

C&K LC Series Subminiature Precision Snap-acting Switches



Features/Benefits

- Compact design
- Long life and high electrical capacity
- Quick connect, wire lead or PC mounting
- Wide variety of actuator styles

Typical Applications

- Motorized equipment
- Sump pump
- Thermostatic controls



Specifications

CONTACT RATING: From low level* to 10.1 AMPS @ 250 V AC.

ELECTRICAL LIFE: 100,000 cycles at 5 AMPS @ 250 V AC.

INSULATION RESISTANCE: 1,000 M Ω min.

DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -17°F to 185°F (-25°C to 85°C).

OPERATING FORCE: From 142 to 170 grams at actuator button.

Forces are less at free end of lever actuators; (see OPERATING FORCE and ACTUATOR option sections).

MOUNTING: 2-56 screws, torque 2.3 in/lbs max.

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

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

Materials

SWITCH HOUSING: Thermoplastic polyester or high temperature thermoplastic (PTS) (UL 94V-0).

ACTUATOR BUTTON: Thermoplastic polyester (UL 94V-0).

SPRING: Copper alloy.

PIVOT: Copper alloy.

MOVABLE CONTACTS: Fine silver for ratings greater than 1 AMP @ 125 V AC. Fine silver with 24K gold plate for 1 AMP @ 125 V AC or less.

STATIONARY CONTACTS: Fine silver welded on copper alloy for ratings greater than 1 AMP @ 125 V AC. Gold alloy welded on copper alloy for ratings less than 1 AMP @ 125 V AC.

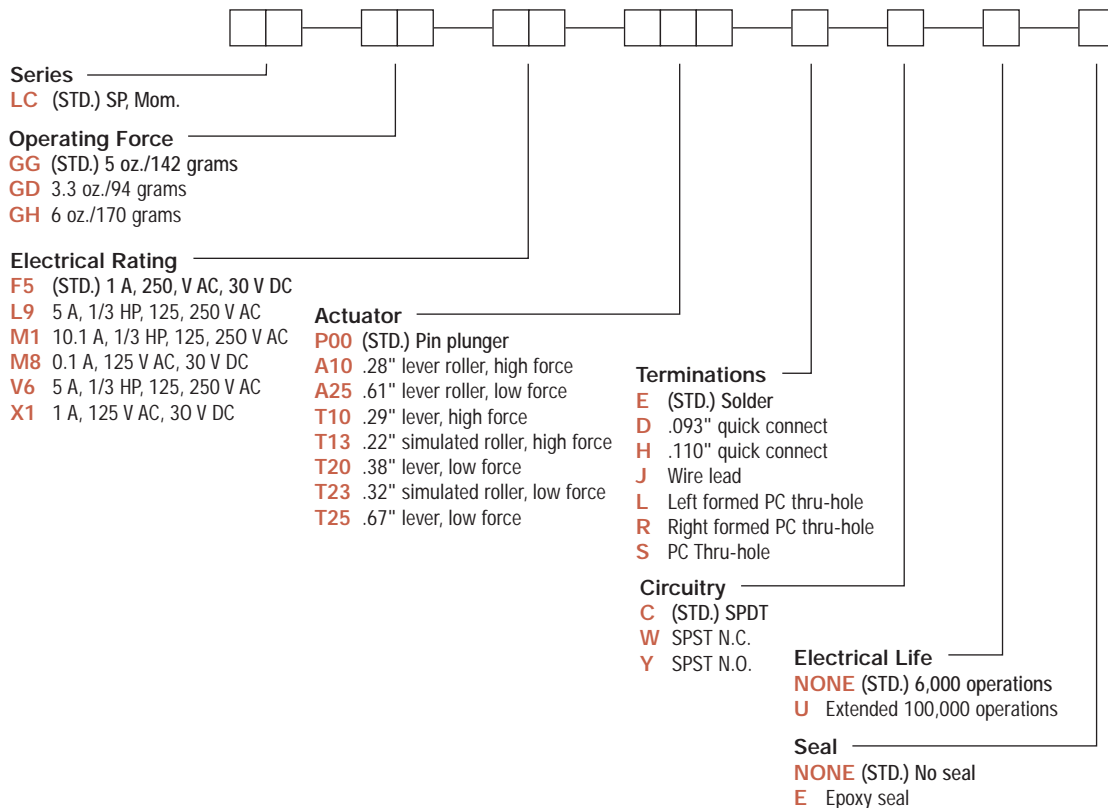
TERMINALS: Copper alloy.

