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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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

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 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

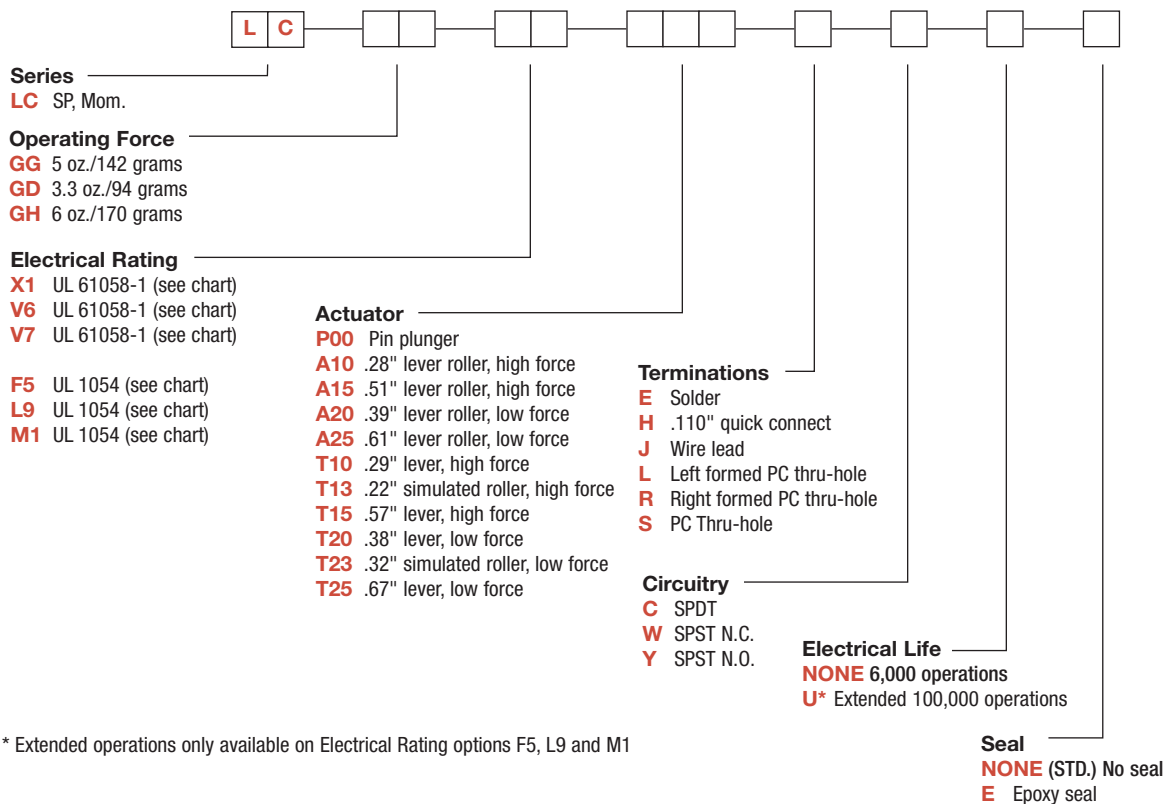
SWITCH HOUSING: Thermoplastic polyester or high temperature thermoplastic (PTS) (UL 94V-0).  
 ACTUATOR BUTTON: Thermoplastic polyester (UL 94V-0).  
 SPRING: Copper alloy.  
 PIVOT: Copper alloy.  
 MOVABLE CONTACTS: Fine silver for ratings greater than 1 AMP @ 125 V AC. Fine silver with 24K gold plate 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-33 through J-35. For additional options not shown in catalog, consult Customer Service Center.



