

Q SERIES Ø12mm (.472") Panel Mount LED Indicators

Distinctive features and specification

VOYC1603R1US

Features

- 12mm panel mounting LED indicator
- 8mm colored diffused epoxy lens or 8mm water clear super bright LEDs
- Plated brass bezel finished in bright chrome, black chrome or satin grey and moulded polycarbonate rear body
- Prominent bezel style
- 2VDC – 220VAC
- (2.8 x 0.8) solder lug/faston terminals, pins or (200mm long) wire terminations
- IP67 sealing option (EN60529)
- Supplied with fixing nut and spring washer

NB: UL Recognized Component



TECHNICAL SPECIFICATIONS

Voltage	Operating Voltage	Operating Current
	(Min to Max)	(Typical All Types)
02 (No Resistor)	1.8 to 3.3VDC	20mA max*
6VDC	5.4 to 6.6VDC	20mA
12VDC	10.8 to 13.2VDC	20mA
24VDC	21.6 to 26.4VDC	20mA
28VDC	25.2 to 30.8VDC	20mA
110VAC	99 to 121VAC	6mA
220VAC	207 to 253VAC	3mA

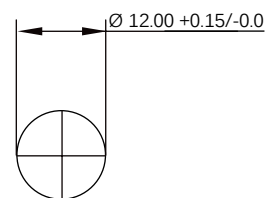
Max Reverse Voltage: 5V

Viewing Angle: 30–100° (dependant on model)

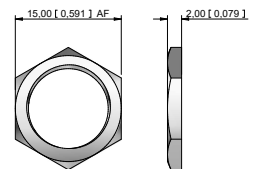
Life Expectancy: 100,000 hours

Temperature Range: –40 to +85°C (operating & storage)

Torque: 75cNm



PANEL CUTOUT



M12 x 0.75 THREAD

Standard LED Intensity	Prominent	Forward Voltage
HE Red	350mcd	2.0V
Green	60mcd	2.2V
Yellow	50mcd	2.1V
Blue	800mcd	3.3V
White	1,200mcd	3.3V
Orange	100mcd	2.0V
Bi-color (Typical) (Red/Green)	20/10mcd	2.0V/2.2V
Tri-color (Typical) (Red/Green/Yellow)	80/15/13mcd	2.0V/2.2V/2.1V

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	Prominent	Forward Voltage
HE Red	3,000mcd	2.2V
Green	8,000mcd	3.3V
Yellow	1,100mcd	2.3V
Blue	1,500mcd	3.3V
White	1,200mcd	3.3V
Orange	2,000mcd	2.2V

Hyper Bright LED	Prominent	Forward Voltage
HE Red	1,200mcd	2.0V
Green	2,200mcd	3.3V
Yellow	1,600mcd	2.0V
Orange	4,300mcd	2.2V

Luminous intensity will be reduced with lower operating current.

Note: The operating voltage must not be exceeded by more than 10% as this will result in reduced life expectancy.

The company reserves the right to change specifications without notice.

* Customer to supply resistor for desired operating current.

