

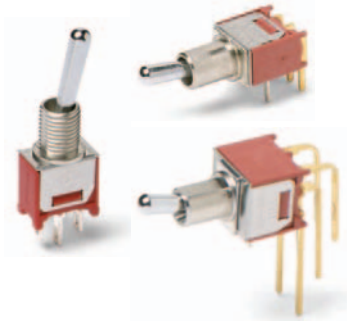
# C&K T Series Subminiature Toggle Switches

## 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



Models Available

## 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 F-38 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 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:** 1000 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).

**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 above 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 F-38 for additional contact materials.

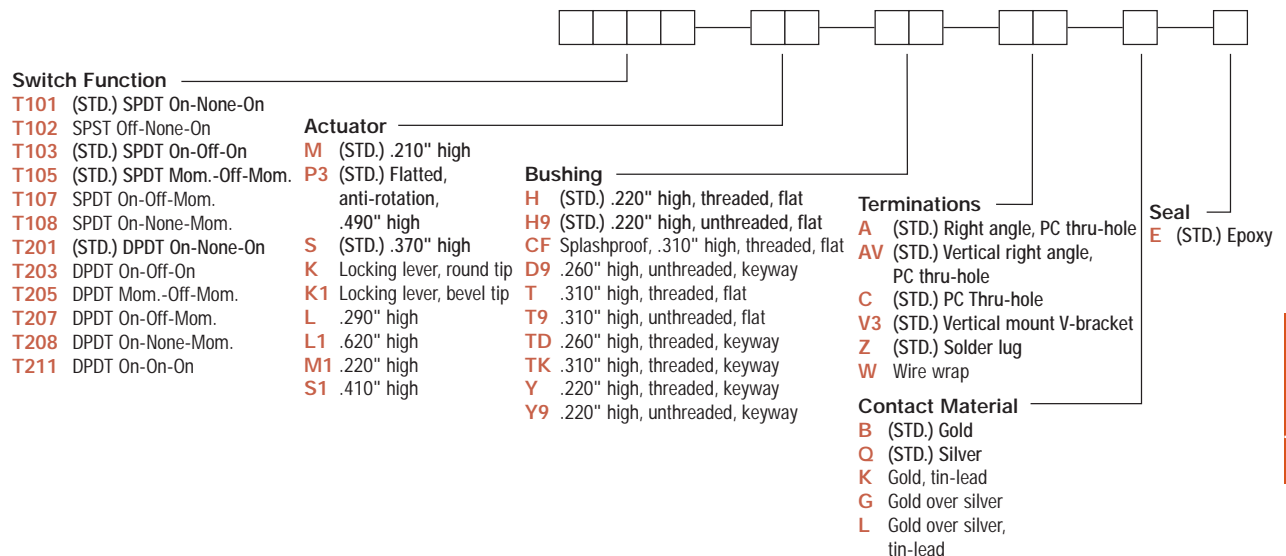
**TERMINAL SEAL:** Epoxy.

**HARDWARE:** Nut & Locking Ring: Brass, nickel plated.

Lockwasher: Steel, nickel plated. Additional hardware available separately, see section N.

## 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 F-34 thru F-38. 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.

