switch you need. Below is a complete listing of options shown in catalog. To order, simply select desired option from each category and place in the appropriate box. Switches with standard options are shown on pages A-40 and A-41. Available options are shown and described on pages A-41 thru A-45. 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.

### Features/Benefits
- **Compact size—small footprint**
- **Single and double pole models**
- **PC and panel mount options available**

### Typical Applications
- **Hand-held telecommunications**
- **Instrumentation**
- **Medical equipment**

### Build-A-Switch
Our easy Build-A-Switch concept allows you to mix and match options to create the switch you need. Below is a complete listing of options shown in catalog. To order, simply select desired option from each category and place in the appropriate box. Switches with standard options are shown on pages A-40 and A-41. Available options are shown and described on pages A-41 thru A-45. 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.

#### Typical Example:

```
   T 1 0 1   S   H   Z   Q   E
```

### Specifications
- **CONTACT RATING:** B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material (TX01 models): 3 AMPS @ 120 V AC or 28 V DC. All other models: 2 AMPS @ 120 V AC or 28 V DC. See page A-45 for additional ratings.
- **ELECTRICAL LIFE:** TX01 models: 60,000 make-and-break cycles at full load. All other models: 30,000 cycles.
- **CONTACT RESISTANCE:** Below 20 milliohms typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.
- **INSULATION RESISTANCE:** 10⁹ ohms min.
- **DIELECTRIC STRENGTH:** 1000 V RMS 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).

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

### Materials
- **CASE:** Glass filled nylon 6/6, flame retardant, heat stabilized or diallyl phthalate (DAP), (UL 94V-0).
- **ACTUATOR:** Brass, chrome plated.
- **BUSHING:** Brass, nickel plated.
- **HOUSING:** Stainless steel.
- **SWITCH SUPPORT:** Brass, tin plated.
- **END CONTACTS:** B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Coin silver, silver plated. See page A-45 for additional contact materials.
- **CENTER CONTACTS & TERMINALS:** B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page A-45 for additional contact materials.
- **TERMINAL SEAL:** Epoxy.
- **HARDWARE:** Nut & Locking Ring: Brass, nickel plated. Lockwasher: Steel, nickel plated.
### T Series

#### Subminiature Toggle Switches

#### SWITCHES WITH STANDARD OPTIONS

**T101SHZQE**

**SPDT**

- **PART NUMBER**: T101SHZQE
- **POLES**: SPDT
- **POSS. 1**: ON
- **POSS. 2**: NONE
- **POSS. 3**: ON

**NOTE**: For PC termination, replace 'Z' with 'C'.
For panel mounting information, see page A-42.
For PC mounting information, see page A-43.

**T201SHZQE**

**DPDT**

- **PART NUMBER**: T201SHZQE
- **POLES**: DPDT
- **POSS. 1**: ON
- **POSS. 2**: NONE
- **POSS. 3**: ON

**NOTE**: For PC termination, replace 'Z' with 'C'.
For panel mounting information, see page A-42.
For PC mounting information, see page A-43.

**T101MH9ABE**

**Horizontal Actuation**

**SPDT**

- **PART NUMBER**: T101MH9ABE
- **NO. POLES**: SPDT
- **POSS. 1**: ON
- **POSS. 2**: Momentary
- **POSS. 3**: ON

**NOTE**: For panel mounting information, see page A-42.
MOM. = Momentary

**T201MH9ABE**

**Horizontal Actuation**

**DPDT**

- **PART NUMBER**: T201MH9ABE
- **NO. POLES**: DPDT
- **POSS. 1**: ON
- **POSS. 2**: NONE
- **POSS. 3**: ON

**NOTE**: For PC mounting information, see page A-43.
Subminiature Toggle Switches

### SWITCH WITH STANDARD OPTIONS

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>NO. POLES</th>
<th>POS. 1</th>
<th>POS. 2</th>
<th>POS. 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>T101MH9AVBE</td>
<td>SPDT</td>
<td>ON</td>
<td>NONE</td>
<td>ON</td>
</tr>
</tbody>
</table>

