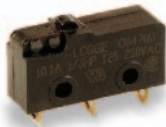


# LC Series Subminiature Precision Snap-acting Switches



## 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.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="border: 1px solid black; padding: 2px; display: inline-block;">L C</div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                |
| <p><b>Series</b></p> <p><b>LC</b> SP, Mom.</p> <p><b>Operating Force</b></p> <p><b>GG</b> 5 oz./142 grams</p> <p><b>GD</b> 3.3 oz./94 grams</p> <p><b>GH</b> 6 oz./170 grams</p> <p><b>Electrical Rating</b></p> <p><b>X1</b> UL 61058-1 (see chart)</p> <p><b>V6</b> UL 61058-1 (see chart)</p> <p><b>V7</b> UL 61058-1 (see chart)</p> <p><b>F5</b> UL 1054 (see chart)</p> <p><b>L9</b> UL 1054 (see chart)</p> <p><b>M1</b> UL 1054 (see chart)</p>                                                                                                                                                                                                                                                                                                                       | <p><b>Actuator</b></p> <p><b>P00</b> Pin plunger</p> <p><b>A10</b> .28" lever roller, high force</p> <p><b>A15</b> .51" lever roller, high force</p> <p><b>A20</b> .39" lever roller, low force</p> <p><b>A25</b> .61" lever roller, low force</p> <p><b>T10</b> .29" lever, high force</p> <p><b>T13</b> .22" simulated roller, high force</p> <p><b>T15</b> .57" lever, high force</p> <p><b>T20</b> .38" lever, low force</p> <p><b>T23</b> .32" simulated roller, low force</p> <p><b>T25</b> .67" lever, low force</p> | <p><b>Terminations</b></p> <p><b>E</b> Solder</p> <p><b>H</b> .110" quick connect</p> <p><b>J</b> Wire lead</p> <p><b>L</b> Left formed PC thru-hole</p> <p><b>R</b> Right formed PC thru-hole</p> <p><b>S</b> PC Thru-hole</p> <p><b>Circuitry</b></p> <p><b>C</b> SPDT</p> <p><b>W</b> SPST N.C.</p> <p><b>Y</b> SPST N.O.</p> | <p><b>Electrical Life</b></p> <p><b>NONE</b> 6,000 operations</p> <p><b>U*</b> Extended 100,000 operations</p> <p><b>Seal</b></p> <p><b>NONE</b> (STD.) No seal</p> <p><b>E</b> Epoxy seal</p> |

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

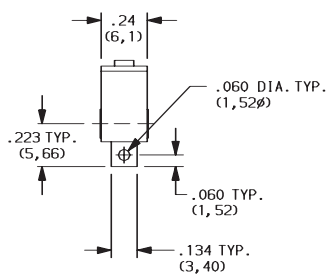
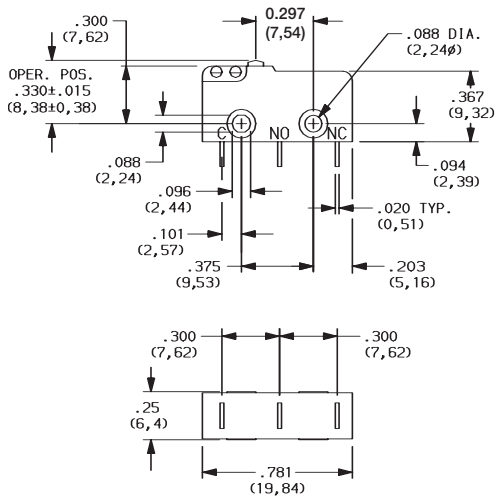


Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

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<br>142                                  |
| GD          | 3.3<br>94                                 |
| GH          | 6<br>170                                  |

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

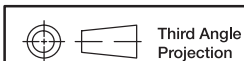
ELECTRICAL RATING

| 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<br>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<br>5A GP, 250 Vac, 50/60 Hz, 1E4, T85<br>5RA, 30 Vdc, 1E4, T85<br>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<br>10A GP, 250 Vac, 50/60 Hz, 1E4, T85<br>10RA, 30 Vdc, 1E4, T85<br>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<br>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<br>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<br>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.