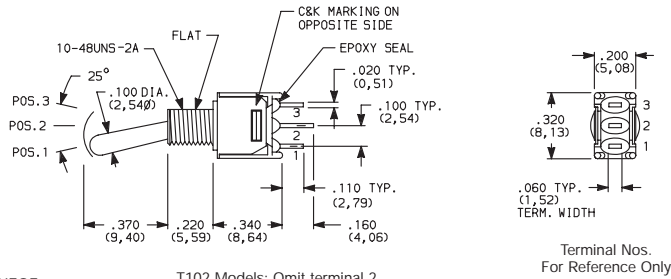


# C&K T Series Subminiature Toggle Switches

## SWITCH FUNCTION

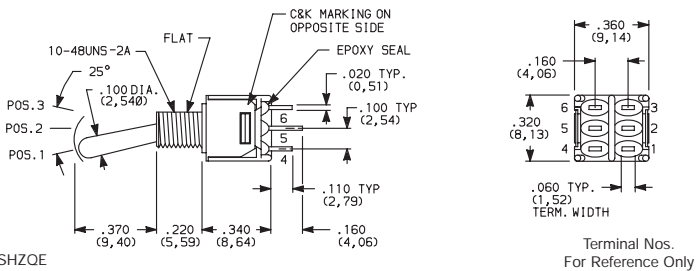
NO. POLES	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS			SCHEMATIC
		POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
SP	T101 (STD.)	ON	NONE	ON	2-3	N/A	2-1	
	T103 (STD.)	ON	OFF	ON	2-3	OPEN	2-1	
	T105 (STD.)	MOM.	OFF	MOM.				
	T107	ON	OFF	MOM.				
	T108	ON	NONE	MOM.	2-3	N/A	2-1	
T102	OFF	NONE	ON	OPEN	N/A	3-1	SPST	

### SPDT



DP	T201 (STD.)	ON	NONE	ON	2-3,5-6	N/A	2-1,5-4	
	T203	ON	OFF	ON	2-3,5-6	OPEN	2-1,5-4	
	T205	MOM.	OFF	MOM.				
	T207	ON	OFF	MOM.				
	T208	ON	NONE	MOM.	2-3,5-6	N/A	2-1,5-4	
T211*	ON	ON	ON	2-3,5-6	2-3,5-4	2-1,5-4	DPDT	

### DPDT



MOM. = Momentary

\* Wiring for 3-way switch, see Section N.

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



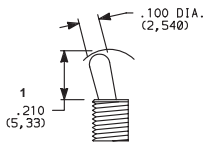
Dimensions are shown: IN (mm)  
Dimensions subject to change

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# C&K T Series Subminiature Toggle Switches

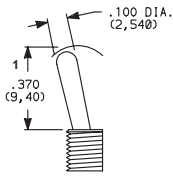
## ACTUATOR

**M** (STD.) .210" HIGH



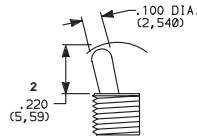
Standard with A, AV or V3 terminations.

**S** (STD.) .370" HIGH

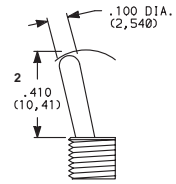


Standard with Z, C or W terminations.

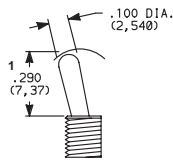
**M1** .220" HIGH  
(with "T" bushing)



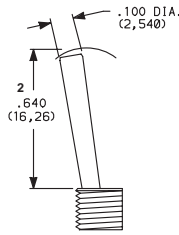
**S1** .410" HIGH  
(with "T" bushing)



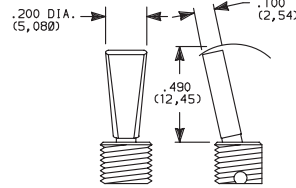
**L** .290" HIGH



**L1** .620" HIGH



**P3** (STD.) ANTI-ROTATION, FLATTED,  
.450" HIGH



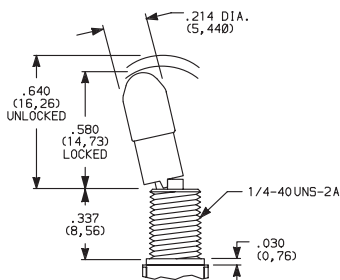
<sup>1</sup> Actuator shown with standard H bushing. Subtract .040 (1,02) for TD and D9 bushings, subtract .090 (2,29) for T, T9, TK, K9 & CF bushings.

<sup>2</sup> Actuators shown with T, T9, TK & CF bushings, add .050 (1,27) for TD and D9 bushings, add .090 (2,29) for H, H9, Y & Y9 bushings.

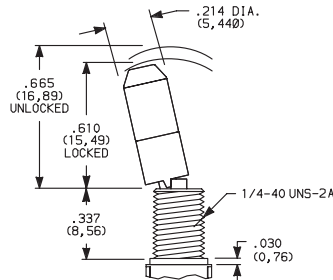
All actuators have chrome finish (except K & K1).

Available with T & T9 bushings only.  
Dress nut part number 709901201  
supplied standard with threaded bushing.

**K** LOCKING LEVER



**K1** LOCKING LEVER



### Locking Positions



-01 & -02 Models  
2 Position lock



-03 & -11 Models  
3 Position lock



-08 Models  
1 Position lock

K & K1 actuators have natural aluminum finish.

