## New Product

## High Visibility Spot Illumination



## LP01 Series

New Addition to Compact Body Illuminated Pushbutton Switches

# General Specifications 

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

Other Ratings<br>Contact Resistance: 50 milliohms maximum (DC2 ~ 4V 100mA)<br>Insulation Resistance: 200 megohms minimum @ 500V DC<br>Dielectric Strength: 1,000V AC minimum between contacts for 1 minute minimum;<br>$1,500 \mathrm{~V}$ AC minimum between contacts and case for 1 minute minimum<br>Mechanical Life: 500,000 operations minimum<br>Electrical Life: $\quad 50,000$ operations minimum for 3A @ 125/250V AC \& 3A @ 30V DC; 100,000 operations minimum for 1A @ 125/250V AC \& 1A @ 30V DC<br>Nominal Operating Force: $1.5 \pm 0.7 \mathrm{~N}$ for Single Pole; $3.0 \pm 1.2 \mathrm{~N}$ for Double Pole Travel: 3.0 mm (.118")

## Environmental Data <br> Operating Temperature Range: $-10^{\circ} \mathrm{C}$ through $+50^{\circ} \mathrm{C}\left(+14^{\circ} \mathrm{F}\right.$ through $\left.+122^{\circ} \mathrm{F}\right)$

Processing
Soldering: Manual Soldering: $390^{\circ} \mathrm{C}$ maximum @ 4 seconds maximum, 2 cycles

## Distinctive Characteristics

Vivid, super bright LED spot illumination in red, amber or green provides easy status recognition.

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

Installation options include 16 mm bushing mount or 17.3 mm snap-in mount.

Short body of $.551^{\prime \prime}(14.0 \mathrm{~mm})$ conserves behind-panel space.
Combination solder lug and $.110^{\prime \prime}$ quick connect terminals are epoxy sealed to prevent entry of flux, dust, other contaminants.

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


Applications

- Communication Equipment - Wireless Devices
- Test Instruments
- Office Equipment
- Automation Equipment
- Household Appliances


## TYPICAL SWITCH ORDERING EXAMPLE



POLES \& CIRCUIT


## MOUNTING TYPES

## C Bushing

.630" (16.0mm) Diameter


Recommended Panel Thickness:
.079" ~ . $256^{\prime \prime}$ $(2.0 \mathrm{~mm} \sim 6.5 \mathrm{~mm})$

Allow .984" ( 25.0 mm ) distance from center-to-center between switches when mounted side-by-side.

Supplied with a steel hexagon nut with nickel plating.

## Snap-in

.669" (17.0mm) Diameter


Recommended Panel Thickness: .039" ~ . $126^{\prime \prime}$ $(1.0 \mathrm{~mm} \sim 3.2 \mathrm{~mm})$

Allow .827" ( 21.0 mm ) distance from center-to-center between switches when mounted side-by-side.

Cut hole in panel with nub as shown to prevent rotation. Position switch vertically in cutout.

## LED COLORS \& SPECIFICATIONS

LEDs are an integral part of the switch and are not available separately. The electrical specifications shown are determined at a basic temperature of $25^{\circ} \mathrm{C}$. 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 shown here.

| Single Color LED with 1 Element $(+10-(\mathbb{O})$ | Colors | Red 5C | Amber 5D | Green 5F | $R=\frac{E-V_{F}}{I_{F}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum Forward Current | $\mathrm{I}_{\text {FM }}$ | 30 mA | 30 mA | 30 mA | $\text { Where: } \begin{aligned} \mathrm{R} & =\text { Resistor Value (Ohms) } \\ \mathrm{E} & =\text { Source Voltage }(\mathrm{V}) \\ \mathrm{V}_{\mathrm{F}} & =\text { Forward Voltage (V) } \\ \mathrm{I}_{\mathrm{F}} & =\text { Forward Current (A) } \end{aligned}$ |
| Typical Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 20 mA | 20 mA | 20 mA |  |
| Forward Voltage | $\mathrm{V}_{\mathrm{F}}$ | 1.95 V | 2.0 V | 2.1 V | $\xrightarrow{R}$ |
| Maximum Reverse Voltage | $V_{\text {RM }}$ | 5 V | 5 V | 5 V | Anode |
| Current Reduction Rate Above $25^{\circ} \mathrm{C}$ | $\Delta \mathrm{I}_{\mathrm{F}}$ | $0.41 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | $0.29 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | $0.39 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | خ |
| Ambient Temperature Range |  | $-10^{\circ} \mathrm{C} \sim+50^{\circ} \mathrm{C}$ |  |  | Cathode |

## CAP COLORS

## Cap Color Available:

Spot Illuminated Cap

Black with Spot Illumination


Material: Polycarbonate Finish: Matte
The cap is an integral part of the switch and is not available separately.

## TYPICAL SWITCH DIMENSIONS



## Effective Date October 2016

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