**NOTE:** For PC mounting information, see page A-44.

### SWITCH FUNCTION

<table>
<thead>
<tr>
<th>NO. POLES</th>
<th>MODEL NO.</th>
<th>SPDT</th>
<th>DPDT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>T101 (STD.)</td>
<td>ON</td>
<td>NONE</td>
</tr>
<tr>
<td></td>
<td>T103 (STD.)</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>T105 (STD.)</td>
<td>MOM.</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>T107</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>T108</td>
<td>ON</td>
<td>MOM.</td>
</tr>
<tr>
<td></td>
<td>T102</td>
<td>OFF</td>
<td>NONE</td>
</tr>
<tr>
<td></td>
<td>T201 (STD.)</td>
<td>ON</td>
<td>NONE</td>
</tr>
<tr>
<td></td>
<td>T203</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>T205</td>
<td>MOM.</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>T207</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>T208</td>
<td>ON</td>
<td>NONE</td>
</tr>
<tr>
<td></td>
<td>T211*</td>
<td>ON</td>
<td>ON</td>
</tr>
</tbody>
</table>

**MOM.** = Momentary

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

### ACTUATOR

<table>
<thead>
<tr>
<th>ACTUATOR FINISH</th>
</tr>
</thead>
</table>

* Wiring for 3-way switch, see page L-29.

1. Actuator shown with standard H bushing. Subtract .040 (1.02) for TD and D9 bushings, subtract .090 (2.29) for T, T9, TK, K9 & CF bushings.

2. Actuators shown with T, TK & CF bushings, add .050 (1.27) for TD and D9 bushings, add .090 (2.29) for H, H9, Y & Y9 bushings.

**NOTE:** Dress nut part number 709901201 supplied standard with threaded bushing.

All actuators have chrome finish (except K & K1). No finish selection required.
**NOTE**: Keyway on right side. To prevent accidental actuation, toggles must be lifted before being actuated. When released, toggles again lock in place. Overtightening mounting nut may cause actuator to bind.

Bushing option code not required. Not available with TX05 & TX07 models.

---

### Locking Positions

<table>
<thead>
<tr>
<th>Model</th>
<th>Locking Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>–01 &amp; –02 Models</strong></td>
<td>2 Position lock</td>
</tr>
<tr>
<td><strong>–03 &amp; –11 Models</strong></td>
<td>3 Position lock</td>
</tr>
<tr>
<td><strong>–08 Models</strong></td>
<td>1 Position lock</td>
</tr>
</tbody>
</table>

---

### Locking Lever Option Codes

<table>
<thead>
<tr>
<th>Option Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>K &amp; K1</strong></td>
<td>ACTUATOR CAP FINISH</td>
</tr>
<tr>
<td><strong>NONE</strong></td>
<td>(STD.) NATURAL AL.</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>BLACK ANODIZED AL.</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>RED ANODIZED AL.</td>
</tr>
<tr>
<td><strong>7</strong></td>
<td>BLUE ANODIZED AL.</td>
</tr>
</tbody>
</table>

---

### Actuator Finish Options

<table>
<thead>
<tr>
<th>Bushing Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H</strong></td>
<td>(STD.) .220 HIGH THREADED, FLAT</td>
</tr>
<tr>
<td><strong>H9</strong></td>
<td>(STD.) .220 HIGH UNTHREADED, FLAT</td>
</tr>
<tr>
<td><strong>Y</strong></td>
<td>.220 HIGH THREADED, KEYWAY</td>
</tr>
<tr>
<td><strong>Y9</strong></td>
<td>.220 HIGH UNTHREADED, KEYWAY</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td>.310 HIGH THREADED, FLAT</td>
</tr>
<tr>
<td><strong>T9</strong></td>
<td>.310 HIGH UNTHREADED, FLAT</td>
</tr>
<tr>
<td><strong>TD</strong></td>
<td>.260 HIGH THREADED, KEYWAY</td>
</tr>
<tr>
<td><strong>D9</strong></td>
<td>.260 HIGH UNTHREADED, KEYWAY</td>
</tr>
<tr>
<td><strong>CF</strong></td>
<td>SPLASHPROOF, .310 HIGH THREADED, FLAT</td>
</tr>
</tbody>
</table>

---

### Panel Mounting

- With Standard Locking Ring
- Without Locking Ring

---

### IP67 Degree of Protection

Internal o-ring actuator seal and external bushing seal washer standard.