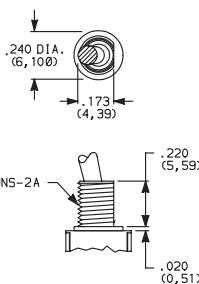
Keyway on right side. To prevent accidental actuation, toggles must be lifted before being actuated. When released, toggles again lock in place. Overtightening mounting nut may cause actuator to bind.

Not available with CF bushing option.

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

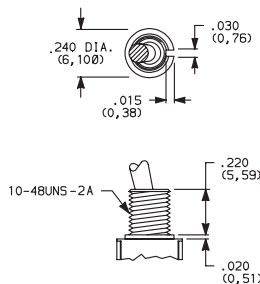
## BUSHING

**H** (STD.) .220" HIGH THREADED, FLAT



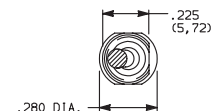
H standard with C, W & Z terminations.  
H9 standard with A, AV & V3 terminations.

**Y** .220" HIGH THREADED, KEYWAY

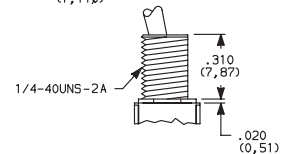


**Y9** .220" HIGH UNTHREADED, KEYWAY

**T** .310" HIGH THREADED, FLAT



**T9** .310" HIGH UNTHREADED, FLAT



Third Angle Projection

Dimensions are shown: IN (mm)  
Dimensions subject to change



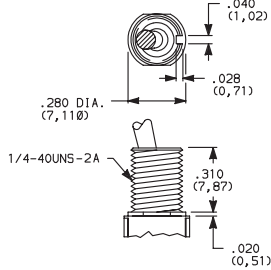
F

Toggle

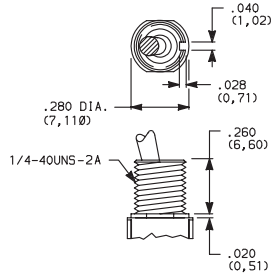
# C&K T Series Subminiature Toggle Switches

## BUSHING

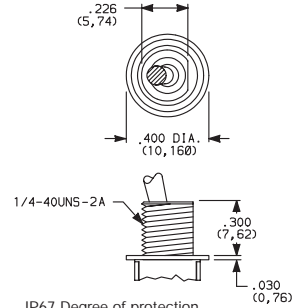
**TK** .310" HIGH THREADED, KEYWAY



**TD** .260" HIGH THREADED, KEYWAY

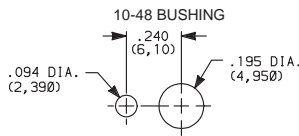


**CF** SPLASHPROOF .310" HIGH THREADED, FLAT



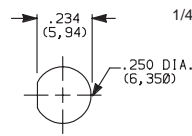
IP67 Degree of protection.  
Internal o-ring actuator seal and external bushing seal washer standard.

Not available with K locking lever option.

