

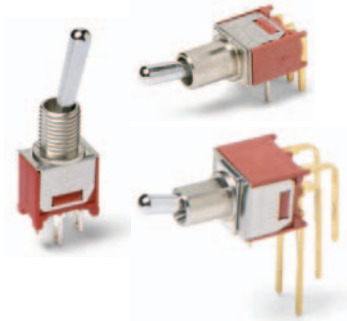
C&K T Series Subminiature Toggle Switches

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: $10^9 \Omega$ 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.

Switch Function T101 (STD.) SPDT On-None-On T102 SPST Off-None-On T103 (STD.) SPDT On-Off-On T105 (STD.) SPDT Mom.-Off-Mom. T107 SPDT On-Off-Mom. T108 SPDT On-None-Mom. T201 (STD.) DPDT On-None-On T203 DPDT On-Off-On T205 DPDT Mom.-Off-Mom. T207 DPDT On-Off-Mom. T208 DPDT On-None-Mom. T211 DPDT On-On-On	Actuator M (STD.) .210" high P3 (STD.) Flatted, anti-rotation, .490" high S (STD.) .370" high K Locking lever, round tip K1 Locking lever, bevel tip L .290" high L1 .620" high M1 .220" high S1 .410" high	Bushing H (STD.) .220" high, threaded, flat H9 (STD.) .220" high, unthreaded, flat CF Splashproof, .310" high, threaded, flat D9 .260" high, unthreaded, keyway T .310" high, threaded, flat T9 .310" high, unthreaded, flat TD .260" high, threaded, keyway TK .310" high, threaded, keyway Y .220" high, threaded, keyway Y9 .220" high, unthreaded, keyway	Terminations A (STD.) Right angle, PC thru-hole AV (STD.) Vertical right angle, PC thru-hole C (STD.) PC Thru-hole V3 (STD.) Vertical mount V-bracket Z (STD.) Solder lug W Wire wrap Contact Material B (STD.) Gold Q (STD.) Silver K Gold, tin-lead G Gold over silver L Gold over silver, tin-lead
			Seal E (STD.) Epoxy



F

Toggle

C&K T Series Subminiature Toggle Switches

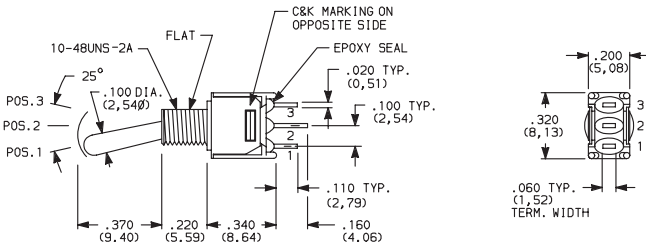
SWITCH FUNCTION



NO. POLES	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS			SCHEMATIC
		POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
								
		C&K marking on opposite side			C&K marking on opposite side			

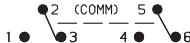
SP	T101 (STD.)	ON	NONE	ON	2-3	N/A	2-1	
	T103 (STD.)	ON	OFF	ON	2-3	OPEN	2-1	
	T105 (STD.)	MOM.	OFF	MOM.				
	T107	ON	OFF	MOM.				
	T108	ON	NONE	MOM.	2-3	N/A	2-1	SPDT
	T102	OFF	NONE	ON	OPEN	N/A	3-1	SPST 

SPDT

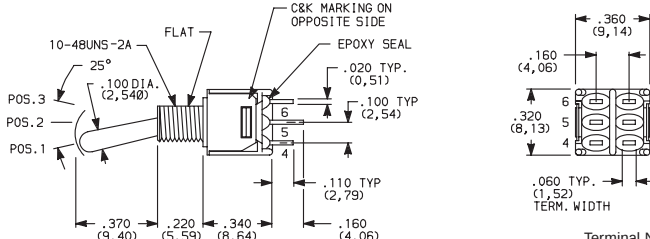


Part number shown: T101SHZQE T102 Models: Omit terminal 2

Terminal Nos.
For Reference Only

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	DPDT
	T211*	ON	ON	ON	2-3,5-6	2-3,5-4	2-1,5-4	

DPDT



Part number shown: T201SHZQE

Terminal Nos.
For Reference Only

MOM. = Momentary

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

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

Third Angle Projection

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

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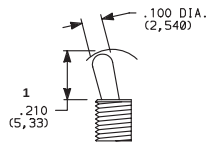


Toggle

C&K T Series Subminiature Toggle Switches

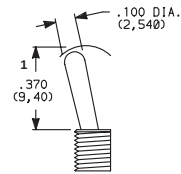
ACTUATOR

M (STD.) .210" HIGH



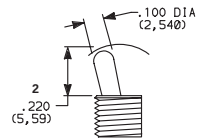
Standard with A, AV or V3 terminations.

