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

INSULATION RESISTANCE: 1,000 M ohm 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.

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-18 through J-20. For additional options not shown in catalog, consult Customer Service Center.

L C

Series
LC SP, Mom.

Operating Force
GG 5 oz./142 grams
GD 3.3 oz./94 grams
GH 6 oz./170 grams

Electrical Rating
X1 UL 61058-1 (see chart)
V6 UL 61058-1 (see chart)
V7 UL 61058-1 (see chart)

F5 UL 1054 (see chart)
L9 UL 1054 (see chart)
M1 UL 1054 (see chart)

Actuator
P00 Pin plunger
A10 .28" lever roller, high force
A15 .51" lever roller, high force
A20 .39" lever roller, low force
A25 .61" lever roller, low force
T10 .29" lever, high force
T13 .22" simulated roller, high force
T15 .57" lever, high force
T20 .38" lever, low force
T23 .32" simulated roller, low force
T25 .67" lever, low force

Terminations
E Solder
H .110" quick connect
J Wire lead
L Left formed PC thru-hole
R Right formed PC thru-hole
S PC Thru-hole

Circuitry
C SPDT
W SPST N.C.
Y SPST N.O.

Electrical Life
NONE 6,000 operations
U* Extended 100,000 operations

Seal
NONE (STD.) No seal
E Epoxy seal

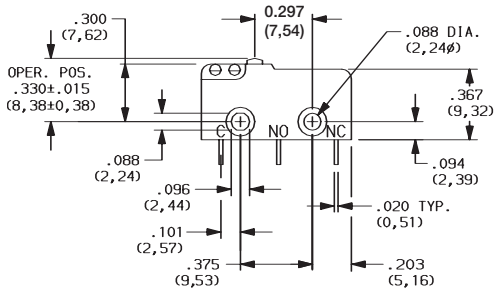
* Extended operations only available on Electrical Rating options F5, L9 and M1

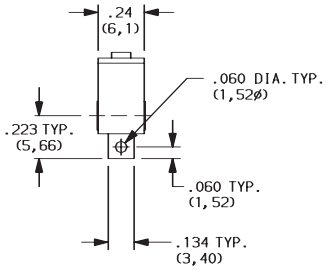
Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

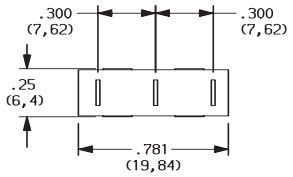
LC Series
Subminiature Precision Snap-acting Switches

SERIES

LC SUBMINIATURE PRECISION SNAP-ACTING SWITCHES
SP MOMENTARY







OPERATING FORCE

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

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

ELECTRICAL RATING

UL 61058-1

OPTION CODE	ELECTRICAL RATING	CONTACT MATERIAL: MOVABLE CONTACT	CONTACT MATERIAL: STATIONARY CONTACT	RoHS COMPLIANT*	RoHS COMPATIBLE*
X1	1A GP, 250 Vac, 50/60 Hz, 25E3, T85 1RA, 30 Vdc, 1E4, T85	Fine silver with 24K gold plate	Fine silver with 24K gold plate on copper base alloy	Yes	Yes
V6	5(2)A RM, 250 Vac, 50/60 Hz, 1E4, T85 5A GP, 250 Vac, 50/60 Hz, 1E4, T85 5RA, 30 Vdc, 1E4, T85 1/3 HP, 125/250 Vac, 50/60 Hz, 1E4, T85	Fine silver	Fine silver welded on copper base alloy	Yes	Yes
V7	10(2)A RM, 250 Vac, 50/60 Hz, 1E4, T85 10A GP, 250 Vac, 50/60 Hz, 1E4, T85 10RA, 30 Vdc, 1E4, T85 1/3 HP, 125/250 Vac, 50/60 Hz, 1E4, T85	Fine silver	Fine silver welded on copper base alloy	Yes	Yes

