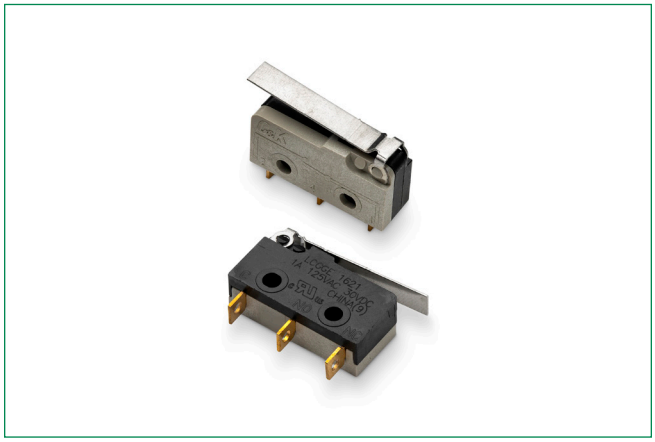
# LC Series
## Small Size Precision Snap-acting Switches



## Description

Those designing motorized equipment, sump pumps and thermostatic controls need a switch that's compact, while still offering a long lifecycle and a high electrical capacity. The LC series small size precision snap-acting switch gives designers these features, as well as a quick connect solution, along with their choice of wire lead or PC mounting.

## Features & Benefits

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

## Applications

- Motorized equipment
- Sump pump
- Thermostatic controls

### Specifications

| | |
|---|---|
| **Contact Rating** | From low level[1] 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** | -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. |

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

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

### Agency Approvals

| Agency | Agency File Number |
|---|---|
| c UL us | E42363 |

### Materials

| | |
|---|---|
| **Switch Housing** | Thermoplastic polyester or high temperature thermoplastic (PTS) (UL 94 V-0). |
| **Actuator Button** | Thermoplastic polyester (UL 94 V-0). |
| **Spring** | Copper alloy. |
| **Pivot** | |
| **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 |

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### Ordering Number

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.

**LC - xx - xx - xxx - x - x - x - x**

**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:** 0.28" lever roller, high force
**A15:** 0.51" lever roller, high force
**A20:** 0.39" lever roller, low force
**A25:** 0.61" lever roller, low force
**T10:** 0.29" lever, high force
**T13:** 0.22" simulated lever, high force
**T15:** 0.57" lever, high force
**T20:** 0.38" lever, low force
**T23:** 0.32" simulated roller, low force
**T25:** 0.67" lever, low force

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

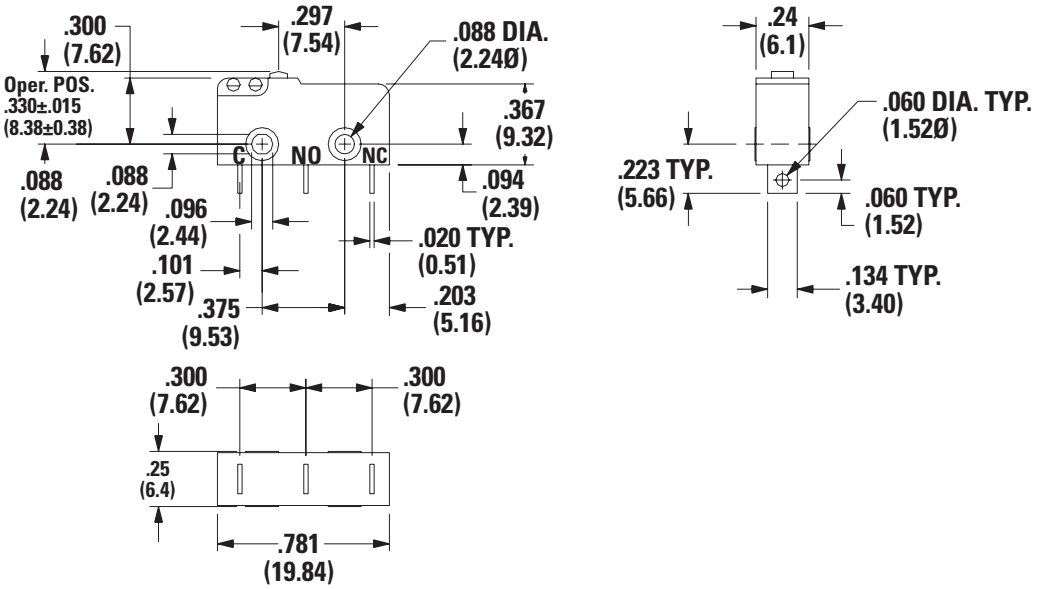
**Terminations**
**E:** Solder
**H:** 0.110" quick connect
**J:** Wire lead
**L:** Left formed PC thru-hole
**R:** Right formed PC thru-hole
**S:** PC Thru-hole