S (STD.) .370" HIGH

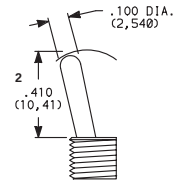


Standard with Z, C or W terminations.

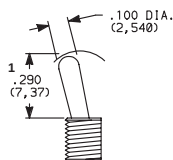
M1 .220" HIGH
(with "T" bushing)



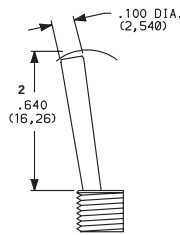
S1 .410" HIGH
(with "T" bushing)



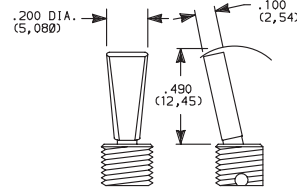
L .290" HIGH



L1 .620" HIGH



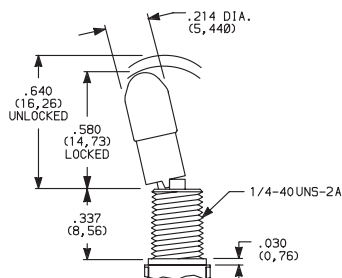
P3 (STD.) ANTI-ROTATION, FLATTED,
.450" HIGH



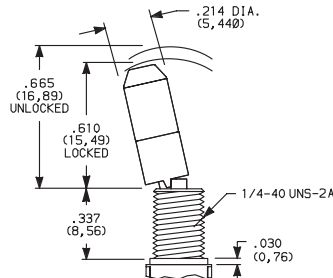
¹ Actuator shown with standard H bushing. Subtract .040 (1,02) for TD and D9 bushings, subtract .090 (2,29) for T, T9, TK, K9 & CF bushings.
² Actuators shown with T, T9, TK & CF bushings, add .050 (1,27) for TD and D9 bushings, add .090 (2,29) for H, H9, Y & Y9 bushings.
All actuators have chrome finish (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.

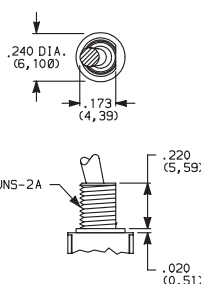
Not available with CF bushing option.

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

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.

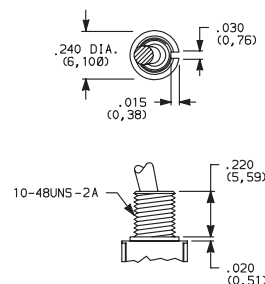
BUSHING

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



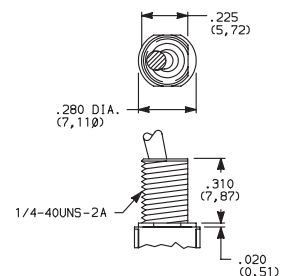
H standard with C, W & Z terminations.
H9 standard with A, AV & V3 terminations.

Y .220" HIGH THREADED, KEYWAY



T .310" HIGH THREADED, FLAT

T9 .310" HIGH UNTHREADED, FLAT



Third Angle Projection

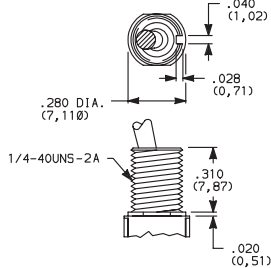
Dimensions are shown: IN (mm)
Dimensions subject to change

C&K T Series Subminiature Toggle Switches

BUSHING

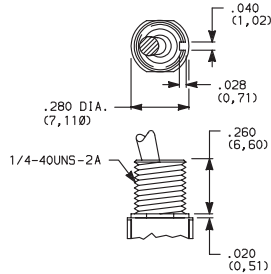


TK .310" HIGH THREADED, KEYWAY

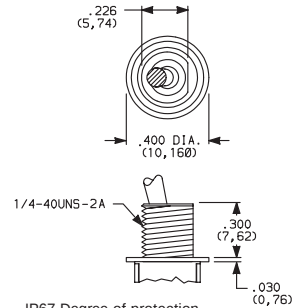


TD .260" HIGH THREADED, KEYWAY

D9 .260" HIGH UNTHREADED, KEYWAY

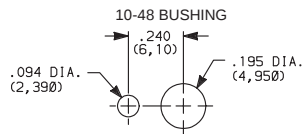


CF SPLASHPROOF, .310" HIGH THREADED, FLAT

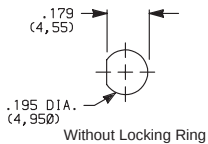


IP67 Degree of protection.
Internal o-ring actuator seal and
external bushing seal washer standard.