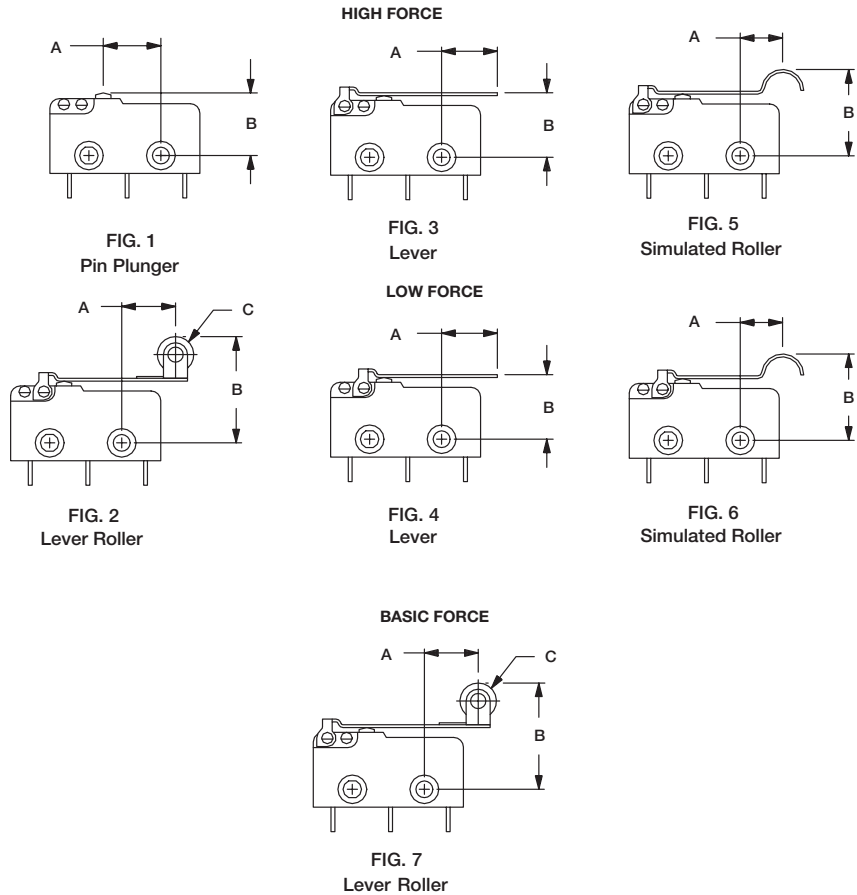
Dimensions are shown: Inch (mm) Specifications and dimensions subject to change



# LC Series Subminiature Precision Snap-acting Switches

ACTUATOR 

| OPTION CODE | FIG. | DIM. A          | DIM. B                        | DIM. C             |
|-------------|------|-----------------|-------------------------------|--------------------|
| P00         | 1    | 0.297<br>(7,6)  | .330 ± .015<br>(8,38 ± 0,38)  | —                  |
| A10         | 7    | 0.28<br>(7,1)   | .570 ± .070<br>(14,48 ± 1,78) | .19 dia.<br>(4,80) |
| A25         | 2    | 0.61<br>(15,5)  | .570 ± .175<br>(14,22 ± 4,45) | .19 dia.<br>(4,80) |
| T10         | 3    | 0.29<br>(7,4)   | .340 ± .070<br>(8,64 ± 1,78)  | —                  |
| T13         | 5    | 0.220<br>(5,3)  | .455 ± .065<br>(11,56 ± 1,65) | —                  |
| T20         | 4    | 0.39<br>(9,9)   | .340 ± .140<br>(8,64 ± 3,56)  | —                  |
| T23         | 6    | 0.32<br>(8,1)   | .455 ± .125<br>(11,56 ± 3,18) | —                  |
| T25         | 4    | 0.67<br>(17,0)  | .340 ± .091<br>(8,64 ± 4,70)  | —                  |
| A15         | 7    | 0.51<br>(13,0)  | .560 ± .090<br>(14,22 ± 2,29) | .19 dia.<br>(4,80) |
| A20         | 2    | 0.38<br>(9,7)   | .560 ± .135<br>(14,22 ± 2,29) | .19 dia.<br>(4,80) |
| T15         | 3    | 0.57<br>(14,51) | .340 ± .100<br>(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<br>48                          | 1<br>28   | 2.0<br>57 | .21<br>6                          | .11<br>3  | .42<br>12  | .034<br>(0,86)              | .140<br>(3,56)    | .029<br>(0,74)     |
| A15         | 1.3<br>37                           | .68<br>19 | 1.6<br>44 | .16<br>4.5                        | .07<br>2  | .32<br>9   | .044<br>(1,12)              | .180<br>(4,57)    | .037<br>(0,94)     |
| A20         | 0.9<br>26                           | .52<br>15 | 1.1<br>31 | .11<br>3                          | .05<br>15 | .21<br>6   | .067<br>(1,70)              | .272<br>(6,91)    | .053<br>(1,53)     |
| A25         | .70<br>20                           | .42<br>12 | .85<br>24 | .07<br>2                          | .04<br>1  | .16<br>4.5 | .086<br>(2,18)              | .351<br>(8,92)    | .068<br>(1,73)     |
| P00         | 5<br>142                            | 3.3<br>95 | 6<br>170  | 1<br>28                           | .05<br>14 | 2.0<br>57  | .004<br>(0,10)              | .030<br>(0,76)    | .010<br>(0,25)     |
| T10         | 1.7<br>48                           | 1<br>28   | 2.1<br>60 | .21<br>6                          | .10<br>3  | .39<br>11  | .035<br>(0,90)              | .140<br>(3,56)    | .029<br>(0,74)     |
| T13         | 1.8<br>52                           | 1.2<br>34 | 2.2<br>62 | .21<br>6                          | .03<br>1  | .42<br>12  | .032<br>(0,81)              | .130<br>(3,30)    | .026<br>(0,66)     |
| T20         | 0.9<br>26                           | .52<br>15 | 1.1<br>30 | .10<br>3                          | .03<br>1  | .21<br>6   | .067<br>(1,70)              | .276<br>(7,01)    | .053<br>(1,35)     |
| T23         | 1.0<br>28                           | .52<br>15 | 1.2<br>34 | .10<br>3                          | .03<br>1  | .21<br>6   | .062<br>(1,57)              | .252<br>(6,40)    | .049<br>(1,24)     |
| T25         | 0.7<br>19                           | .05<br>14 | 0.8<br>24 | .07<br>2                          | .03<br>1  | .14<br>4   | .090<br>(2,29)              | .372<br>(9,45)    | .072<br>(1,83)     |
| T15         | 1.2<br>35                           | 1.3<br>39 | 1.5<br>42 | 0.14<br>4                         | .21<br>6  | .28<br>81  | .047<br>(1,19)              | .190<br>(4,83)    | .040<br>(1,02)     |