**Electrical Life**
**None:** 6,000 operations
**U:** Extended 100,000 operations
(Extended operations only available on Electrical Rating options F5, L9, and M1)

**Seal**
**None:** (STD.) No seal
**E:** Epoxy seal

### Series Dimensions inches (mm)

### 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 |

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

## Electrical Rating

### UL 61058-1

| Option Code | Electrical Rating | Contact Material | | RoHS Compliant[1] | RoHS Compatible[1] |
|---|---|---|---|---|---|
| | | 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 | |
| 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 wielded on copper base alloy | 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 | | | | |

### UL 1053

| Option Code | Electrical Rating | Contact Material | | RoHS Compliant[1] | RoHS Compatible[1] |
|---|---|---|---|---|---|
| | | 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 | |
| L9 | 5A, 1/3 HP @ 125 and 250 V AC 100,000 cycles ("U" option) | Fine silver | Fine silver wielded on copper base alloy | Yes | |
| M1 | 10.1A, 1/3 HP @ 125 and 250 V AC 100,000 cycles ("U" option) | | | | |

**Notes:**
**1.** 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.

## Actuator

| Option Code | Figure | Dim. A | Dim. B | Dim. C |
|---|---|---|---|---|
| P00 | 1 | 0.297 (7.6) | 0.330 ± 0.015 (8.38 ± 0.38) | - |
| A10 | 7 | 0.28 (7.1) | 0.570 ± 0.070 (14.48 ± 1.78) | 0.19 dia. (4.8Ø) |
| A25 | 2 | 0.61 (15.5) | 0.570 ± 0.175 (14.22 ± 4.45) | 0.19 dia. (4.8Ø) |
| T10 | 3 | 0.29 (7.4) | 0.340 ± 0.070 (8.64 ± 1.78) | - |
| T13 | 5 | 0.220 (5.3) | 0.455 ± 0.065 (11.56 ± 1.65) | - |
| T20 | 4 | 0.39 (9.9) | 0.340 ± 0.140 (8.64 ± 3.56) | - |
| T23 | 5 | 0.32 (8.1) | 0.455 ± 0.125 (11.56 ± 3.18) | - |
| T25 | 4 | 0.67 (17.0) | 0.340 ± 0.091 (8.64 ± 4.70) | - |
| A15 | 7 | 0.51 (13.0) | 0.560 ± 0.090 (14.22 ± 2.29) | 0.19 dia. (4.8Ø) |
| A20 | 2 | 0.38 (9.7) | 0.560 ± 0.135 (14.22 ± 2.29) | 0.19 dia. (4.8Ø) |
| T15 | 3 | 0.57 (14.51) | 0.340 ± 0.100 (8.64 ± 2.54) | - |

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### High Force

**Figure 1**
**Pin Plunger**

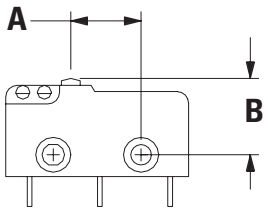



**Figure 3 Lever**

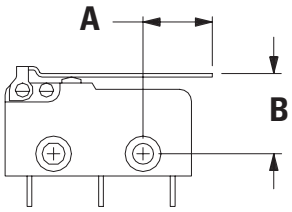
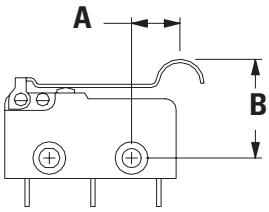



