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## Change Notice Kp Series Illuminated Pushbuttons

## Change of Super Bright Bicolor LED Specifications for KP Series

Type of Change:

- Engineering

ㅁ<br>Part Number - Appearance

- Product

All models of KP01 and KP02 Pushbuttons with super bright bicolor LEDs will have a change to the specifications for both Red and Green. The change will effect all standard and custom products for the KP Series.


KP01 Series


KP02 Series

## SUPER BRIGHT BICOLOR LED SPECIFICATIONS



KP Series illuminated pushbuttons are electrostatic sensitive.

The electrical specifications shown are determined at a basic temperature of $25^{\circ} \mathrm{C}$.

Amber can be achieved by simultaneous illumination of Red and Green.

|  | Colors | Before Change |  | After Change |  | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minimum Luminous Intensity | $\mathrm{I}_{\mathrm{V}}$ | 450 | 820 | 230 | 220 | mcd |
| Standard Luminous Intensity | $\mathrm{I}_{\mathrm{V}}$ | 700 | 1100 | 290 | 270 | mcd |
| Maximum Forward Current | $I_{\text {FM }}$ | $\begin{array}{\|c\|} \hline 30 \\ (25 \text { for Amber) } \end{array}$ | $\begin{gathered} 25 \\ (22 \text { for Amber) } \end{gathered}$ | $\begin{array}{\|c\|} \hline 30 \\ (25 \text { for Amber) } \end{array}$ | $\begin{array}{\|c\|} \hline 25 \\ (22 \text { for Amber) } \end{array}$ | mA |
| Typical Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 15 | 15 | 15 | 5 | mA |
| Typical Forward Current for Alternating Legends | $I_{F}$ |  | , | 25 | 15 | mA |
| Forward Voltage | $V_{\text {F }}$ | 2.1 | 3.2 | 2.0 | 3.1 | V |
| Maximum Power Dissipation | $P_{\text {D }}$ | 63 | 80 | 72 | 88 | mW |
| Maximum Reverse Voltage | $V_{\text {RM }}$ | 5 | 5 | 5 | 7 | V |
| Wavelength at Maximum Emission | $\lambda$ | $630 \sim 640$ | $520 \sim 535$ | 620 ~ 630 | 528 ~ 538 | nm |
| Current Reduction Rate Above $25^{\circ} \mathrm{C}$ | $\Delta I_{F}$ | 0.40 | 0.36 | 0.40 | 0.36 | mA/ ${ }^{\circ} \mathrm{C}$ |
| Ambient Temperature Range |  | -25 ~ | +50 | -25 | $\sim+50$ | ${ }^{\circ} \mathrm{C}$ |

## Notes

- LEDs are an integral part of the switch and are not available separately.
- The LED circuit is isolated and requires an external power source.
- 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.

- The changes to KP Series LEDs do not affect any external dimensions of the switches.
- Contact the factory if further details are needed.


## Effective Date

Changes to KP Series LEDs will be effective with June 2014 production.

