

# Distinctive Characteristics

Environmentally friendly components and packaging materials meet RoHS Directive restricting use of hazardous materials. Suited for lead-free soldering because of heat resistant resin materials.

Smooth, slightly concave surface of cap designed to fit fingertip. Unique design and construction of cap prevents its removal and limits tampering.

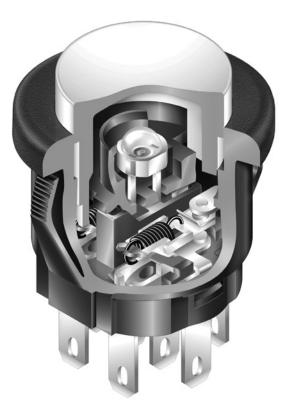
Bright LED illumination in choice of red, green, or amber through translucent white cap.

Short body of .551" (14.0mm) conserves behind-panel space.

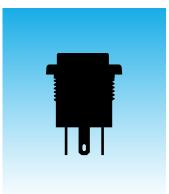
Combination solder lug and .110" quick connect terminals.

Crisp actuation and clear circuit status provided by snap-action contact mechanism. Arc barrier between movable contacts protects against crossover.

Nonilluminated models available and shown in the Pushbutton section.



Actual Size





# General Specifications

Electrical Capacity (Resistive Load) Power Level (silver): 3A @ 125V AC or 3A @ 250V AC or 3A @ 30V DC

# **Other Ratinas**

| 50 milliohms maximum   |
|--|
| 200 megohms minimum @ 500V DC                                    |
| 1,000V AC minimum between contacts for 1 minute minimum          |
| 1,500V AC minimum between contacts and case for 1 minute minimum |
| 500,000 operations minimum                                       |
| 50,000 operations minimum  |
| 1.5N for Single Pole; 3.0N for Double Pole                       |
| Nonshorting (break-before-make)                                  |
| Total Travel .118″ (3.0mm)                                       |
|  |

# **Materials & Finishes**

| Actuator:            | Polycarbonate  |
|----------------------|--|
| Housing:             | Bushing mount: Glass fiber reinforced polyamide (UL94V-0);   |
|                      | Snap in mount: Polyphenylene ether (UL94V-0)                 |
| Base:                | Diallyl phthalate (UL94V-0)                                  |
| Movable Contact:     | Phosphor bronze & silver with silver plating                 |
| Stationary Contacts: | Common terminal: Phosphor bronze with silver plating;        |
|                      | Contact terminals: Phosphor bronze with tin & copper plating |
| Lamp Terminals:      | Phospher bronze with tin and copper plating                  |

# **Environmental Data**

| Operating Temp Range: | –10°C through +50°C (+14°F through +122°F)   |
|-----------------------|--|
| Humidity:             | 90 ~ 95% humidity for 240 hours @ 40°C (104°F)   |
| Vibration:            | 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning                      |
|                       | in 1 minute; 3 right angled directions for 2 hours   |
| Shock:                | 50G (490m/s <sup>2</sup> ) acceleration (tested in 6 right angled directions, with 5 shocks in each direction) |
|                       |  |