TERMINAL SEAL: Epoxy.

Snap-acting

Build-A-Switch

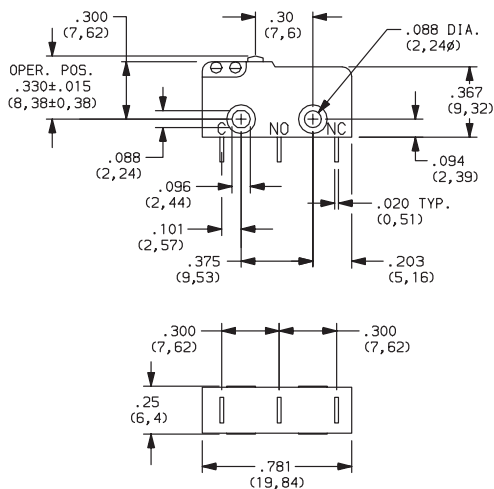
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages J-19 thru J-22. For additional options not shown in catalog, consult Customer Service Center.



C&K LC Series Subminiature Precision Snap-acting Switches

SERIES ■■■■■■■■■■

LC (STD.) SUBMINIATURE PRECISION SNAP-ACTING SWITCHES
SP MOMENTARY



OPERATING FORCE ■■■■■■■■■■

OPTION CODE	BASIC SWITCH OPERATING FORCES (OZ./GRAMS)
GG (STD.)	5 142
GD	3.3 94
GH	6 170

NOTE: Operating force varies with actuator option, see ACTUATOR option section.

ELECTRICAL RATING ■■■■■■■■■■

OPTION CODE		CONTACT MATERIAL		ELECTRICAL RATING
DOMESTIC RU Ⓢ	INTERNATIONAL RU Ⓢ Ⓢ	MOVABLE CONTACT	STATIONARY CONTACT	
F5 (STD.)	X1	Fine silver with 24K gold plate.	Fine silver with 24K gold plate on copper base alloy.	From low level* to 1 AMP @ 125 V AC, 30 V DC.
L9	V6	Fine silver.	Fine silver welded on copper base alloy.	5 AMPS, 1/3 HP @ 125 & 250 V AC.
M1				10.1 AMPS, 1/3 HP @ 125 & 250 V AC.
M8		Fine silver with 24K gold plate.	Fine silver with 24K gold plate on copper base alloy.	From low level* to 0.1 AMP @ 125 V AC, 30 V DC.

All models Ⓢ Ⓢ with all options, Ⓢ also available.

Consult 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



Snap-acting

C&K LC Series Subminiature Precision Snap-acting Switches

ACTUATOR

OPTION CODE	FIG.	DIM. A	DIM. B	DIM. C
P00 (STD.)	7	.30 (7,6)	.330 ± .015 (8,38 ± 0,38)	—
A10	1	.28 (7,1)	.560 ± .070 (14,22 ± 1,78)	.19 dia. (4,80)
A25	2	.61 (15,5)	.560 ± .175 (14,22 ± 4,45)	.19 dia. (4,80)
T10	3	.29 (7,4)	.340 ± .070 (8,64 ± 1,78)	—
T13	5	.22 (5,6)	.455 ± .065 (11,56 ± 1,65)	—
T20	4	.39 (9,9)	.340 ± .140 (8,64 ± 3,56)	—
T23	6	.32 (8,1)	.455 ± .125 (11,56 ± 3,18)	—
T25	4	.67 (17,0)	.340 ± .185 (8,64 ± 4,70)	—

