# Changes for Bright Red LEDs in LP01 Series Pushbuttons 

Type of Change:
V Engineering

\author{

- Part Number
}

V Product
$\boxtimes$ Appearance


LP01 Series with Bright Red LEDs will Undergo Changes

## CHANGES TO SPECIFICATIONS FOR BRIGHT RED LED

The electrical specifications shown are determined at a basic temperature of $25^{\circ} \mathrm{C}$.
Polarity marks are on bottom of switch. The LED is an integral part of the switch and not available separately.

| Single Color LED with 1 Element | (+1) (®) | $\begin{array}{l}\text { Before } \\ \text { Change }\end{array} 5 \mathrm{C}$ | $\begin{array}{l\|l\|} \text { After } \\ \text { Change } \end{array} 5 \mathrm{C}$ |
| :---: | :---: | :---: | :---: |
| Maximum Forward Current | $\mathrm{I}_{\text {FM }}$ | 30 mA | 30 mA |
| Typical Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 20 mA | 20 mA |
| Forward Voltage | $V_{\text {F }}$ | 1.95 V | 2.05 V |
| Maximum Reverse Voltage | $\mathrm{V}_{\text {RM }}$ | 5 V | 10V |
| Current Reduction Rate Above $25^{\circ} \mathrm{C}$ | $\Delta l_{\text {F }}$ | $0.41 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | $0.4 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ |
| Ambient Temperature Range |  | $-10^{\circ} \mathrm{C} \sim+50^{\circ} \mathrm{C}$ | $-10^{\circ} \mathrm{C} \sim+50^{\circ} \mathrm{C}$ |

## Notes

- The LED circuit is isolated and requires an external power source.
- For best results and safe use of the LEDs, the supply voltage should be more than the LED forward voltage. In addition, an appropriately valued ballast resistor should be used. Without the ballast resistor, the LED will be damaged or destroyed. The resistor value can be calculated by using the formula shown here.

$R=\frac{E-V_{F}}{I_{F}}$
Where: $\mathrm{R}=$ Resistor Value (Ohms)
E = Source Voltage (V)
$\mathrm{V}_{\mathrm{F}}=$ Forward Voltage (V)
$I_{F}^{F}=$ Forward Current (A)
- There are no changes to the switches' external dimensions.
- Contact information is below if more details are needed.

| EFFECTED STANDARD PART NUMBERS FOR LP01 ILLUMINATED PUSHBUTTONS |  |  |  |
| :---: | :---: | :---: | :---: |
| LP0115CCKW015CA | LP0115CMKW015CA | LP0125CCKW015CA | LP0125CMKW015CA |
| LP0115CCKW015CB | LP0115CMKW015CB | LP0125CCKW015CB | LP0125CMKW015CB |

## Effective Date

Changes for LP01 Series Illuminated Pushbuttons with Bright Red LEDs will be effective April 2024.

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