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***

Models Available

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.

J 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-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
F5 1 A, 125, V AC, 30 V DC
L9 5 A, 1/3 HP, 125, 250 V AC
M1 10.1 A, 1/3 HP, 125, 250 V AC
V6 5 A, 1/3 HP, 125, 250 V AC
X1 1 A, 125 V AC, 30 V DC

Actuator
P00 Pin plunger
A10 .28" lever roller, high force
A25 .61" lever roller, low force
T10 .29" lever, high force
T13 .22" simulated roller, 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

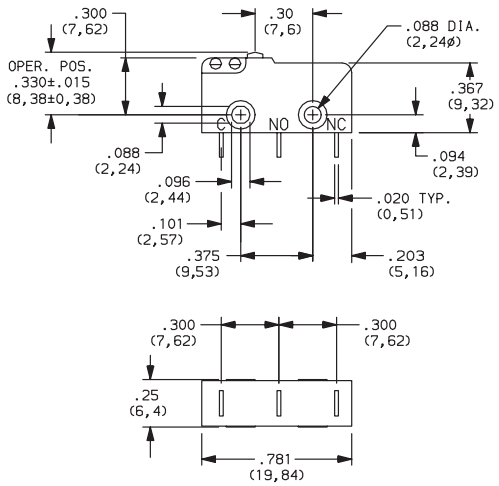
Seal
NONE (STD.) No seal
E Epoxy seal

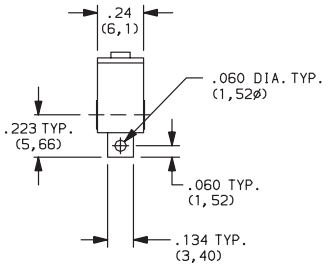
Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

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

OPTION CODE				CONTACT MATERIAL		
DOMESTIC	INTERNATIONAL	RoHS COMPLIANT *	RoHS COMPATIBLE *	MOVABLE CONTACT	STATIONARY CONTACT	ELECTRICAL RATING
F5	X1	Yes	Yes	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	Yes	Yes	Fine silver.	Fine silver welded on copper base alloy.	5 AMPS, 1/3 HP @ 125 & 250 V AC.
M1		Yes	Yes			10.1 AMPS, 1/3 HP @ 125 & 250 V AC.

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

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.

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	.30 (7,6)	.330 ± .015 (8,38 ± 0,38)	—
A10	7	.28 (7,1)	.560 ± .070 (14,22 ± 1,78)	.19 dia. (4,8Ø)
A25	2	.61 (15,5)	.560 ± .175 (14,22 ± 4,45)	.19 dia. (4,8Ø)
T10	3	.29 (7,4)	.340 ± .070 (8,64 ± 1,78)	—
T13	5	.21 (5,3)	.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)	—

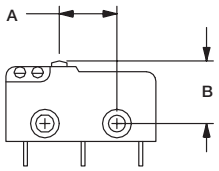


FIG. 1
Pin Plunger

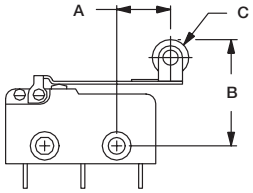


FIG. 2
Lever Roller

HIGH FORCE

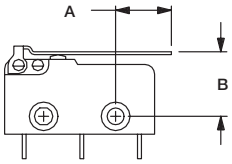


FIG. 3
Lever

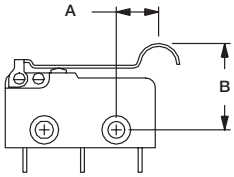


FIG. 5
Simulated Roller

LOW FORCE

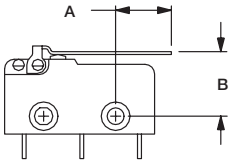


FIG. 4
Lever

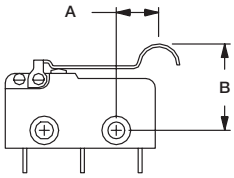


FIG. 6
Simulated Roller

BASIC FORCE

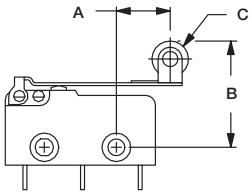


FIG. 7
Lever Roller

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)