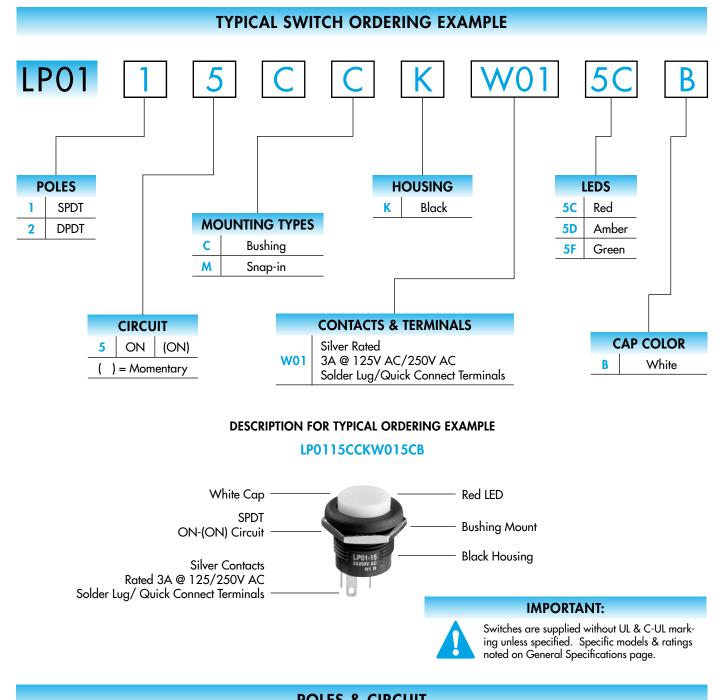
### Installation

| Mounting Torque: | 0.8Nm (7.08 lb•in)                                     |  |  |
|------------------|--|--|--|
|                  | Manual Soldering: See Profile A in Supplement section. |  |  |
| Cleaning:        | Hand clean locally with alcohol based solution         |  |  |

# Standards & Certifications

|                   | Flammability Standards: | UL94V-0 housing & base  |
|-------------------|-------------------------|---|
| R                 | UL Recognition:         | All single & double pole models recognized at 3A @ 125V/250V AC or 3A @ 30V DC  |
| 8 -               | -                       | UL File No. WOYR2.E44145; add "/U" to end of part number to order UL mark on switch   |
| C <sub>o</sub> PL | C-UL Recognition:       | All single & double pole models recognized at 3A @ 125V/250V AC or 3A @ 30V DC C-UL File No. WOYR8.E44145; add "/C-UL" to end of part number to order C-UL mark on switch |



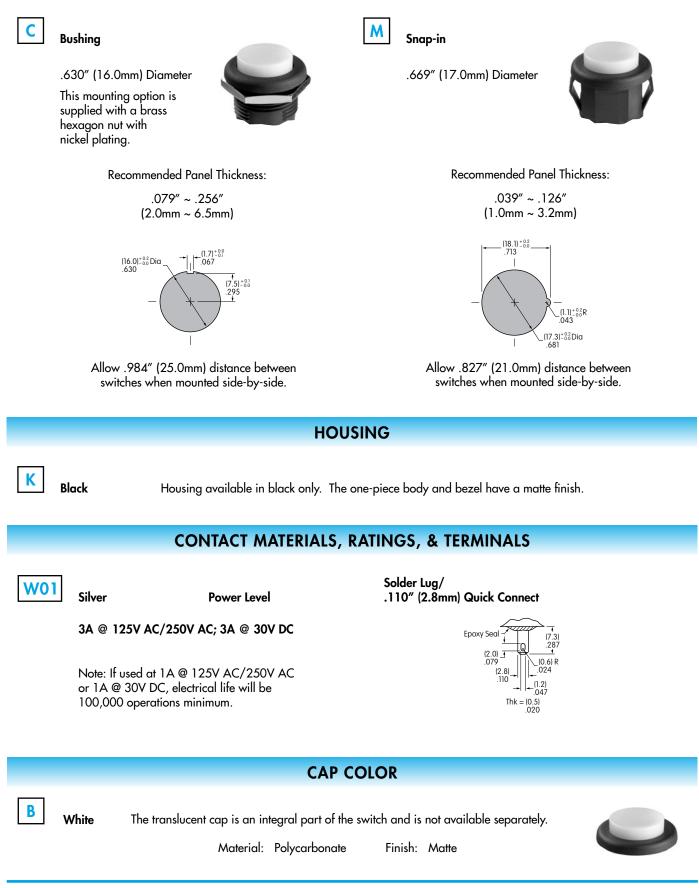


| POLES & CIRCUIT |  |        |                               |         |         |  |  |  |
|-----------------|--|--------|-------------------------------|---------|---------|--|--|--|
|                 | Plunger Position Connected Terminals   ( ) = Momentary Connected Terminals |        | Throw & Power/Lamp Schematics |         |         |  |  |  |
| Pole            | Model  | Normal | Down                          | Normal  | Down    | Note: Terminal markings "COM, NO, NC, L,<br>+ and – " are actually on the switch;<br>terminal numbers are not on the switch. |  |  |
| SP              | LP0115   | ON     | (ON)                          | 1-3     | 1-2     | SPDT 1 (COM)<br>3 • 2 L (+) • O • (-) L  |  |  |
| DP              | LP0125   | ON     | (ON)                          | 1-3 4-6 | 1-2 4-5 | DPDT<br>3 • 2 6 • 5 L(+) • 0 • (-) L   |  |  |