UL 1054

OPTION CODE	ELECTRICAL RATING	CONTACT MATERIAL: MOVABLE CONTACT	CONTACT MATERIAL: STATIONARY CONTACT	RoHS COMPLIANT*	RoHS COMPATIBLE*
F5	1A, 125 V AC, 30 VDC 100,000 cycles ("U" option)	Fine silver with 24K gold plate	Fine silver with 24K gold plate on copper base alloy	Yes	Yes
L9	5A, 1/3 HP @ 125 and 250 V AC 100,000 cycles ("U" option)	Fine silver	Fine silver welded on copper base alloy	Yes	Yes
M1	10.1A, 1/3 HP @ 125 and 250 V AC 100,000 cycles ("U" option)	Fine silver	Fine silver welded on copper base alloy	Yes	Yes

* Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.
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.

Third Angle Projection

Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

ACTUATOR

OPTION CODE	FIG.	DIM. A	DIM. B	DIM. C
P00	1	0.297 (7,6)	.330 ± .015 (8,38 ± 0,38)	—
A10	7	0.28 (7,1)	.570 ± .070 (14,48 ± 1,78)	.19 dia. (4,8Ø)
A25	2	0.61 (15,5)	.570 ± .175 (14,22 ± 4,45)	.19 dia. (4,8Ø)
T10	3	0.29 (7,4)	.340 ± .070 (8,64 ± 1,78)	—
T13	5	0.220 (5,3)	.455 ± .065 (11,56 ± 1,65)	—
T20	4	0.39 (9,9)	.340 ± .140 (8,64 ± 3,56)	—
T23	6	0.32 (8,1)	.455 ± .125 (11,56 ± 3,18)	—
T25	4	0.67 (17,0)	.340 ± .091 (8,64 ± 4,70)	—
A15	7	0.51 (13,0)	.560 ± .090 (14,22 ± 2,29)	.19 dia. (4,8Ø)
A20	2	0.38 (9,7)	.560 ± .135 (14,22 ± 2,29)	.19 dia. (4,8Ø)
T15	3	0.57 (14,51)	.340 ± .100 (8,64 ± 2,54)	—

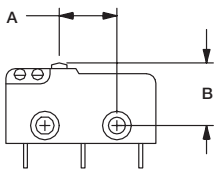


FIG. 1
Pin Plunger

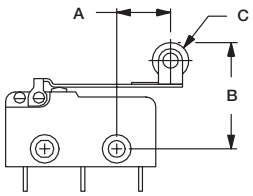


FIG. 2
Lever Roller

HIGH FORCE

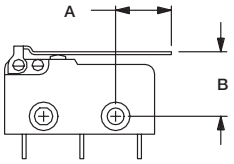


FIG. 3
Lever

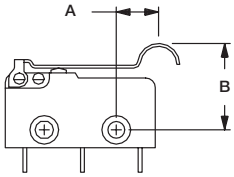


FIG. 5
Simulated Roller

LOW FORCE

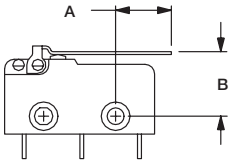


FIG. 4
Lever

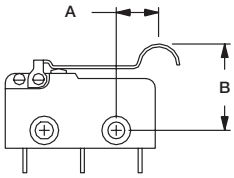


FIG. 6
Simulated Roller

BASIC FORCE

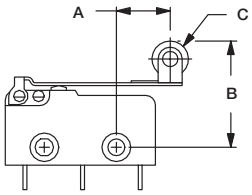


FIG. 7
Lever Roller

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)
T15	1.2 35	1.3 39	1.5 42	0.14 4	.21 6	.28 81	.047 (1,19)	.190 (4,83)	.040 (1,02)

NOTE: For basic switch operating forces, see page J-18.