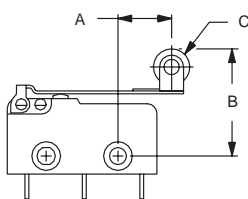


FIG. 1
Lever Roller

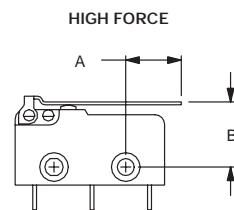


FIG. 3
Lever

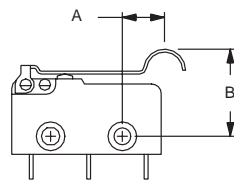


FIG. 5
Simulated Roller

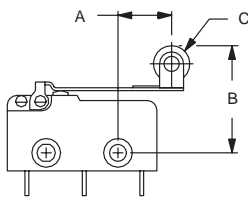


FIG. 2
Lever Roller

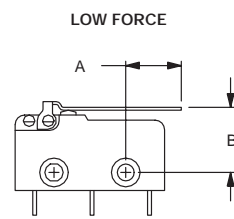


FIG. 4
Lever

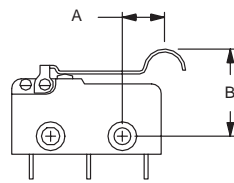


FIG. 6
Simulated Roller

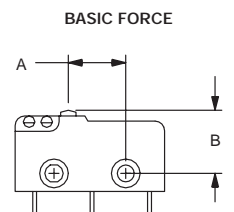


FIG. 7
Pin Plunger

SWITCH CHARACTERISTICS

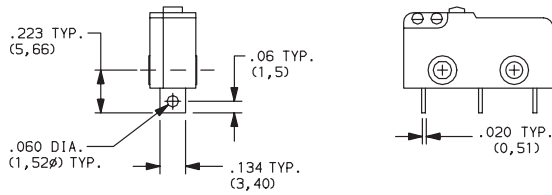
OPTION CODE	MAXIMUM OPERATING FORCE (OZ./GRAMS)			MINIMUM RELEASE FORCE (OZ./GRAMS)			MAXIMUM DIFFERENTIAL TRAVEL	MAXIMUM PRETRAVEL	MINIMUM OVERTRAVEL
	GG	GD	GH	GG	GD	GH	ALL FORCES	ALL FORCES	ALL FORCES
A10	1.69 48	1 28	2.0 57	.21 6	.11 3	.42 12	.034 (0,86)	.140 (3,56)	.029 (0,74)
A15	1.3 37	.68 19	1.6 44	.16 4.5	.07 2	.32 9	.044 (1,12)	.180 (4,57)	.037 (0,94)
A20	0.9 26	.52 15	1.1 31	.11 3	.05 15	.21 6	.067 (1,70)	.272 (6,91)	.053 (1,53)
A25	.70 20	.42 12	.85 24	.07 2	.04 1	.16 4.5	.086 (2,18)	.351 (8,92)	.068 (1,73)
P00	5 142	3.3 95	6 170	1 28	.05 14	2.0 57	.004 (0,10)	.030 (0,76)	.010 (0,25)
T10	1.7 48	1 28	2.1 60	.21 6	.10 3	.39 11	.035 (0,90)	.140 (3,56)	.029 (0,74)
T13	1.8 52	1.2 34	2.2 62	.21 6	.03 1	.42 12	.032 (0,81)	.130 (3,30)	.026 (0,66)
T20	0.9 26	.52 15	1.1 30	.10 3	.03 1	.21 6	.067 (1,70)	.276 (7,01)	.053 (1,35)
T23	1.0 28	.52 15	1.2 34	.10 3	.03 1	.21 6	.062 (1,57)	.252 (6,40)	.049 (1,24)
T25	0.7 19	.05 14	0.8 24	.07 2	.03 1	.14 4	.090 (2,29)	.372 (9,45)	.072 (1,83)

NOTE: For basic switch operating forces, see page J-19.