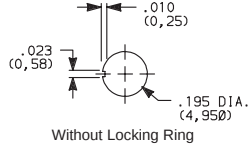
Not available with K locking lever option.



With Standard Locking Ring

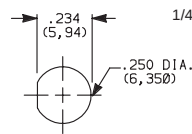


Without Locking Ring

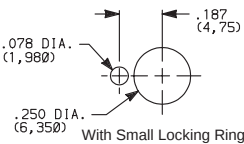


Without Locking Ring

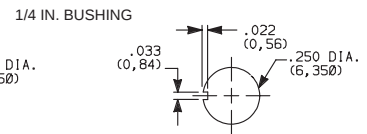
PANEL MOUNTING



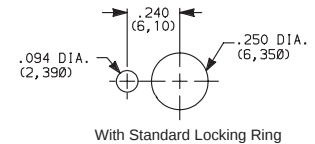
Without Locking Ring



With Small Locking Ring



Without Locking Ring

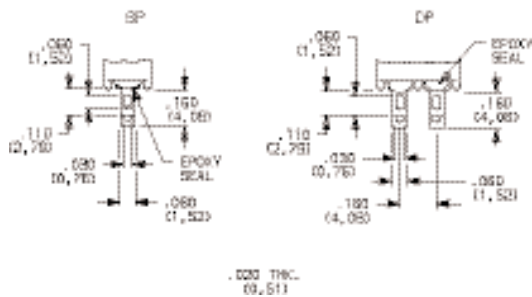


With Standard Locking Ring

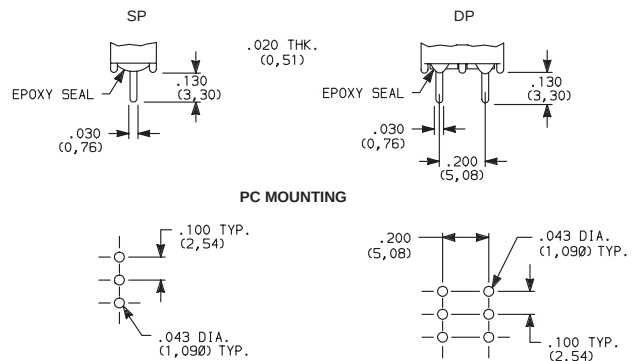
TERMINATIONS



Z (STD.) SOLDER LUG



C (STD.) PC THRU-HOLE



T102 - omit center hole.

W WIRE WRAP



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

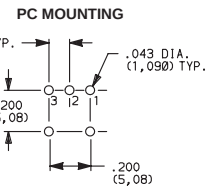
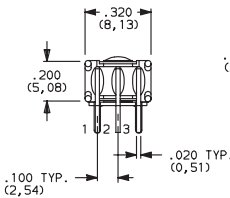
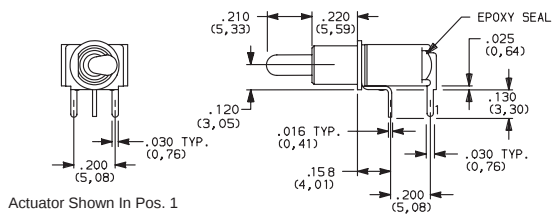
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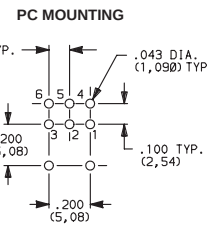
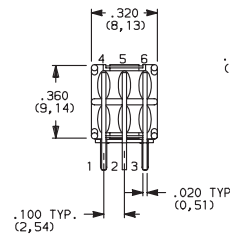
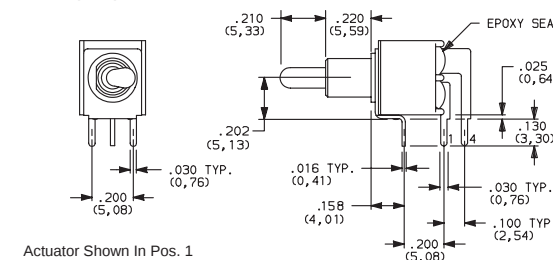
TERMINATIONS



