Q10 series

Ø10 mm panel mount LED indicators



DISTINCTIVE FEATURES

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



ENVIRONMENTAL SPECIFICATIONS

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

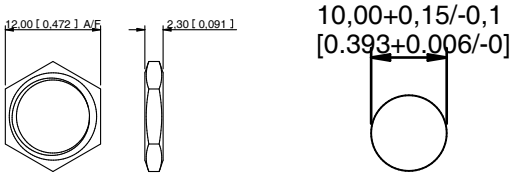
GENERAL SPECIFICATIONS

- Max Reverse Voltage: 5 V
- Viewing Angle: 60° (dependant on model)
- Life Expectancy: 100,000 hours
- Torque: 20 to 25 cNm
- Maximum panel thickness 7 mm
- Insulation resistance : 4,000 MΩ at 500 VDC

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		
	Flush	Forward Voltage
HE Red	8 mcd	2.0 V
Green	6 mcd	2.2 V
Yellow	6 mcd	2.1 V
Blue	150 mcd	3.3V
White	500 mcd	3.3 V
Orange	110 mcd	2.2 V
Bi-color (Typical) (Red/Green)	15/10 mcd	2.0 V/2.2 V
Tri-color (Typical) (Red/Green/Yellow)	15/10/6 mcd	2.1 V/3.1 V/3.1 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		
	Flush	Forward Voltage
HE Red	1,300 mcd	2.2 V
Green	3,000mcd	3.3 V
Yellow	1,120 mcd	2.1 V
Blue	280 mcd	3.3 V
White	1,560 mcd	3.3 V
Orange	500 mcd	2.2 V

HYPER BRIGHT LED INTENSITY

LED COMPONENT SPECIFICATIONS		
	Flush	Forward Voltage
HE Red	980 mcd	2.2 V
Green	300 mcd	3.3 V
Yellow	250 mcd	2.0 V
Orange	110 mcd	2.2 V

RGB LED INTENSITY

ITEM	SYMBOL	CONDITION	TYP.
DC Forward Voltage	V_F(R)	IF=20 mA	2.1
	V_F(B/G)	IF=20 mA	2.1
Luminous Intensity	Iv (Red)		330 mcd
	Iv (Green)		750 mcd
	Iv (Blue)		150 mcd

Voltage	Operating Voltage (Min to Max)	Operating Current (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

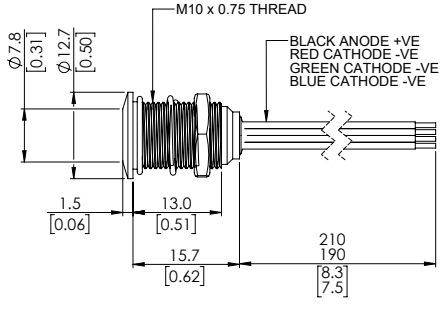
* Customer to supply resistor for desired operating current.

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
- 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.
- Recommended usage:
  - Standard: Homogenous light output that is good for indoor applications.
  - Hyper Bright: Homogenous light output that is good for outside viewing and is daylight visible.
  - Super Bright: A water clear LED that is good for long distance viewing and is daylight visible.

CONNECTIONS

REAR EPOXY WIRES FOR RGB OPTION



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BUILD YOUR PART NUMBER

Q

SERIES

MOUNTING HOLE

10	Ø10 mm

BEZEL STYLE

F	Flush

TERMINALS

5	Rear epoxy Wires

BEZEL FINISH

Metal

S	Stainless Steel

Anodized Flush

AR	Red	AN	Black
AG	Green	AK	Dark olive
AY	Yellow	AC	Grey
AB	Blue		

TYPE OF ILLUMINATION

XX	Fixed Light
KK	Flashing Light (12 V – 28 VDC)
YY	Bi-color
ZZ	Tri-color

LED COLOR

R	Red
G	Green
Y	Yellow
B	Blue
W	White
O	Orange
HR	Hyper Bright Red
HG	Hyper Bright Green
HY	Hyper Bright Yellow
HO	Hyper Bright Orange

SR	Super Bright Red
SG	Super Bright Green
SY	Super Bright Yellow
SB	Super Bright Blue
SW	Super Bright White
SO	Super Bright Orange
RG	Red/Green
RY	Red/Yellow
GY	Green/Yellow
RYG	Red/Yellow/Green
RGB	Red/Green/Blue*

* Common anode only

VOLTAGE

02	no resistor**
06	6V DC
12	12 VDC
12A	12 VAC/DC
24	24 VDC
24A	24 VAC/DC
28	28 VDC
28A	28 VAC/DC

** please refer to the forward voltage in electrical specifications

SEALING

(Blank)	Unsealed
E	IP67

(Blank)	Common cathode
-CA	Common anode

ABOUT THIS SERIES

Notice: please note that not all combinations of above numbers are available.

- Standard and Bi-Colour are provided in Standard wire length is 200mm, 24AWG UL1061, Red wire denotes anode (+), Black wire denotes cathode (-) for other 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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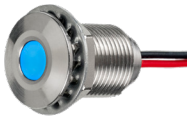
FLUSH BEZEL



REAR EPOXY WIRES