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

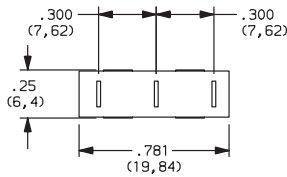
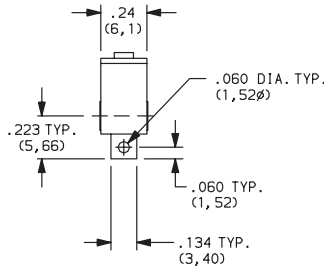
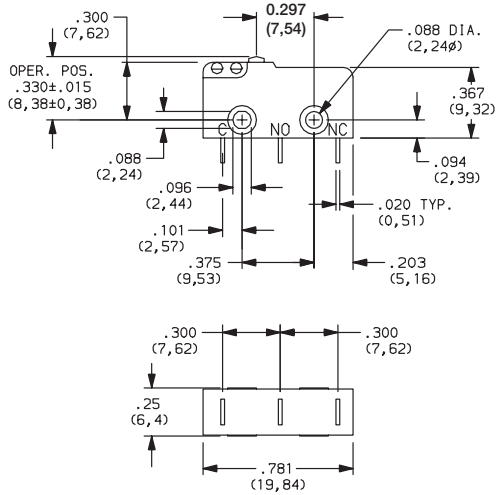


Dimensions are shown: Inch (mm)  
 Specifications and dimensions subject to change

# 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)
<b>GG</b>	5 142
<b>GD</b>	3.3 94
<b>GH</b>	6 170

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

ELECTRICAL RATING ■■■■■■■■■■

OPTION CODE	ELECTRICAL RATING	CONTACT MATERIAL		RoHS COMPLIANT*	RoHS COMPATIBLE*
		MOVABLE CONTACT	STATIONARY CONTACT		
<b>X1</b>	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
<b>V6</b>	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
<b>V7</b>	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

OPTION CODE	ELECTRICAL RATING	CONTACT MATERIAL		RoHS COMPLIANT*	RoHS COMPATIBLE*
		MOVABLE CONTACT	STATIONARY CONTACT		
<b>F5</b>	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
<b>L9</b>	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
<b>M1</b>	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