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

Third Angle Projection

Dimensions are shown: Inches (mm)
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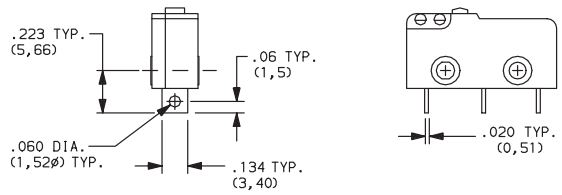
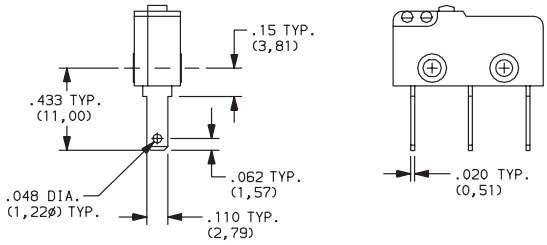
Subminiature Precision Snap-acting Switches

TERMINATIONS

E SOLDER

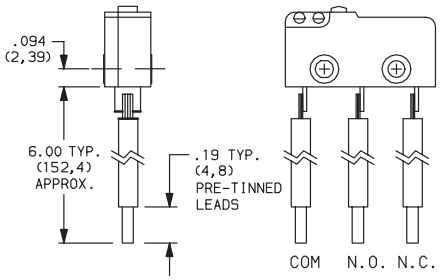


H .110" QUICK CONNECT



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

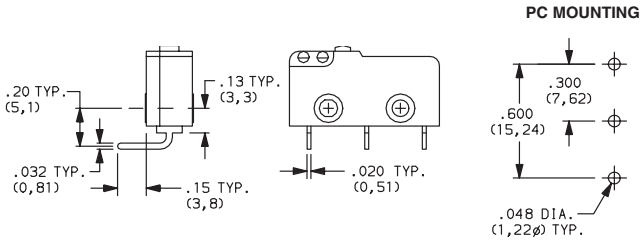
J WIRE LEAD



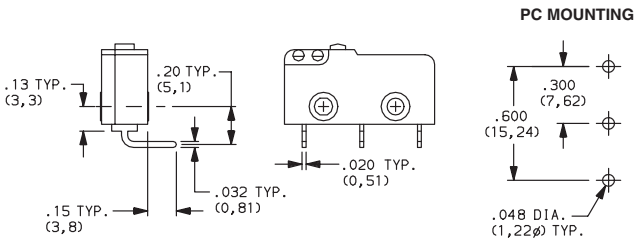
RATING	WIRE SIZE
1 AMP	22 AWG
5 AMPS	20 AWG
10.1 AMPS	18 AWG

TERMINAL	WIRE COLOR
COMMON	BLACK
NORMALLY OPEN	WHITE
NORMALLY CLOSED	RED

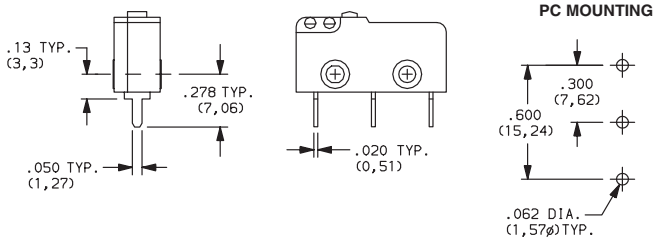
L LEFT FORMED PC THRU-HOLE



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

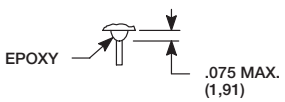
NONE 6,000 OPERATIONS

U EXTENDED 100,000 OPERATIONS

SEAL

NONE NO SEAL

E EPOXY SEAL



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