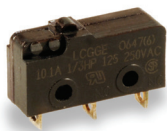


LC Series

Small Size 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

UL61058-1



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. For additional options not shown in catalog, consult Customer Service Center.

<div style="border: 1px solid black; padding: 2px; display: inline-block;">L C</div> <div style="border: 1px solid black; width: 20px; height: 15px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; display: inline-block;"></div>	
<p>Series _____</p> <p>LC SP, Mom.</p> <p>Operating Force _____</p> <p>GG 5 oz./142 grams</p> <p>GD 3.3 oz./94 grams</p> <p>GH 6 oz./170 grams</p> <p>Electrical Rating _____</p> <p>X1 UL 61058-1 (see chart)</p> <p>V6 UL 61058-1 (see chart)</p> <p>V7 UL 61058-1 (see chart)</p> <p>F5 UL 1054 (see chart)</p> <p>L9 UL 1054 (see chart)</p> <p>M1 UL 1054 (see chart)</p>	<p>Actuator _____</p> <p>P00 Pin plunger</p> <p>A10 .28" lever roller, high force</p> <p>A15 .51" lever roller, high force</p> <p>A20 .39" lever roller, low force</p> <p>A25 .61" lever roller, low force</p> <p>T10 .29" lever, high force</p> <p>T13 .22" simulated roller, high force</p> <p>T15 .57" lever, high force</p> <p>T20 .38" lever, low force</p> <p>T23 .32" simulated roller, low force</p> <p>T25 .67" lever, low force</p> <p>Terminations _____</p> <p>E Solder</p> <p>H .110" quick connect</p> <p>J Wire lead</p> <p>L Left formed PC thru-hole</p> <p>R Right formed PC thru-hole</p> <p>S PC Thru-hole</p> <p>Circuitry _____</p> <p>C SPDT</p> <p>W SPST N.C.</p> <p>Y SPST N.O.</p> <p>Electrical Life _____</p> <p>NONE 6,000 operations</p> <p>U* Extended 100,000 operations</p>

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

Seal _____

NONE (STD.) No seal

E Epoxy seal

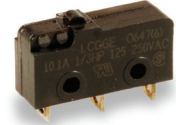
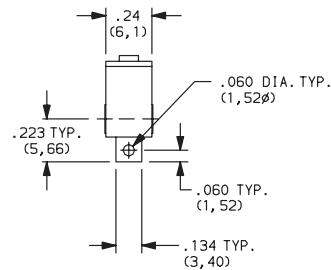
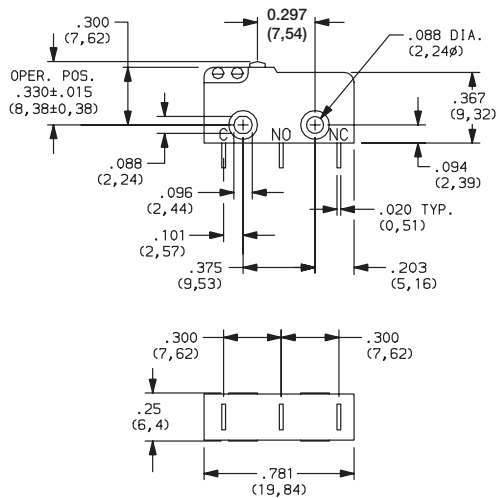


Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

LC Series Small Size Precision Snap-acting Switches

SERIES

LC SMALL SIZE 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		CONTACT MATERIAL		RoHS COMPLIANT*	RoHS COMPATIBLE*
OPTION CODE	ELECTRICAL RATING	MOVABLE CONTACT	STATIONARY CONTACT		
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		CONTACT MATERIAL		RoHS COMPLIANT*	RoHS COMPATIBLE*
OPTION CODE	ELECTRICAL RATING	MOVABLE CONTACT	STATIONARY CONTACT		
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.



Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change



LC Series

Small Size Precision Snap-acting Switches

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. (4,80)
A25	2	0.61 (15,5)	.570 ± .175 (14,22 ± 4,45)	.19 dia. (4,80)
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. (4,80)
A20	2	0.38 (9,7)	.560 ± .135 (14,22 ± 2,29)	.19 dia. (4,80)
T15	3	0.57 (14,51)	.340 ± .100 (8,64 ± 2,54)	—