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



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

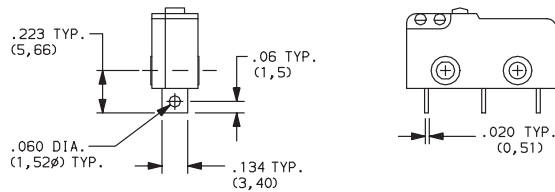


# LC Series

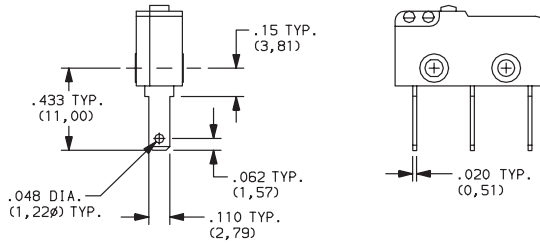
## Subminiature Precision Snap-acting Switches

### TERMINATIONS

#### E SOLDER



#### H .110" QUICK CONNECT

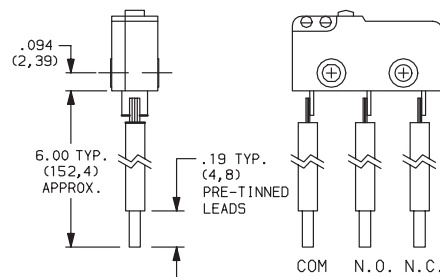


NOTE: Use Amp Quick Connect Part No. 640932-1.

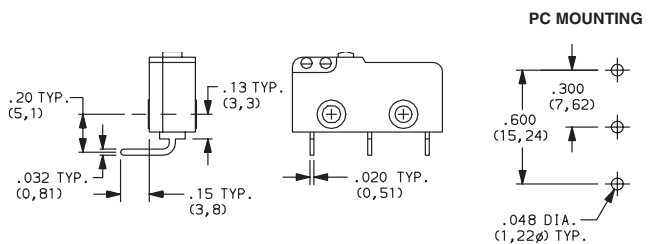
#### J WIRE LEAD

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

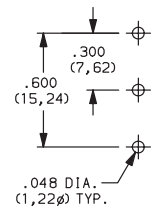
| TERMINAL        | WIRE COLOR |
|-----------------|------------|
| COMMON          | BLACK      |
| NORMALLY OPEN   | WHITE      |
| NORMALLY CLOSED | RED        |



#### L LEFT FORMED PC THRU-HOLE

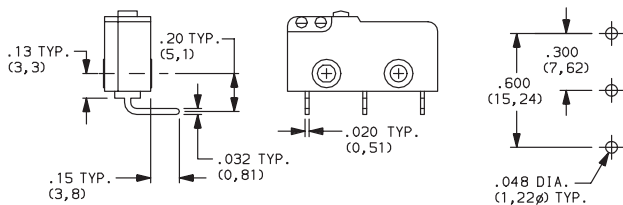


#### PC MOUNTING

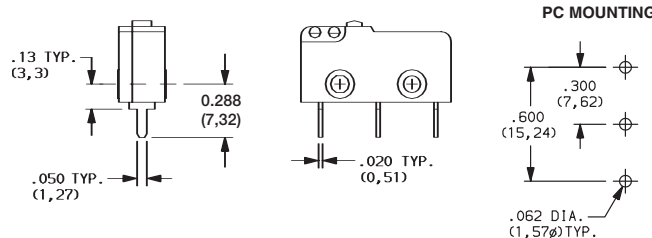


#### R RIGHT FORMED PC THRU-HOLE

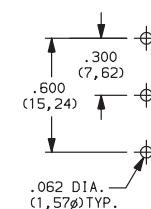
#### PC MOUNTING



#### 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

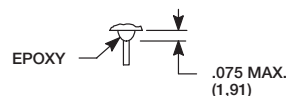
#### NONE 6,000 OPERATIONS

#### U EXTENDED 100,000 OPERATIONS

### SEAL

#### NONE NO SEAL

#### E EPOXY SEAL



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



## Данный компонент на территории Российской Федерации

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Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

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