

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Ø10 mm panel mount LED indicators



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### **DISTINCTIVE FEATURES**

5 mm flush diffused LED, standard, hyper bright or water clear Flush chamfered bezel style (200 mm long) wire terminations





# **ENVIRONMENTAL SPECIFICATIONS**

- IP67 sealing option (EN60529)
- Operating & Storage Temperature Range: -40 °C to +85° C (-40 °F to +185 °F)



## **GENERAL SPECIFICATIONS**

- Max Reverse Voltage: 5 V
- Viewing Angle: 60° (dependant on model)
- Life Expectancy: 100,000 hours
- Torque: 20 to 25 cNm (dependent on option)
- Maximum panel thickness 7 mm

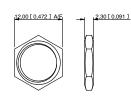


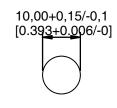
#### **MATERIALS**

• Stainless Steel 316L or Anodized Aluminium with potted rear end



### **MOUNTING**





The company reserves the right to change specifications without notice.

All LED characteristics are dependent upon environmental conditions. Therefore published data should be considered nominal and



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# **ELECTRICAL SPECIFICATIONS**

#### STANDARD LED INTENSITY

LED COMPONENT SPECIFICATIONS				
	Prominent and Recessed	Flush	Forward Voltage	
HE Red	80 mcd	8 mcd	2.0 V	
Green	60 mcd	6 mcd	2.2 V	
Yellow	50 mcd	6 mcd	2.1 V	
Blue	1,600 mcd	50 mcd	3.3V	
White	1,600 mcd	500 mcd	3.3 V	
Orange	60 mcd	110 mcd	2.2 V	
Bi-color (Typical) (Red/Green)	14/30 mcd	15/10 mcd	2.0 V/2.2 V	
Tri-color (Typical) (Red/Green/Yellow)	60/15/13 mcd	15/10/6 mcd	2.0 V/2.2 V/2.1 V	

Bi-color - The color is changed by reversing the polarity of the supply voltage.

Tri-color - The indicator has red and green LEDs, when both connected yellow is produced.

#### SUPER BRIGHT LED INTENSITY

LED COMPONENT SPECIFICATIONS				
	Prominent and Recessed	Flush	Forward Voltage	
HE Red	5,000 mcd	1,300 mcd	2.2 V	
Green	10,000 mcd	1,200 mcd	3.3 V	
Yellow	4,000 mcd	350 mcd	2.0 V	
Blue	2,200mcd	280 mcd	3.3 V	
White	2,500 mcd	950 mcd	3.3 V	
Orange	4,000 mcd	500 mcd	2.2 V	

#### HYPER BRIGHT LED INTENSITY

LED COMPONENT SPECIFICATIONS				
	Prominent and Recessed	Flush	Forward Voltage	
HE Red	6,000 mcd	980 mcd	2.2 V	
Green	1,900 mcd	300 mcd	3.3 V	
Yellow	1,600 mcd	250 mcd	2.0 V	
Orange	2,400 mcd	110 mcd	2.2 V	

- The operating voltage must not be exceeded by more that 10% as this will result in reduced life expectancy
- Luminous intensity is measured at 20 mA on a discrete led unless otherwise stated.
- Luminous intensities and color shades of white LEDs may vary within a batch.
- Luminous intensity will be reduced with lower operating current.

Voltage	Operating Voltage	Operating Current
	(Min to Max)	(Typical All Types)
02 (No Resistor)	1.8 to 3.3 VDC	20 mA max*
6 VDC	5.4 to 6.6 VDC	20 mA
12 VDC	10.8 to 13.2 VDC	20 mA
24 VDC	21.6 to 26.4 VDC	20 mA
28 VDC	25.2 to 30.8 VDC	20 mA

<sup>\*</sup> Customer to supply resistor for desired operating current.

#### ADDITIONNAL INFORMATION ON LED COMPONENTS

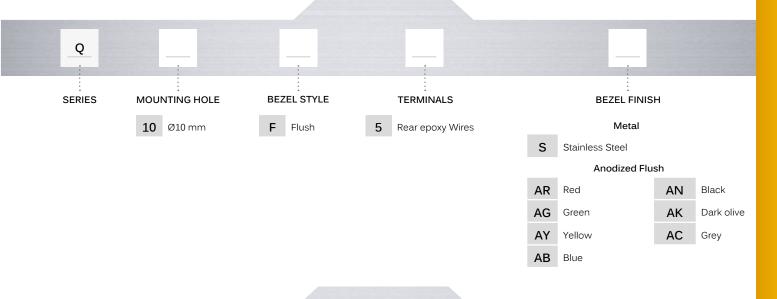
- Bi-color leds, by connecting the gold solder lug

   (+) one color is produced, by reversing the supply voltage another color is produced Bi-colors are available up to 28 VDC. [AC products not available]
- The tri-color led has red and green leds when both are connected yellow is produced

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#### **BUILD YOUR PART NUMBER**







#### **ABOUT THIS SERIES**

- Notice: please note that not all combinations of above numbers are available.
  - Standard wire length is 200 mm, 24 AWG UL1061, red wire denotes anode (+), black wire denotes cathode (-) for other wire lengths consult APEM.
  - For LEDs with alternative voltages consult APEM
  - Standard Tri-color wire terminations are two Anodes (+) and one Cathode (-)
  - Tri-color wires are one red (+) and one green (+) Anode and one black (-) Cathode

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#### **FLUSH BEZEL**



#### REAR EPOXY WIRES