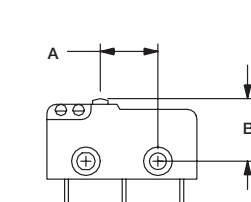


FIG. 1
Pin Plunger

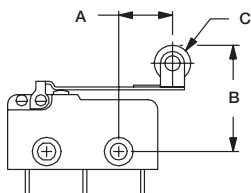


FIG. 2
Lever Roller

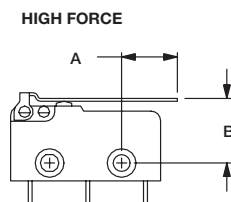


FIG. 3
Lever

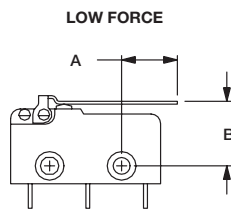


FIG. 4
Lever

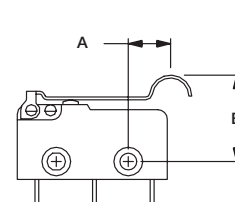


FIG. 5
Simulated Roller

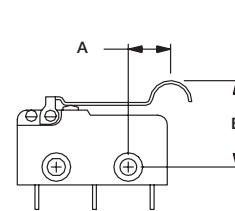


FIG. 6
Simulated Roller

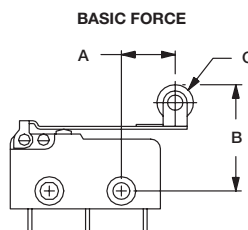


FIG. 7
Lever Roller

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-32.



Third Angle
Projection

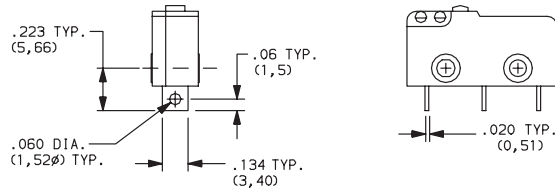
Dimensions are shown: Inch (mm)

Specifications and dimensions subject to change

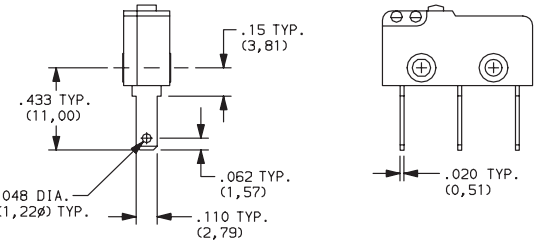
LC Series Small Size Precision Snap-acting Switches

