

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 (dependent on option)
- Maximum panel thickness 7 mm

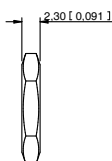
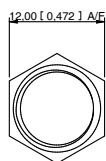


MATERIALS

- 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

Q10 series

Ø10 mm panel mount LED indicators



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	2,200 mcd	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

RGB LED INTENSITY

ITEM	SYMBOL	CONDITION	TYP.
DC Forward Voltage	$V_F(R)$	$I_F=20\text{ mA}$	2.1
	$V_F(B/G)$	$I_F=20\text{ mA}$	2.1
Luminous Intensity	$I_v(\text{Red})$		330 mcd
	$I_v(\text{Green})$		750 mcd
	$I_v(\text{Blue})$		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.

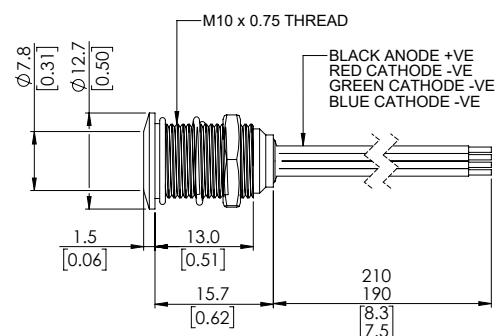
ADDITIONAL INFORMATION ON LED COMPONENTS

- 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.



CONNECTIONS

REAR EPOXY WIRES FOR RGB OPTION





BUILD YOUR PART NUMBER

Q				
SERIES	MOUNTING HOLE	BEZEL STYLE	TERMINALS	BEZEL FINISH
	10 Ø10 mm	F Flush	5 Rear epoxy Wires	Metal S Stainless Steel Anodized Flush AR Red AN Black AG Green AK Dark olive AY Yellow AC Grey AB Blue

TYPE OF ILLUMINATION	LED COLOR	VOLTAGE	SEALING	
XX Fixed Light KK Flashing Light (12 V – 28 VDC) YY Bi-color ZZ 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	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*	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	
			(Blank) Unsealed E IP67 (Blank) Common cathode -CA Common anode	

* Common anode only



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

Q10 series

Ø10 mm panel mount LED indicators

FLUSH BEZEL



REAR EPOXY WIRES

