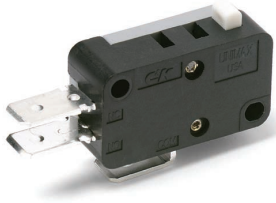


C&K TM Series Miniature Snap-acting Switches



Features/Benefits

- High electrical life up to 15 AMPS
- Broad range of operating forces available
- Wide variety of actuator and terminal styles
- Cost-effective solution

Typical Applications

- Pumps and motors
- White goods
- Consumer appliances



Specifications

CONTACT RATING: From low level* to 15 AMPS @ 250 V AC.
 ELECTRICAL LIFE: 150,000 cycles at 15 AMPS @ 250 V AC, models with 150 grams operating force. 350,000 cycles at 10 AMPS @ 250 V AC, models with 75 grams operating force.
 INSULATION RESISTANCE: 1,000 M Ω min.
 DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.
 OPERATING TEMPERATURE: -67°F to 302°F (-55°C to 150°C).
 OPERATING FORCE: 50, 75 and 150 grams at actuator available; refer to chart for lever style forces.
 MOUNTING: Torque screws 2-5 in/lbs.

* Low Level=conditions where no arcing occurs during switching, i.e., 0.4 VA max. @ 20 V AC or DC max.

Materials

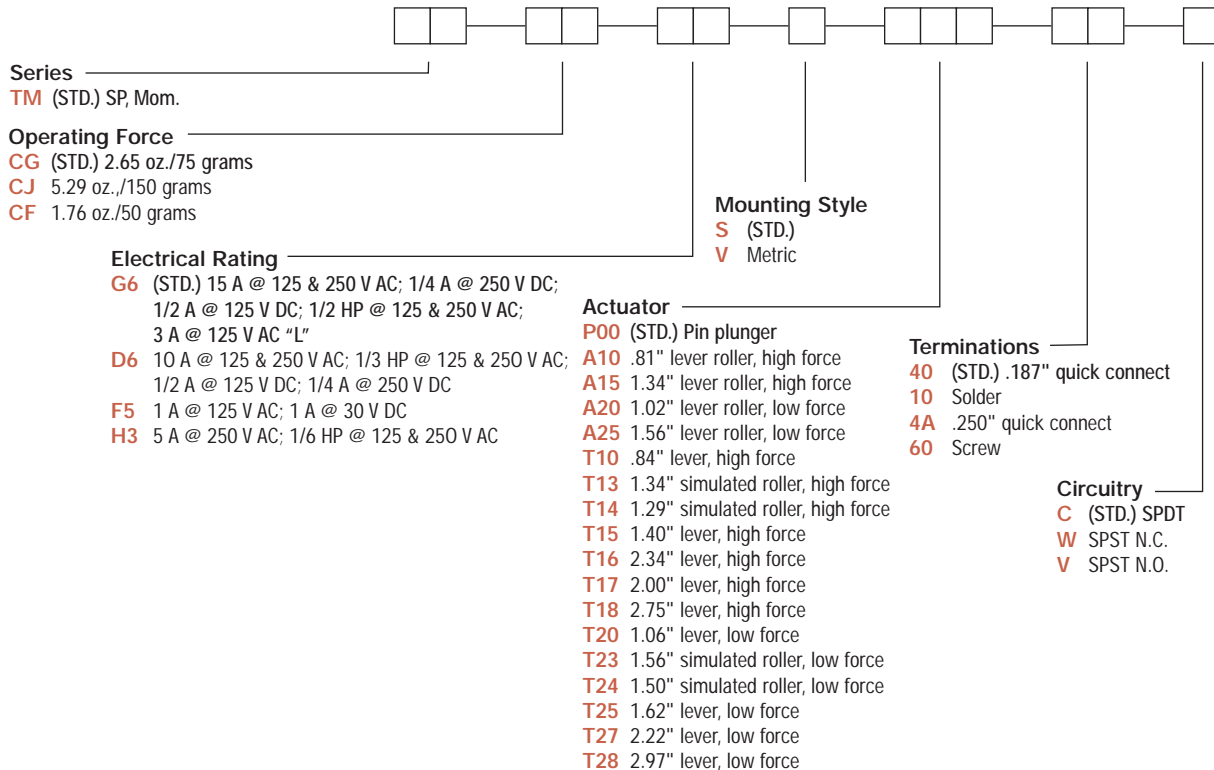
SWITCH HOUSING: Thermoplastic or general purpose phenolic (UL 94V-0).
 ACTUATOR BUTTON: Thermoplastic (UL 94V-0).
 SPRING: Copper alloy.
 PIVOT: Brass alloy.
 MOVABLE CONTACTS: Gold alloy for ratings 1 AMP @ 125 V AC or less. Fine silver for ratings greater than 1 AMP @ 125 V AC.
 STATIONARY CONTACTS: Gold alloy for ratings 1 AMP or less. Fine silver for ratings greater than 1 AMP.
 TERMINALS: Brass alloy for ratings up to 10 AMPS @ 250 V AC. Copper alloy for 15 AMPS @ 250 V AC ratings.