TERMINATIONS

E SOLDER

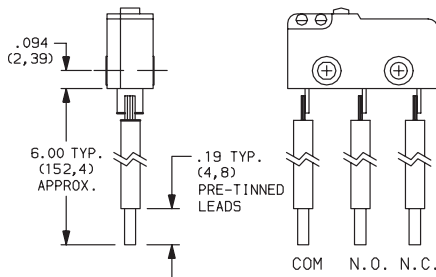


H .110" QUICK CONNECT



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

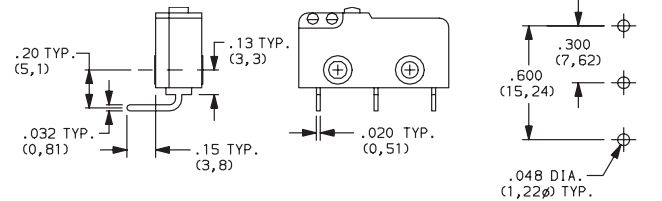
J WIRE LEAD



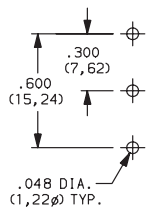
RATING	WIRE SIZE
1 AMP	22 AWG
5 AMPS	20 AWG
10.1 AMPS	18 AWG

TERMINAL	WIRE COLOR
COMMON	BLACK
NORMALLY OPEN	WHITE
NORMALLY CLOSED	RED

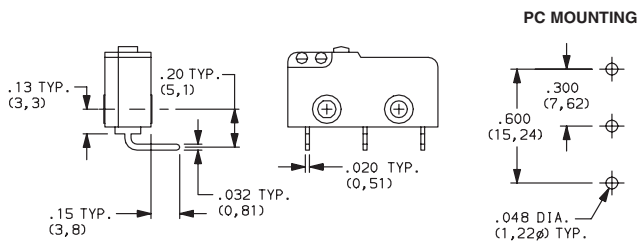
L LEFT FORMED PC THRU-HOLE



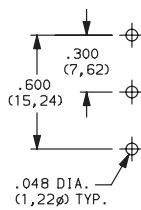
PC MOUNTING



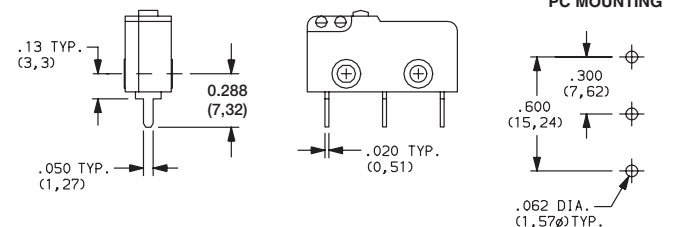
R RIGHT FORMED PC THRU-HOLE



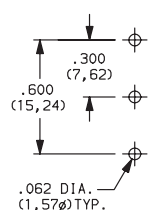
PC MOUNTING



S PC THRU-HOLE



PC MOUNTING



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

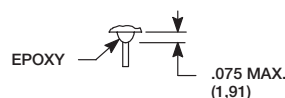
NONE 6,000 OPERATIONS

U EXTENDED 100,000 OPERATIONS

SEAL

NONE NO SEAL

E EPOXY SEAL



Third Angle Projection

Dimensions are shown: mm
Specifications and dimensions subject to change

C&K

Mouser Electronics

Authorized Distributor

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

C&K Switches:

[LCGGL9P00SC](#) [LCGGX1T10EC](#) [LCGGX1A10EC](#) [LCGHF5A10RCE](#) [LCGHF5A10RC](#) [LCGGX1T13EC](#)
[LCGHF5A10LC](#) [LCGGF5P00EW](#) [LCGDL9P00SC](#) [LCGDL9T10EC](#) [LCGGM1T10HY](#) [LCGGM1T10JY](#)
[LCGGX1P00EC](#) [LCGGX1T25EC](#) [LCGHF5T10SY](#) [LCGDL9T13EC](#) [LCGDF5A10LCU](#) [LCGGL9P00EC](#)
[LCGGL9T10LC](#) [LCGDL9T10SC](#) [LCGDL9A10EC](#) [LCGGF5T13HCU](#) [LCGGF5A10HYU](#) [LCGGV6P00ECU](#)
[LCGDL9P00EC](#) [LCGDL9A10SC](#) [LCGDL9P00HC](#) [LCGGV6T10SC](#) [LCGHF5A10ECE](#) [LCGHV6A10LC](#)
[LCGDF5P00HC](#) [LCGGX1A10EW](#) [LCGHL9A10HCU](#) [LCGGL9P00SCE](#) [LCGGX1T20EY](#) [LCGHL9T10SC](#)
[LCGGL9A10HC](#) [LCGGL9T13SCE](#) [LCGGF5T10LC](#) [LCGGL9T20HCE](#) [LCGGF5T10ECUE](#) [LCGDL9T23EC](#)
[LCGGF5T23HCUE](#) [LCGGV6P00LC](#) [LCGGM1T10SC](#) [LCGHF5T23SCUE](#) [LCGHX1A10RCE](#) [LCGHF5T20SCU](#)
[LCGHM1T10EC](#) [LCGDF5T10SW](#) [LCGGL9T23EC](#) [LCGHF5A10LCE](#) [LCGDL9P00SYE](#) [LCGHV6A10RC](#)
[LCGHF5A10HC](#) [LCGHL9P00EC](#) [LCGGV6P00ECUE](#) [LCGGF5T10EC](#) [LCGGL9P00SY](#) [LCGGV6A10RC](#)
[LCGGL9A10LCE](#) [LCGGF5T13SYU](#) [LCGGL9T23HCE](#) [LCGHL9P00SYU](#) [LCGGF5T10RC](#) [LCGHF5P00EC](#)
[LCGGM1T10EC](#) [LCGDF5T13RWU](#) [LCGHF5T23ECU](#) [LCGGF5T13RC](#) [LCGHM1T23HC](#) [LCGGL9T23SC](#)
[LCGDV6P00SCE](#) [LCGHF5A10RWE](#) [LCGGL9T10HC](#) [LCGGF5T23SC](#) [LCGDL9T10HC](#) [LCGHF5T10JWU](#)
[LCGGF5A10ECU](#) [LCGHF5A10RYE](#) [LCGDF5T10EC](#) [LCGHV6P00RC](#) [LCGHV6T10HY](#) [LCGHX1T23JY](#)
[LCGHM1P00EC](#) [LCGGV6P00SCUE](#) [LCGGL9P00SYUE](#) [LCGHF5T23HCUE](#) [LCGDX1P00EC](#) [LCGGF5A25ECU](#)
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[LCGDF5T13SC](#) [LCGGM1A10HC](#) [LCGGV6A10LCE](#) [LCGGM1T10HC](#)