**Figure 5**
**Simulated Roller**




### Low Force

**Figure 2**
**Lever Roller**

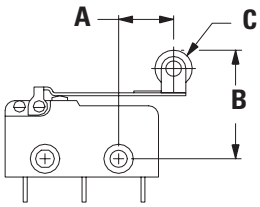



**Figure 4**
**Lever**

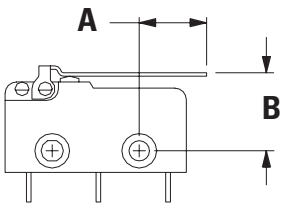
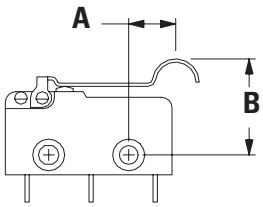
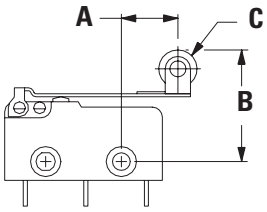



**Figure 6**
**Simulated Roller**




### Basic Force

**Figure 7**
**Lever Roller**




## Switch Characteristics

| Option Code | Max. Operating Force (oz./grams) | | | Min. Release Force (oz./grams) | | | Max. Differential Travel | Max. Pretravel | Min. Overtravel |
|---|---|---|---|---|---|---|---|---|---|
| | GG | GD | GH | GG | GD | GH | All Forces | | |
| A10 | 1.69, 48 | 1, 28 | 2.0, 57 | 0.21, 6 | 0.11, 3 | 0.42, 12 | 0.034 (0.86) | 0.140 (3.56) | 0.029 (0.74) |
| A15 | 1.3, 37 | 0.68, 19 | 1.6, 44 | 0 .16, 4.5 | 0.07, 2 | 0.32, 9 | 0.044 (1.12) | 0.180 (4.57) | 0.037 (0.94) |
| A20 | 0.9, 26 | 0.52, 15 | 1.1, 31 | 0.11, 3 | 0.05, 15 | 0.21, 6 | 0.067 (1.70) | 0.272 (6.91) | 0.053 (1.53) |
| A25 | 0.70, 20 | 0.42, 12 | 0.85, 24 | 0.07, 2 | 0.04, 1 | 0.16, 4.5 | 0.086 (2.18) | 0.351 (8.92) | 0.068 (1.73) |
| P00 | 5, 142 | 3.3, 95 | 6, 170 | 1, 28 | 0.05, 14 | 2.0, 57 | 0.004 (0.10) | 0.030 (0.76) | 0.010 (0.25) |
| T10 | 1.7, 48 | 1, 28 | 2.1, 60 | 0.21, 6 | 0.10, 3 | 0.39, 11 | 0.035 (0.90) | 0.140 (3.56) | 0.029 (0.74) |
| T13 | 1.8, 52 | 1.2, 34 | 2.2, 62 | 0.21, 6 | 0.03, 1 | 0.42, 12 | 0.032 (0.81) | 0.130 (3.30) | 0.026 (0.66) |
| T20 | 0.9, 26 | 0.52, 15 | 1.1, 30 | 0.10, 3 | 0.03, 1 | 0.21, 6 | 0.067 (1.70) | 0.276 (7.01) | 0.053 (1.35) |
| T23 | 1.0, 28 | 0.52, 15 | 1.2, 34 | 0.10, 3 | 0.03, 1 | 0.21, 6 | 0.062 (1.57) | 0.252 (6.40) | 0.049 (1.24) |
| T25 | 0.7, 19 | 0.05 14 | 0.8, 24 | 0.07, 2 | 0.03, 1 | 0.14, 4 | 0.090 (2.29) | 0.372 (9.45) | 0.072 (1.83) |
| T15 | 1.2, 35 | 1.3, 39 | 1.5, 42 | 0.14, 4 | 0.21, 6 | 0.28, 81 | 0.047 (1.19) | 0.190 (4.83) | 0.040 (1.02) |