Not available with K locking lever option.
TERMINATIONS

Z (STD.) SOLDER LUG

WIRE WRAP

WIRE WRAP

PC MOUNTING

A (STD.) RIGHT ANGLE, PC THRU-HOLE

A (STD.) RIGHT ANGLE, PC THRU-HOLE

C (STD.) PC THRU-HOLE

PC MOUNTING

Subminiature Toggle Switches

T Series

TERMINATIONS

Z (STD.) SOLDER LUG

W (STD.) SOLDER LUG

WIRE WRAP

PC MOUNTING

A (STD.) RIGHT ANGLE, PC THRU-HOLE

T101MH9ABE

Horizontal Actuation

SPDT

Actuator Shown In Pos. 1

Not available with T102 model.

A (STD.) RIGHT ANGLE, PC THRU-HOLE

T201MH9ABE

Horizontal Actuation

SPDT

Actuator Shown In Pos. 1

Not available with T102 model.

Not available with K, L or M contact materials.

C&K Components, Inc. Web Site: www.ckcorp.com Americas Sales Tel: 800-635-5936 Fax: 617-926-6846

Europe Sales Tel: +44-1536-521147 Fax: +44-1536-411602

Asia Sales Tel: +852-2798-6393 Fax: +852-2751-9926

Rev. A 8/99
T Series
Subminiature Toggle Switches

TERMINATIONS

AV (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE

NOTE: Terminal bend radii and lead-in manufacturing option.

AV (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE

NOTE: Terminal bend radii and lead-in manufacturing option.

V3 (STD.) VERTICAL MOUNT, V-BRACKET

NOTE: Terminal bend radii and lead-in manufacturing option.

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Rev. A 8/99
**CONTACT MATERIAL**

<table>
<thead>
<tr>
<th>OPTION CODE</th>
<th>CONTACT MATERIAL</th>
<th>TERMINAL PLATING</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>B (STD.)</td>
<td>GOLD ¹</td>
<td>GOLD ¹</td>
<td>LOW LEVEL / DRY CIRCUIT</td>
</tr>
<tr>
<td>K</td>
<td></td>
<td>TIN-LEAD ⁴</td>
<td>POWER</td>
</tr>
<tr>
<td>Q (STD.)</td>
<td>SILVER 4.5</td>
<td>SILVER 5</td>
<td>POWER</td>
</tr>
<tr>
<td>M</td>
<td>GOLD OVER SILVER 2.3</td>
<td>GOLD ³</td>
<td>LOW LEVEL / DRY CIRCUIT OR POWER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TIN-LEAD ⁶</td>
<td></td>
</tr>
</tbody>
</table>

**OPTION CODES:**

<table>
<thead>
<tr>
<th>B (STD.)</th>
<th>K</th>
<th>Q (STD.)</th>
<th>M</th>
<th>G</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOLD ¹</td>
<td></td>
<td>SILVER 4.5</td>
<td></td>
<td>GOLD OVER SILVER 2.3</td>
<td></td>
</tr>
<tr>
<td>TIN-LEAD ⁴</td>
<td></td>
<td></td>
<td></td>
<td>TIN-LEAD ⁶</td>
<td></td>
</tr>
</tbody>
</table>

**CONTACT MATERIAL / APPLICATION RECOMMENDATIONS – SEE CHART, PAGE L-31.**

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

All models with all options when ordered with G, L, M or Q contact material.
B contact material standard with A, AV, V3 & W terminations.
Q contact material standard with C & Z terminations.

**SEAL**

E (STD.) EPOXY SEAL