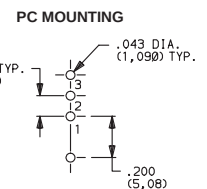
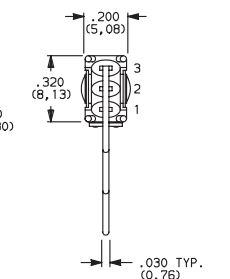
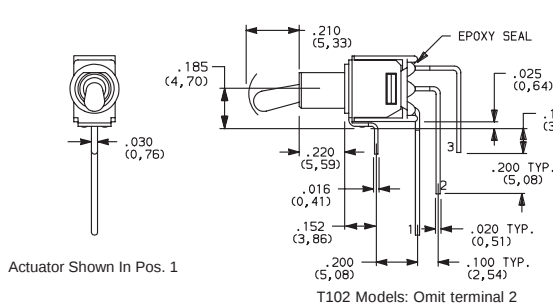
A (STD.) RIGHT ANGLE, PC THRU-HOLE



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

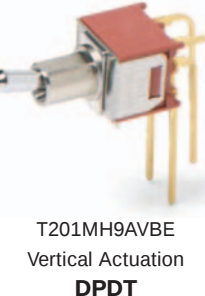
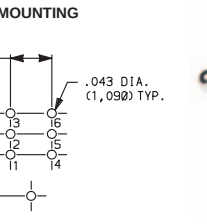
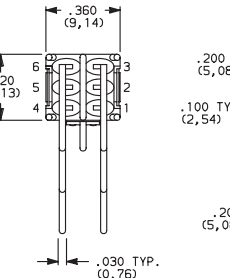
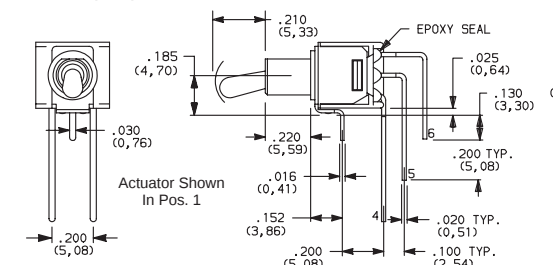


AV (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE



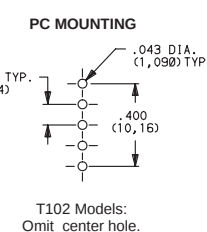
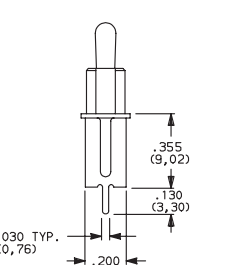
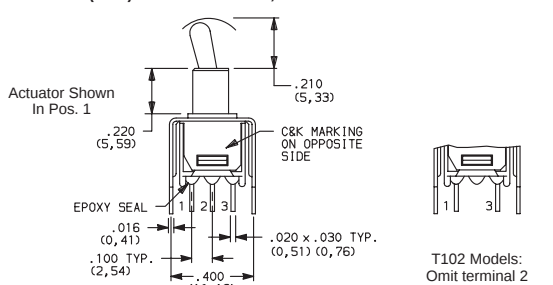
NOTE: Terminal bend radii and lead-in manufacturing option.

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



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

V3 (STD.) VERTICAL MOUNT, V-BRACKET

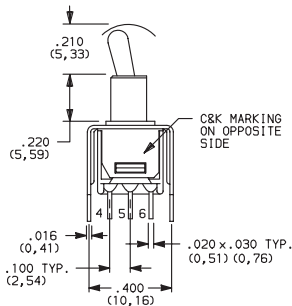


Dimensions are shown: IN (mm)
Dimensions subject to change

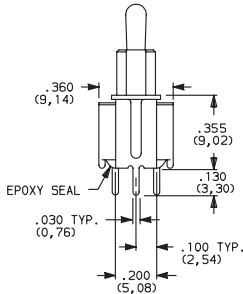
C&K T Series Subminiature Toggle Switches

TERMINATIONS

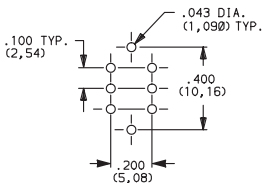
V3 (STD.) VERTICAL MOUNT, V-BRACKET



Actuator Shown In Pos. 1



PC MOUNTING



CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
B (STD.)	GOLD ¹	GOLD ¹	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.
K		TIN-LEAD ⁶		
Q (STD.)	SILVER ^{4,5}	SILVER ⁵	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 ^{2,3}	GOLD ³	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 ⁶		

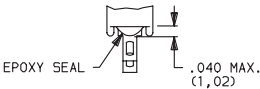
CONTACT MATERIAL/APPLICATION RECOMMENDATIONS-SEE SECTION N.

- 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.

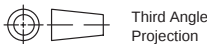
All models  with all options when ordered with G, L or Q contact material.
B contact material standard with A, AV, V3 & W terminations.
Q contact material standard with C & Z terminations.

SEAL

E (STD.) EPOXY SEAL



Toggle



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