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-13 thru J-17. For additional options not shown in catalog, consult Customer Service Center.

Available extended electrical life per UL 1054, rated for 100,000 operations, consult factory.

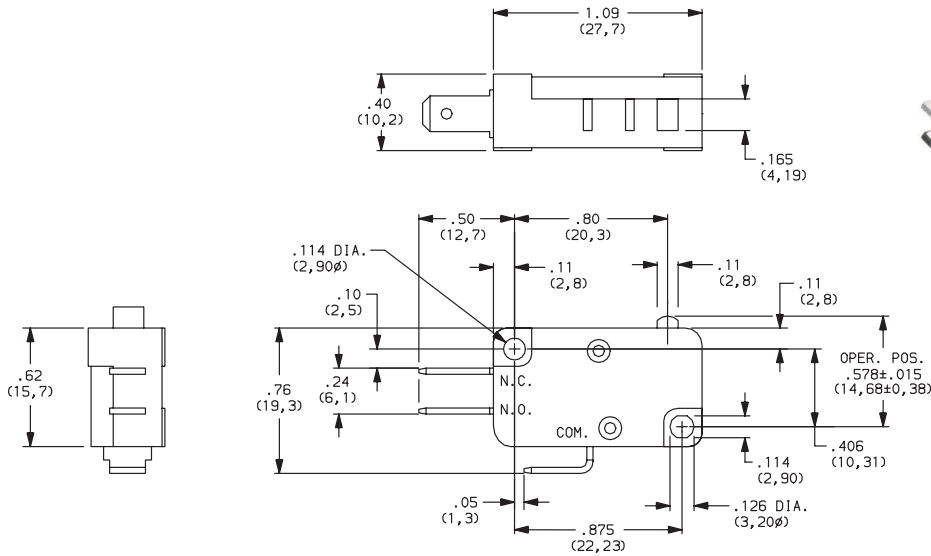


Snap-acting

C&K TM Series Miniature Snap-acting Switches

SERIES 

TM (STD.) MINIATURE SNAP-ACTING SWITCHES – SP MOMENTARY



OPERATING FORCE 

OPTION CODE	BASIC SWITCH OPERATING FORCE (OZ./GRAMS)
CG (STD.)	2.65 75
CJ	5.29 150
CF	1.76 50

Operating Force option 'CF' not available with 'T18, T27 and T28' actuator options. Operating force varies with actuator option, see ACTUATOR option section.

ELECTRICAL RATING 

OPTION CODE	CONTACT MATERIAL		ELECTRICAL RATING
	MOVABLE CONTACT	STATIONARY CONTACT	
D6	Fine silver	Fine silver	10 AMPS @ 125 & 250 V AC; 1/3 HP @ 125 & 250 V AC; 1/2 AMP @ 125 V DC; 1/4 AMP @ 250 V DC.
F5	Gold alloy	Gold alloy	From low level* to 1 AMP @ 125 V AC, 1 AMP @ 30 V DC.
G6 (STD.)	Fine silver	Fine silver	15 AMPS @ 125 & 250 V AC; 0.25 AMP @ 250 V DC; 0.5 AMP @ 125 V DC; 1/2 HP @ 125 & 250 V AC; 3 AMPS @ 125 V AC "L".
H3			5 AMPS @ 250 V AC; 1/6 HP @ 125 & 250 V AC.

All models  with all options.

Contact Customer Service Center for availability and delivery of nonstandard ratings.

* Low Level=conditions where no arcing occurs during switching, i.e., 0.4 VA max. @ 20 V AC or DC max.



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



Cannon



Snap-acting



C&K TM Series Miniature Snap-acting Switches

ELECTRICAL RATING

AVAILABLE COMBINATIONS

ELECTRICAL RATING	MAXIMUM OPERATING FORCE (OZ./GRAMS)		
	1.76 50	2.65 75	5.29 150
D6	•	•	•
F5	•	•	•
G6	X	X	•
H3	•	•	•

• AVAILABLE
X NOT AVAILABLE

All models   with all options.
Contact Customer Service Center for availability and delivery of nonstandard ratings.