**Notes:**
For Basic Switch operating forces, see page J-32.



Revised: CM.06/16/25

# LC Series
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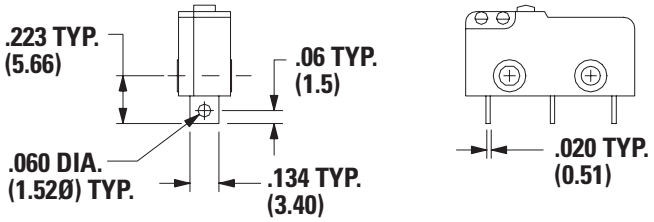
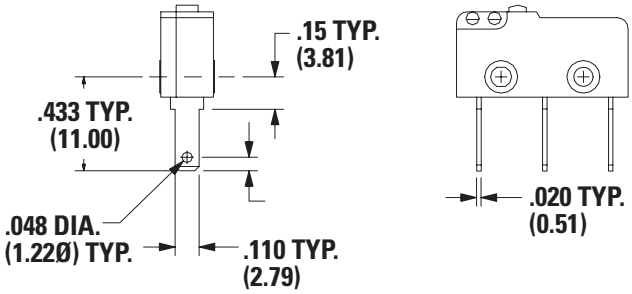
### Terminations Dimensions inches (mm)

#### E Solder

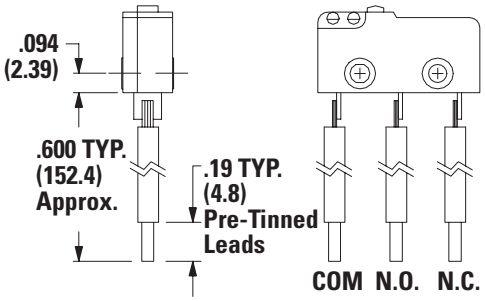



#### H 0.110" Quick Connect

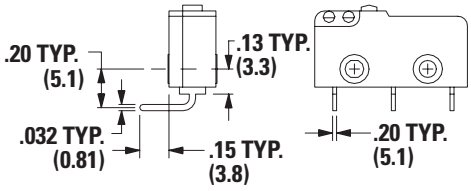



**Note:** Use Amp Quick Connect Part No. 640932-1.

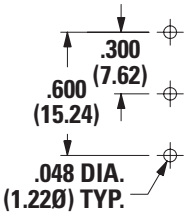
#### J Wire Lead




#### L Left Formed PC Thru-hole



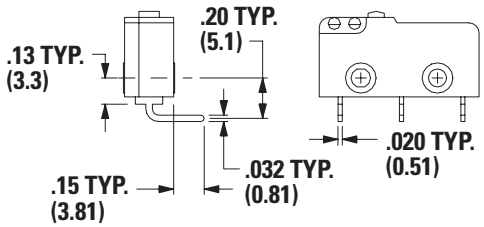

#### PC Mounting



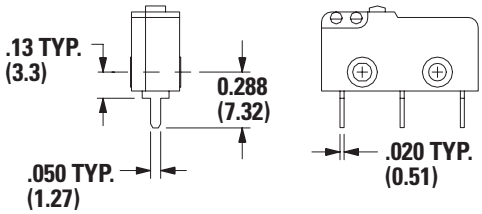

| Rating | Wire Size | Terminal | Wire Color |
|---|---|---|---|
| 1 amp | 22 AWG | Common | 22 AWG |
| 5 amps | 20 AWG | Normally Open | 20 AWG |
| 10.1 amps | 18 AWG | Normally Closed | 18 AWG |

# LC Series
## Small Size Precision Snap-acting Switches

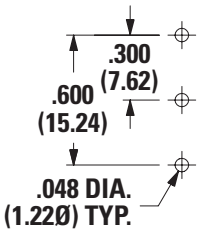
### R Right Formed PC Thru-hole



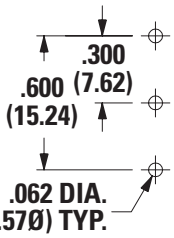

### S PC Thru-hole




### PC Mounting




### 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

**Epoxy Seal**