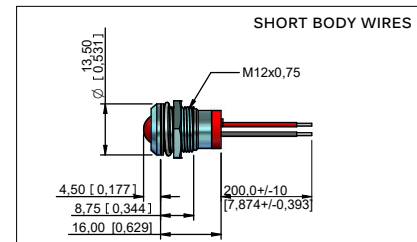
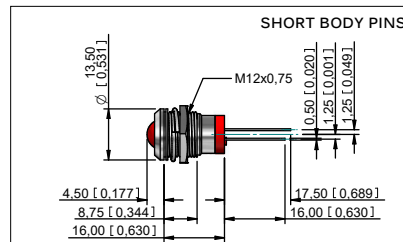
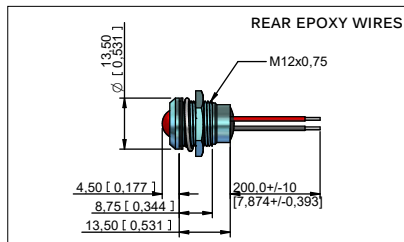
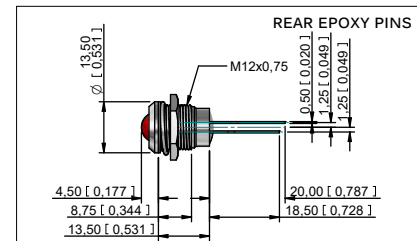
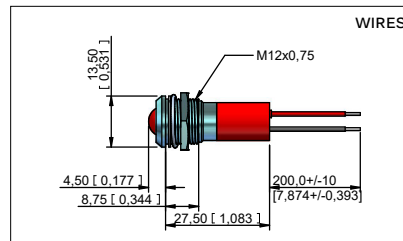
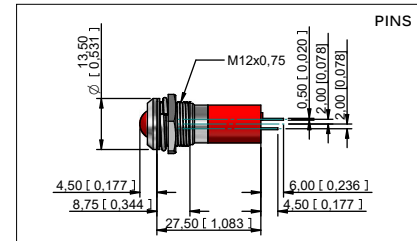
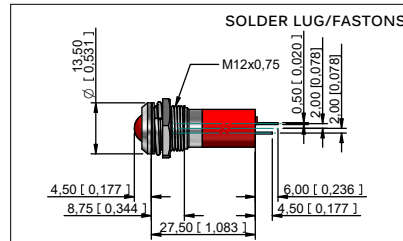
Luminous intensity is measured at 20mA on a discrete LED unless otherwise stated.

Luminous intensities and color shades of white LEDs may vary within a batch.

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Technical Drawings

PROMINENT BEZEL



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Overview

STANDARD OPTIONS

The Q12 Series is available with a range of standard options, to specify your LED, simply choose one option from each column. An example is shown below.

Q	12	P	1	B	XX	G	12	E
SERIES	MOUNTING HOLE	BEZEL STYLE	TERMINALS	BEZEL FINISH	TYPE OF ILLUMINATION	LED COLOR	VOLTAGE	SEALING
Q	12 = Ø12mm	P = Prominent	1 = Solder Lug/Fastons (2.8 x 0.8)	C = Bright Chrome	XX = Fixed Light	R = Red	02 = no resistor*	(Blank) = Unsealed
			2 = Pins	B = Black Chrome	KK = Flashing Light (12 - 28VDC)	G = Green	06 = 6VDC	E = IP67
			3 = Wires	G = Satin Grey	YY = Bi-color	Y = Yellow	12 = 12VDC	
			4 = Rear epoxy Pins		ZZ = Tri-color	B = Blue	12A = 12VAC/DC	
			5 = Rear epoxy Wires			W = White	24 = 24VDC	
			6 = Short body Pins			O = Orange	24A = 24VAC/DC	
			7 = Short body Wires				28 = 28VDC	
						HR = Hyper Bright Red	28A = 28VAC/DC	
						HG = Hyper Bright Green	110 = 110VAC	
						HY = Hyper Bright Yellow	220 = 220VAC	
						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		

Example Q12P7GXXG12E

Ø12mm, prominent bezel, short body wires, satin chrome finish, fixed light, green, 12VDC LED, IP67 panel sealed



- Gold Faston terminal denotes Anode (+), silver terminal denotes Cathode (-)
- Standard wire length is 200mm, 24AWG UL1061, red wire denotes Anode (+), black wire denotes Cathode (-) for other wire lengths consult APEM
- For LEDs with alternative voltage consult APEM
- Bi-color LEDs, by connecting the gold Faston (+) one color is produced, by reversing the supply voltage another color is produced – Bi-colors are available up to 28VDC
- Take care when soldering to the Faston terminals (recommended solder temperature 300°C - 3 sec)
- Max voltage for pins and wires is 28V
- Maximum panel thickness 7mm
- Tri-colors are only available behind panel epoxy sealed with wires (option 1) or pins (option 3)
- 110VAC and 220VAC only available with solder lug/Faston terminals
- We recommend using Hyperbright or Superbright LEDs for use at 110VAC and 220VAC
- The Tri-color LED has red and green LEDs when both are connected yellow is produced
- Standard Tri-color Faston terminals are two Anodes (+) and one Cathode (-)
- Tri-color wires are one red (+) and one green (+) Anode and one black (-) Cathode
- Tri-color pins are center (-) Cathode, shortest (+) Anode pin green, longest (+) Anode pin red

* = For resistorless versions (02) please refer to the forward voltage on page 1