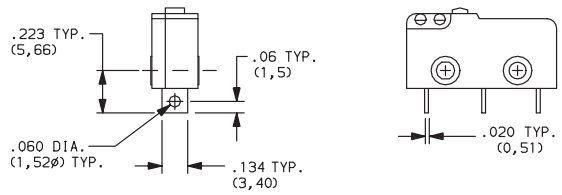
Third Angle Projection

Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

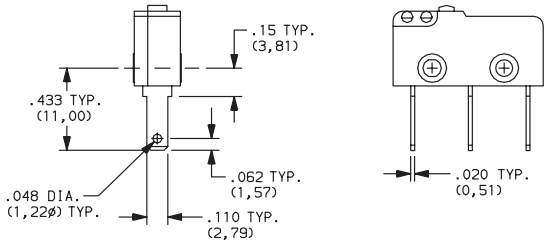
LC Series
Subminiature Precision Snap-acting Switches

TERMINATIONS

E SOLDER

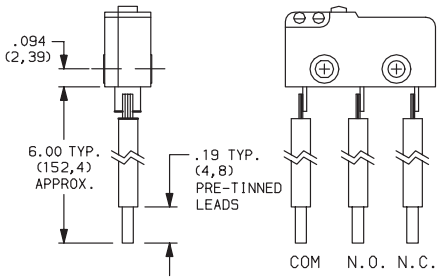


H .110" QUICK CONNECT



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

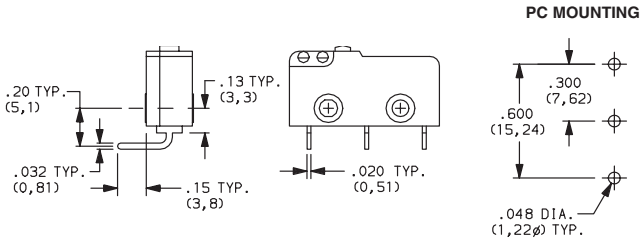
J WIRE LEAD



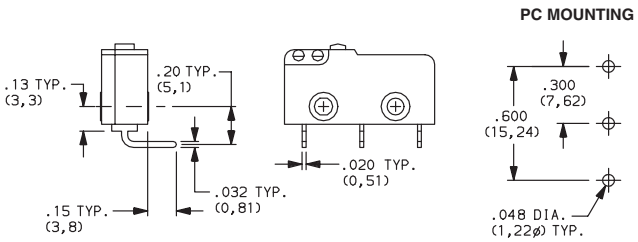
RATING	WIRE SIZE
1 AMP	22 AWG
5 AMPS	20 AWG
10.1 AMPS	18 AWG

TERMINAL	WIRE COLOR
COMMON	BLACK
NORMALLY OPEN	WHITE
NORMALLY CLOSED	RED

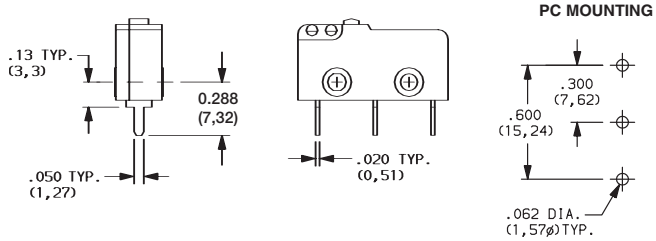
L LEFT FORMED PC THRU-HOLE



R RIGHT FORMED PC TRU-HOLE



S PC THRU-HOLE



CIRCUITRY

C 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)

ELECTRICAL LIFE

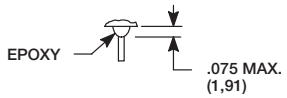
NONE 6,000 OPERATIONS

U EXTENDED 100,000 OPERATIONS

SEAL

NONE NO SEAL

E EPOXY SEAL



Third Angle Projection

Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

C&K Switches:

LCGGV6T13SC LCGGM1T10EWU LCGHF5T23RCU LCGDF5P00HW LCGDV6T13JCE LCGDV6P00EC LCGGX1T20EC LCGHM1P00SWE LCGHF5T23SCU LCGDX1P00HC LCGGF5T20ECU