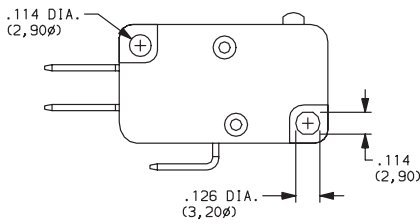
* Low Level=conditions where no arcing occurs during switching, i.e., 0.4 VA max. @ 20 V AC or DC max.

MOUNTING STYLE

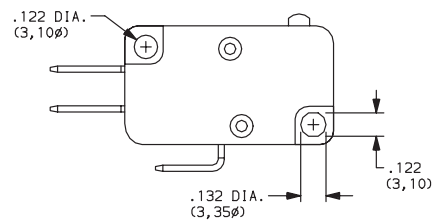
Snap-acting

S (STD.)

V (METRIC)



Recommended maximum screw size: 4-40.



Recommended maximum screw size: 3 mm.

NOTE: Torque mounting screws 2-5 in/lbs.

ACTUATOR

OPTION CODE	FIG.	DIM. A	DIM. B	DIM. C	DIM. D
P00 (STD.)	2	.80 (20,3)	—	.578 ± .015 (14,68 ± 0,38)	—
A10	1	.81 (20,6)	.36 (9,1)	.810 ± .020 (20,57 ± 0,51)	.19 dia. (4,8Ø)
A15	1	1.34 (34,0)	.36 (9,1)	.810 ± .040 (20,57 ± 1,02)	.19 dia. (4,8Ø)
A20	1	1.03 (26,2)	.58 (14,7)	.810 ± .050 (20,57 ± 1,27)	.19 dia. (4,8Ø)
A25	1	1.56 (39,6)	.58 (14,7)	.810 ± .080 (20,57 ± 2,03)	.19 dia. (4,8Ø)

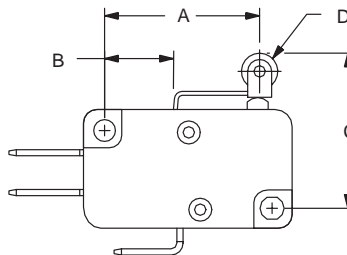


FIG. 1
Lever Roller

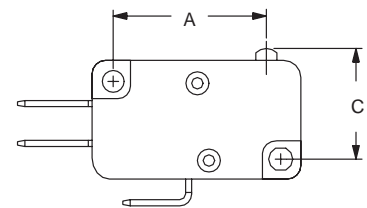
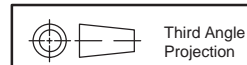


FIG. 2
Pin Roller



Third Angle Projection
Dimensions are shown: IN (mm)
Dimensions subject to change

C&K TM Series Miniature Snap-acting Switches

ACTUATOR

OPTION CODE	FIG.	DIM. A	DIM. B	DIM. C	DIM. D
T10	3	.84 (21,3)	.36 (9,1)	.600 ± .020 (15,24 ± 0,51)	—
T13	4	1.34 (34,0)	.36 (9,1)	.810 ± .040 (20,57 ± 1,02)	.19 dia. (4,80)
T14	4	1.29 (32,8)	.36 (9,1)	.740 ± .050 (18,8 ± 1,3)	.25 dia. (6,40)
T15	3	1.40 (35,6)	.36 (9,1)	.600 ± .040 (15,24 ± 1,02)	—
T16	3	2.34 (59,4)	.36 (9,1)	.600 ± .062 (15,24 ± 1,57)	—
T17	3	2.00 (50,8)	.36 (9,1)	.600 ± .052 (15,24 ± 1,57)	—
T18	3	2.75 (69,9)	.36 (9,1)	.600 ± .093 (15,24 ± 2,36)	—
T20	3	1.06 (26,9)	.58 (14,7)	.600 ± .045 (15,24 ± 1,14)	—
T23	4	1.56 (39,6)	.58 (14,7)	.810 ± .065 (20,57 ± 1,65)	.19 dia. (4,80)
T24	4	1.50 (38,1)	.58 (14,7)	.740 ± .090 (18,80 ± 2,29)	.25 dia. (6,40)
T25	3	1.62 (41,1)	.58 (14,7)	.600 ± .080 (15,24 ± 2,03)	—
T27	3	2.22 (56,4)	.58 (14,7)	.600 ± .125 (15,24 ± 3,18)	—
T28	3	2.97 (75,4)	.58 (14,7)	.600 ± .187 (15,24 ± 4,75)	—