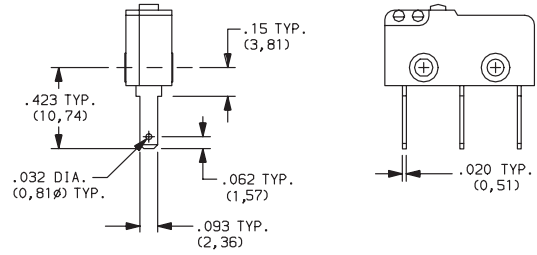
C&K LC Series Subminiature Precision Snap-acting Switches

TERMINATIONS

E (STD.) SOLDER

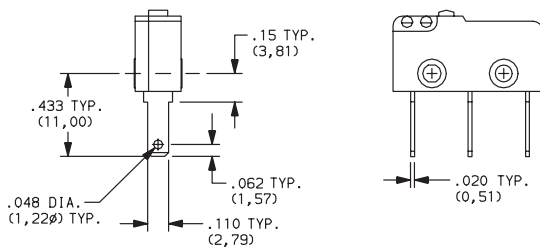


D .093" QUICK CONNECT



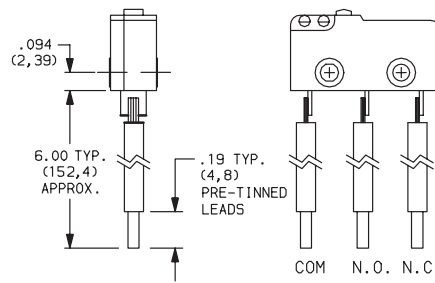
NOTE: Use Amp Quick Connect Part No. 60432-1.

H .110" QUICK CONNECT



NOTE: Use Amp Quick Connect Part No. 640932-1.

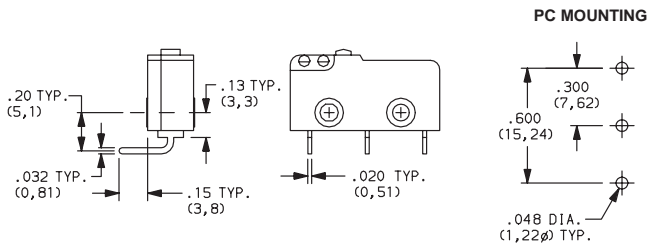
J WIRE LEAD



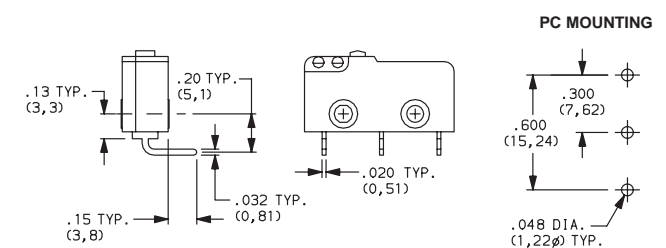
RATING	WIRE SIZE
1 AMP	22 AWG
5 AMPS	20 AWG
10.1 AMPS	18 AWG

TERMINAL	WIRE COLOR
COMMON	BLACK
NORMALLY OPEN	WHITE
NORMALLY CLOSED	RED

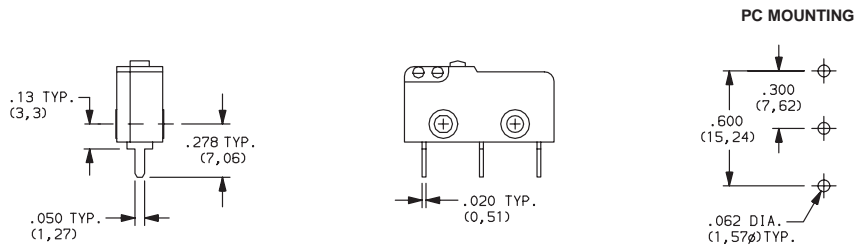
L LEFT FORMED PC THRU-HOLE



R RIGHT FORMED PC THRU-HOLE



S PC THRU-HOLE



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



Snap-acting

C&K LC Series Subminiature Precision Snap-acting Switches

ELECTRICAL LIFE

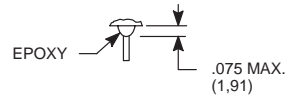
NONE (STD.) 6,000 OPERATIONS

U EXTENDED 100,000 OPERATIONS

SEAL

NONE (STD.) NO SEAL

E EPOXY SEAL



Snap-acting