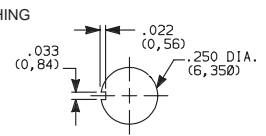


With Standard Locking Ring

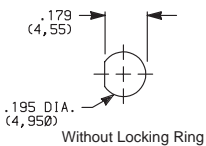
### PANEL MOUNTING



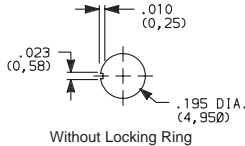
Without Locking Ring



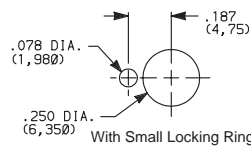
Without Locking Ring



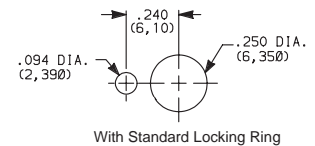
Without Locking Ring



Without Locking Ring



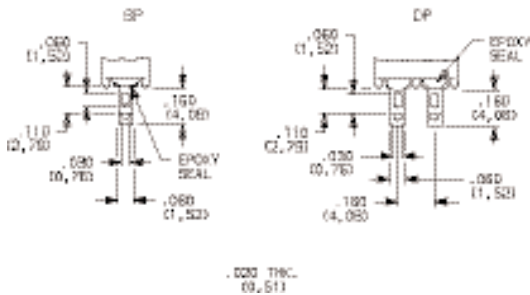
With Small Locking Ring



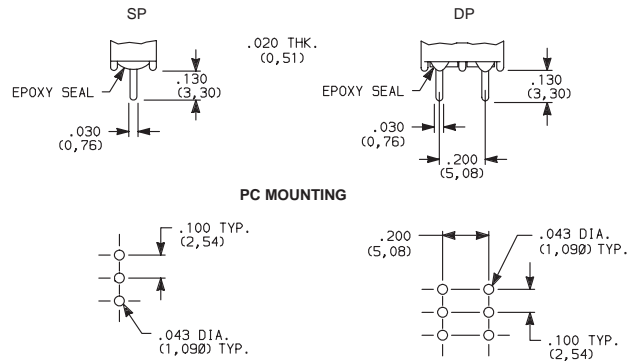
With Standard Locking Ring

## TERMINATIONS

**Z** (STD.) SOLDER LUG



**C** (STD.) PC THRU-HOLE



Not available with K or L contact materials.

**W** WIRE WRAP



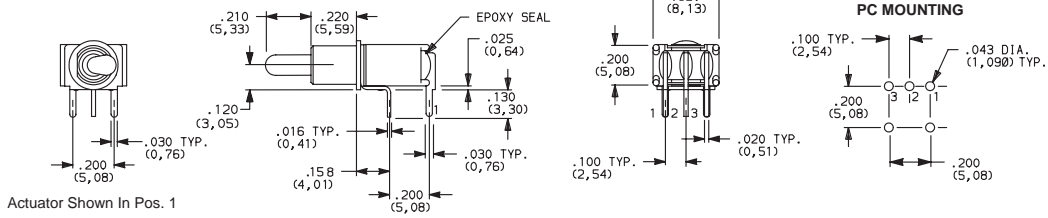
Third Angle  
Projection

Dimensions are shown: IN (mm)  
Dimensions subject to change

# C&K T Series Subminiature Toggle Switches

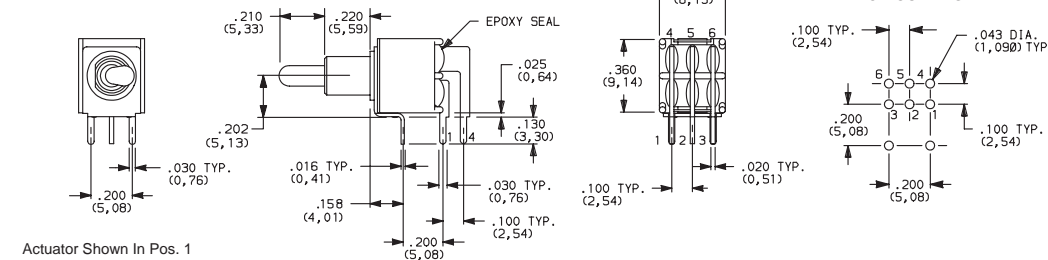
## TERMINATIONS

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

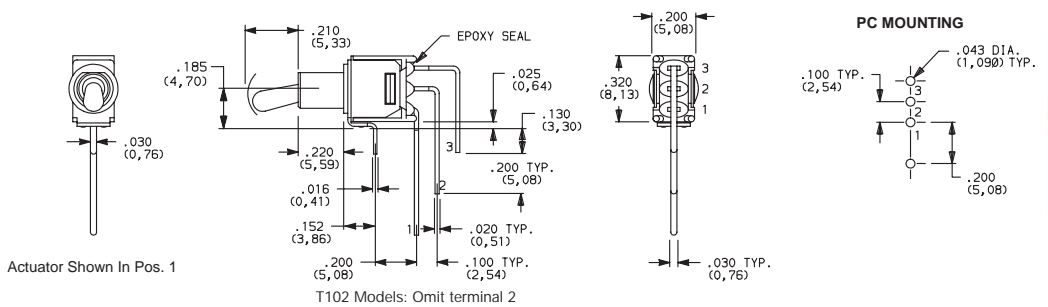


Not available with T102 model.