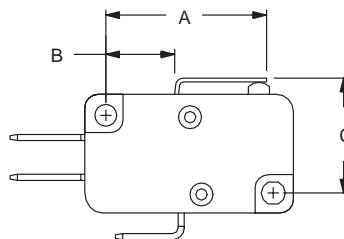


FIG. 3
Lever

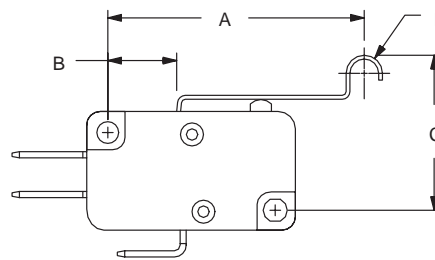


FIG. 4
Simulated Roller



Snap-acting

SWITCH CHARACTERISTICS

OPTION CODE	MAXIMUM OPERATING FORCE (OZ./GRAMS)			MINIMUM RELEASE FORCE (OZ./GRAMS)			MINIMUM RETURN FORCE (OZ./GRAMS)			MAXIMUM DIFFERENTIAL TRAVEL	MAXIMUM PRETRAVEL	MINIMUM OVERTRAVEL
	CF	CG	CJ	CF	CG	CJ	CF	CG	CJ	ALL FORCES	ALL FORCES	ALL FORCES
A10	2.12 60	3.17 90	6.35 180	.49 14	.99 28	1.69 48	.25 7	.53 15	1.06 30	.013 (0,33)	.070 (1,78)	.040 (1,02)
A15	1.06 30	1.59 45	2.82 80	.21 6	.35 10	.71 20	.11 3	.14 4	.35 10	.030 (0,76)	.160 (4,06)	.065 (1,65)
A20	1.06 30	1.76 50	3.17 90	.25 7	.35 10	.71 20	.11 3	.18 5	.35 10	.025 (0,64)	.140 (3,56)	.060 (1,52)
A25	.53 15	1.06 30	1.59 45	.11 3	.18 5	.35 10	.04 1	.07 2	.18 5	.070 (1,78)	.312 (7,92)	.125 (3,18)
P00	1.76 50	2.65 75	5.29 150	.71 20	.99 28	2.12 60	.35 10	.53 15	1.06 30	.013 (0,33)	.056 (1,42)	.040 (1,02)

NOTE: For basic switch operating forces, see page J-6.



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

C&K TM Series Miniature Snap-acting Switches

ACTUATOR 

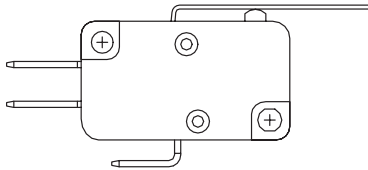
SWITCH CHARACTERISTICS

OPTION CODE	MAXIMUM OPERATING FORCE (OZ./GRAMS)			MINIMUM RELEASE FORCE (OZ./GRAMS)			MINIMUM RETURN FORCE (OZ./GRAMS)			MAXIMUM DIFFERENTIAL TRAVEL	MAXIMUM PRETRAVEL	MINIMUM OVERTRAVEL
	CF	CG	CJ	CF	CG	CJ	CF	CG	CJ	ALL FORCES	ALL FORCES	ALL FORCES
T10	2.12 60	3.17 90	6.35 180	.49 14	.99 28	1.69 48	.25 7	.53 15	1.06 30	.013 (0,33)	.080 (2,03)	.040 (1,02)
T13	1.06 30	1.59 45	2.82 80	.21 6	.35 10	.71 20	.11 3	.14 4	.35 10	.030 (0,76)	.160 (4,06)	.065 (1,65)
T13	1.06 30	1.76 50	3.17 90	.25 7	.35 10	.71 20	.11 3	.14 4	.35 10	.050 (1,27)	.140 (3,56)	.062 (1,57)
T15	1.06 30	1.59 45	2.28 80	.21 6	.32 9	.71 20	.11 3	.14 4	.35 10	.032 (0,81)	.160 (4,06)	.075 (1,90)
T16	.53 15	.71 20	1.41 40	.11 3	.18 5	.35 10	.05 1.5	.07 2	.18 5	.090 (2,29)	.312 (7,92)	.140 (3,56)
T17	.71 20	.88 25	1.76 50	.14 4	.21 6	.42 12	.07 2	.07 2	.21 6	.062 (1,57)	.220 (5,59)	.110 (2,79)
T18	N/A	.71 20	1.23 35	N/A	.14 4	.28 8	N/A	.04 1	.14 4	.078 (1,98)	.375 (9,52)	.160 (4,06)
T20	1.06 30	1.59 45	3.17 90	.21 6	.32 9	.71 20	.11 3	.18 5	.35 10	.030 (0,76)	.160 (4,06)	.065 (1,65)
T23	.53 15	1.06 30	1.59 45	.11 3	.18 5	.35 10	.04 1	.07 2	.18 5	.070 (1,78)	.312 (7,92)	.125 (3,18)
T24	.53 15	1.23 35	1.76 50	.11 3	.18 5	.35 10	.05 1.5	.07 2	.18 5	.080 (2,03)	.312 (7,92)	.110 (2,79)
T25	.71 20	1.06 30	1.41 40	.07 2	.14 4	.32 9	.04 1	.07 2	.16 4.5	.070 (1,78)	.330 (8,38)	.100 (2,54)
T27	N/A	.60 17	.88 25	N/A	.11 3	.21 6	N/A	.04 1	.11 3	.125 (3,18)	.500 (12,70)	.200 (5,08)
T28	N/A	.42 12	.63 18	N/A	.07 2	.14 4	N/A	.04 1	.07 2	.187 (4,75)	.750 (19,05)	.280 (7,11)

