

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

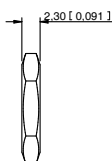
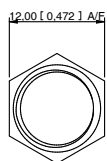


MATERIALS

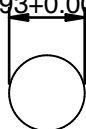
- Stainless Steel 316L or Anodized Aluminium with potted rear end



MOUNTING



10,00+0,15/-0,1
 [0.393+0.006/-0]



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	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

* Customer to supply resistor for desired operating current.

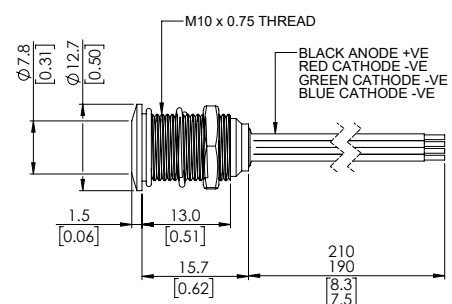
ADDITIONAL INFORMATION ON LED COMPONENTS

- 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 than 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



Q10 series

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BUILD YOUR PART NUMBER

Q

SERIES

10

MOUNTING HOLE

Ø10 mm

F

BEZEL STYLE

Flush

5

TERMINALS

Rear epoxy Wires

S

BEZEL FINISH

Metal

S Stainless Steel

Anodized Flush

AR Red

AG Green

AY Yellow

AB Blue

AN Black

AK Dark olive

AC Grey

XX

TYPE OF ILLUMINATION

Fixed Light

Flashing Light (12 V – 28 VDC)

Bi-color

Tri-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

LED COLOR

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

02

VOLTAGE

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

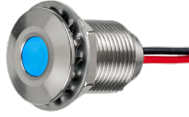
- Standard Tri-color wire terminations are two Anodes (+) and one Cathode (-)

- Tri-color wires are one red (+) and one green (+) Anode and one black (-) Cathode

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FLUSH BEZEL



REAR EPOXY WIRES