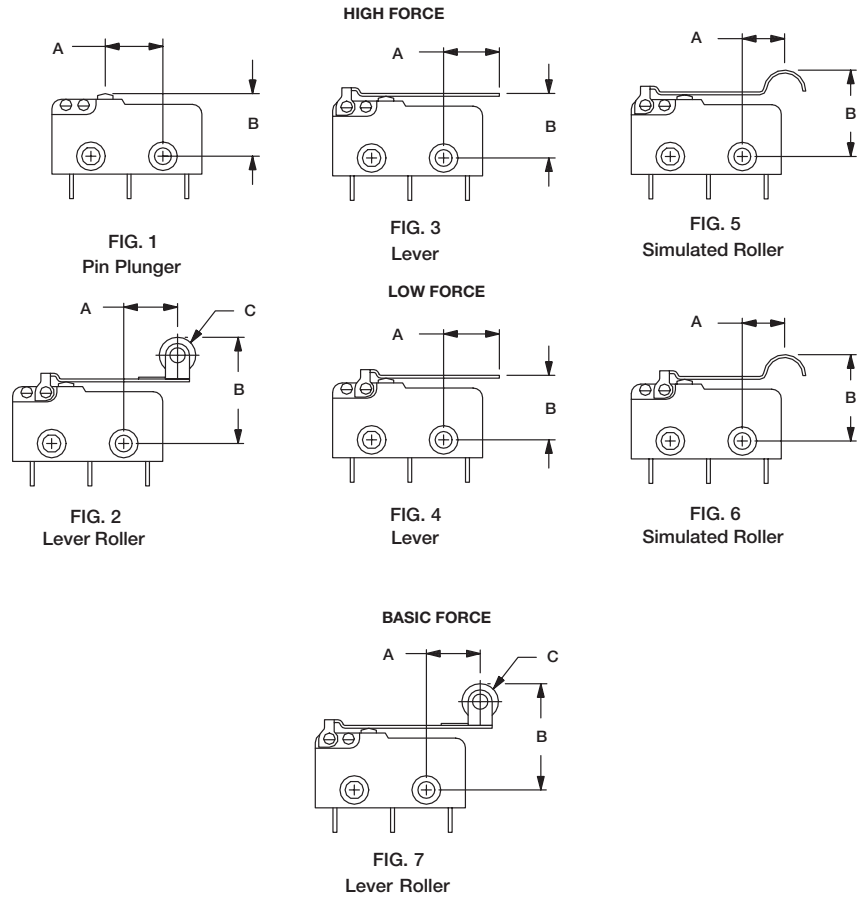


Snap-acting

# LC Series Subminiature 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)	—



## 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)

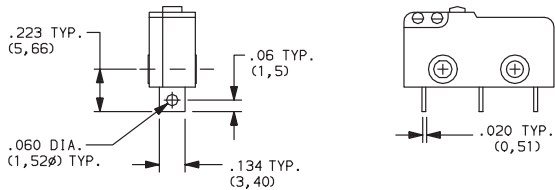
Specifications and dimensions subject to change



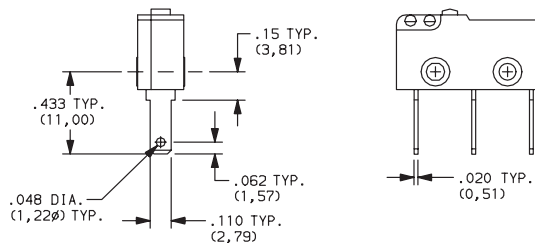
# LC Series Subminiature Precision Snap-acting Switches

## TERMINATIONS

**E** SOLDER

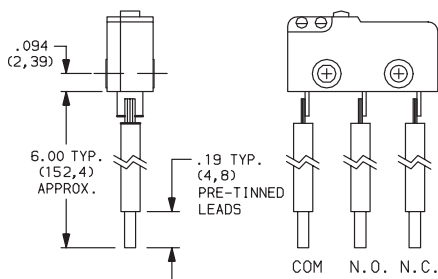


**H** .110" QUICK CONNECT



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

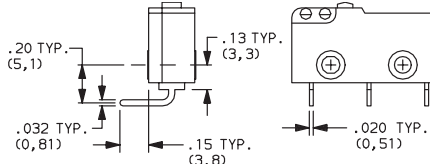
**J** WIRE LEAD



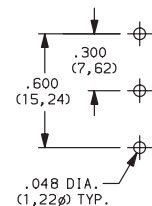
RATING	WIRE SIZE
1 AMP	22 AWG
5 AMPS	20 AWG
10.1 AMPS	18 AWG

TERMINAL	WIRE COLOR
COMMON	BLACK
NORMALLY OPEN	WHITE
NORMALLY CLOSED	RED

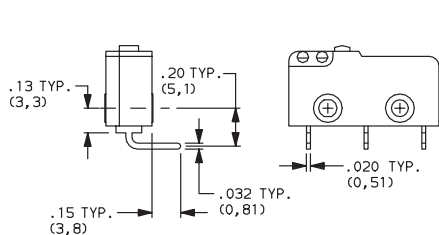
**L** LEFT FORMED PC THRU-HOLE



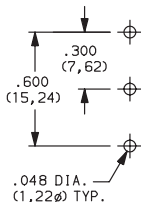
**PC MOUNTING**



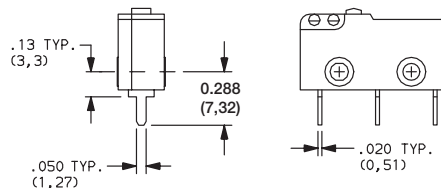
**R** RIGHT FORMED PC THRU-HOLE



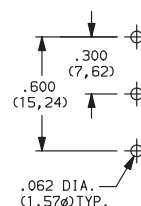
**PC MOUNTING**



**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

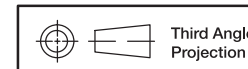
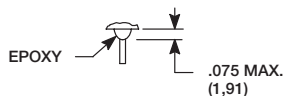
**NONE** 6,000 OPERATIONS

**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**