NOTE: For basic switch operating forces, see page J-13.

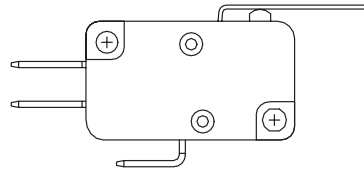
Snap-acting

HIGH FORCE, LOW MOTION PIVOT POSITION



Available with actuators A10, A15, T10, T13, T14, T15, T16, T17 and T18.

LOW FORCE, HIGH MOTION PIVOT POSITION



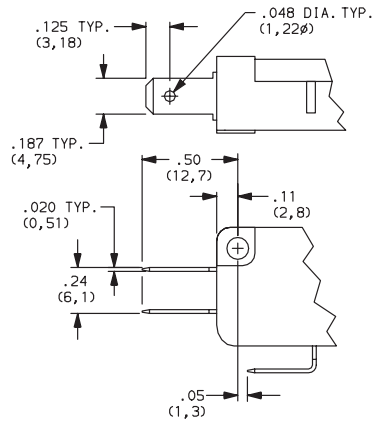
Available with actuators A20, A25, T20, T23, T24, T25, T27 and T28.

NOTE: Lever actuator options are available in either of two pivot positions. Levers located in the forward pivot position have lower forces and higher motions. Levers located in the rear pivot position have higher forces and lower motions.

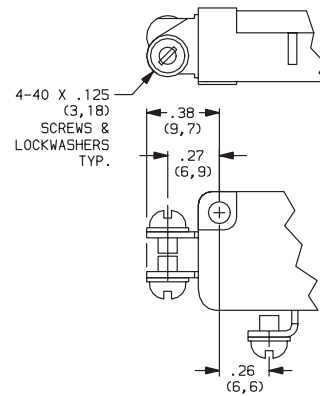
C&K TM Series Miniature Snap-acting Switches

TERMINATIONS

40 (STD.) .187" QUICK CONNECT

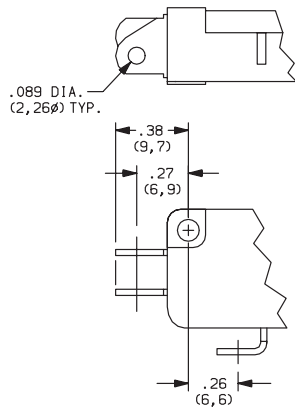


60 SCREW TERMINALS



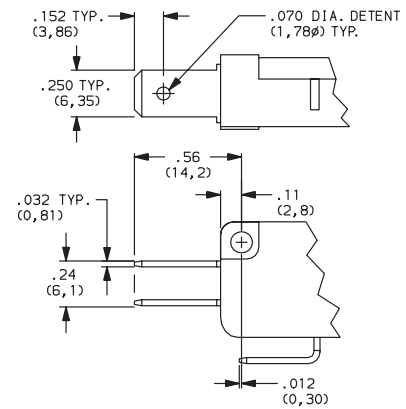
Not available with 'F5' rating option.

10 SOLDER



Not available with 'F5' rating option.

4A .250" QUICK CONNECT



Not available with 'F5' rating option.



Snap-acting

CIRCUITRY

- C** (STD.) SPDT (Single Pole, Double Throw)
- W** SPST N.C. (Single Pole, Single Throw, Normally Closed)
- Y** SPST N.O. (Single Pole, Single Throw, Normally Open)



Third Angle
Projection
Dimensions are shown: IN (mm)
Dimensions subject to change