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# **MOUNTING TYPES**





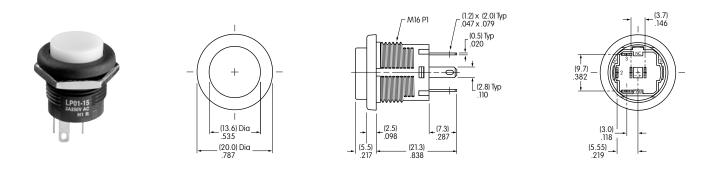
# LED COLORS & SPECIFICATIONS

The electrical specifications shown are determined at a basic temperature of 25°C. LED circuit is isolated and requires external power source. Polarity marks are on the switch. If the source voltage exceeds the rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula in the Supplement section.

| LEDs are an<br>integral part<br>of the switch<br>and are not<br>available<br>separately. | Single Color LED with 1 Element   |                    | <b>5C</b> | <b>5D</b>     | <b>5F</b> |
|--|-----------------------------------|--------------------|-----------|---------------|-----------|
|  | (+)OO(-)                          | Colors             | Red       | Amber         | Green     |
|  | Forward Peak Current              | I <sub>FM</sub>    | 30mA      | 30mA          | 30mA      |
|  | Continuous Forward Current        | I <sub>F</sub>     | 20mA      | 20mA          | 20mA      |
|  | Forward Voltage                   | $V_{\rm F}$        | 1.95V     | 2.0V          | 2.1V      |
|  | Reverse Peak Voltage              | $V_{_{RM}}$        | 5V        | 5V            | 5V        |
|  | Current Reduction Rate Above 25°C | $\Delta I_{\rm F}$ | 0.41mA/°C | 0.29mA/°C     | 0.39mA/°C |
|  | Ambient Temperature Range         |                    |           | −10°C ~ +50°C |           |

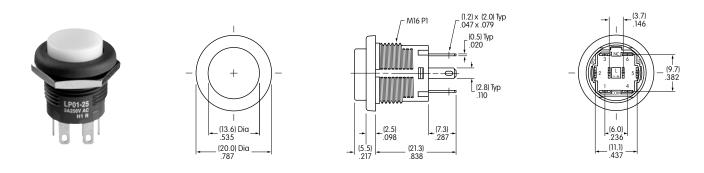
# **TYPICAL SWITCH DIMENSIONS**

**Bushing Mount • Single Pole** 



LP0115CCKW015CB

## **Bushing Mount • Double Pole**

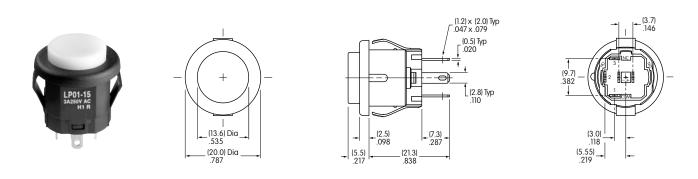


#### LP0125CCKW015CB



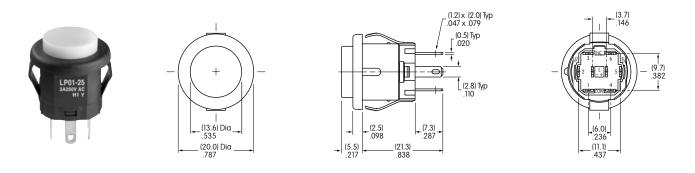
# **TYPICAL SWITCH DIMENSIONS**

## Snap-in • Single Pole



#### LP0115CMKW015CB

### Snap-in • Double Pole



#### LP0125CMKW015DB

# LEGENDS



Easily create and submit your own legends using our new on-line Legend Maker.

Visit www.nkkswitches.com

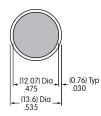
For other legend support options, customers may either contact the factory or utilize the general information and basic specifications presented below.

#### Suggested Printable Area for LP01 Cap



**Recommended Methods:** 

Pad Print or Laser Etch on cap. Epoxy based ink is recommended.



Shaded area is printable area