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



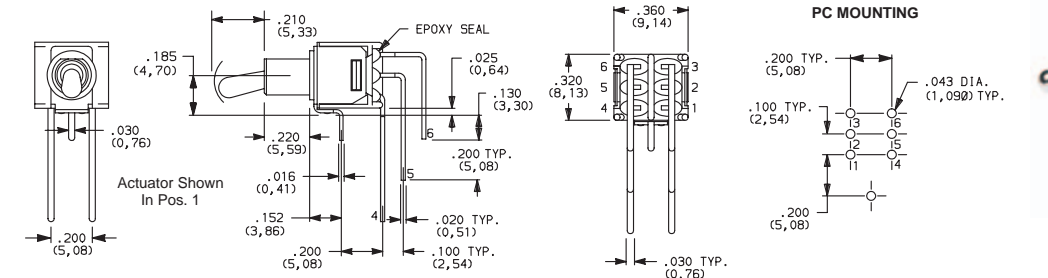
### AV (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE



T102 Models: Omit terminal 2

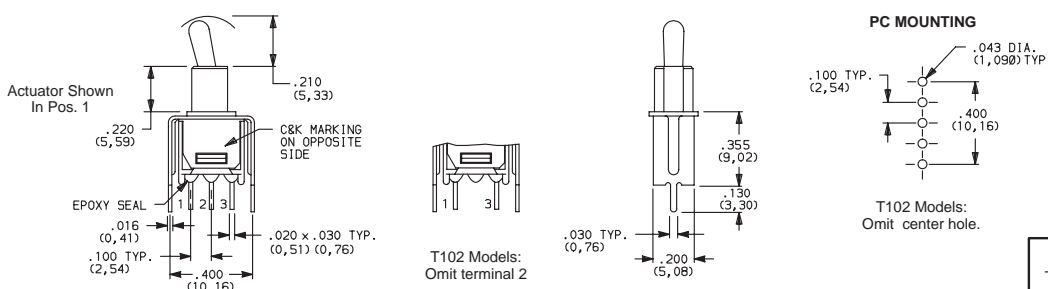
NOTE: Terminal bend radii and lead-in manufacturing option.

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



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

### V3 (STD.) VERTICAL MOUNT, V-BRACKET



Third Angle Projection

Dimensions are shown: IN (mm)  
Dimensions subject to change

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F

Toggle

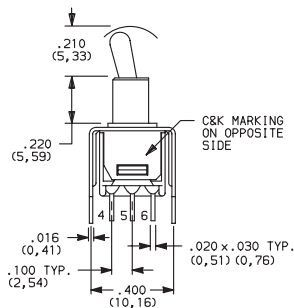
# C&K T Series Subminiature Toggle Switches

## TERMINATIONS

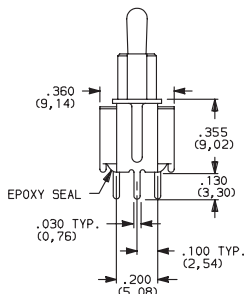
### V3 (STD.) VERTICAL MOUNT, V-BRACKET



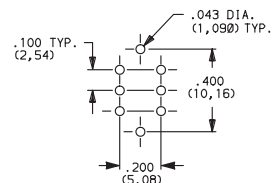
T201MH9V3BE  
DPDT



Actuator Shown In Pos. 1



### PC MOUNTING



## CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
B (STD.)	GOLD <sup>1</sup>	GOLD <sup>1</sup>	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.
K		TIN-LEAD <sup>6</sup>		
Q (STD.)	SILVER <sup>4,5</sup>	SILVER <sup>5</sup>	POWER	TX01 MODELS: 3 AMPS @ 120 V AC OR 28 V DC. ALL OTHER MODELS: 2 AMPS @ 120 V AC OR 28 V DC.
G	GOLD OVER SILVER <sup>2,3</sup>	GOLD <sup>3</sup>	LOW LEVEL/DRY CIRCUIT OR POWER	TX01 MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 3 AMPS @ 120 V AC OR 28 V DC. ALL OTHER MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 2 AMPS @ 120 V AC OR 28 V DC.
L		TIN-LEAD <sup>6</sup>		

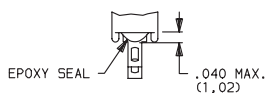
CONTACT MATERIAL/APPLICATION RECOMMENDATIONS-SEE SECTION N.

- CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.
- END CONTACTS: Coin silver, with gold plate over nickel plate.
- CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.
- END CONTACTS: Coin silver, silver plated.
- CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.
- TERMINALS: Copper alloy, with tin-lead alloy over nickel plate.

All models with all options when ordered with G, L 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



F

Toggle