

Q14 series

Ø14 mm panel mount LED indicators



DISTINCTIVE FEATURES

10 mm colored diffused epoxy lens or 10 mm water clear super bright LEDs

Prominent and flush bezel styles

(2.8 x 0.8) solder lug/faston terminals, pins or (200 mm long) wire terminations

Custom engraving available



ENVIRONMENTAL SPECIFICATIONS

- IP67 sealing option (EN60529)
- Operating & Storage Temperature Range:
Rear plastic body: -30 °C to +65° C (-22 °F to +149 °F)
Rear epoxy body: -40 °C to +85° C (-40 °F to +185 °F)



GENERAL SPECIFICATIONS

- Max Reverse Voltage: 5 V
- Viewing Angle: 30–100° (dependant on model)
- Life Expectancy: 100,000 hours
- Torque: 4 cNm (dependent on option)
- Maximum panel thickness 11 mm



MATERIALS

- Plated brass bezel finished in bright chrome, black chrome or satin grey and moulded polycarbonate rear body



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 subject to variations.



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ELECTRICAL SPECIFICATIONS

STANDARD LED INTENSITY

LED COMPONENT SPECIFICATIONS			
	Prominent and Recessed	Flush	Forward Voltage
HE Red	80 mcd	10 mcd	2.0 V
Green	60 mcd	5 mcd	2.2 V
Yellow	50 mcd	4 mcd	2.1 V
Blue	540 mcd	100 mcd	3.3 V
White	1000 mcd	150 mcd	3.3 V
Orange	80 mcd	200 mcd	2.2 V
Bi-color (Typical) (Red/Green)	15/15 mcd	14/10 mcd	2.0V/2.2 V
Tri-color (Typical) (Red/Green/Yellow)	60/50/50mcd	15/10/30 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	17,000 mcd	2,000 mcd	2.2 V
Green	11,000 mcd	680 mcd	3.3 V
Yellow	4,000 mcd	350 mcd	2.0 V
Blue	2,500mcd	250 mcd	3.3 V
White	4,400 mcd	250 mcd	3.3 V
Orange	2,800 mcd	300 mcd	2.2 V

HYPER BRIGHT LED INTENSITY

LED COMPONENT SPECIFICATIONS			
	Prominent and Recessed	Flush	Forward Voltage
HE Red	2,800 mcd	800 mcd	2.1 V
Green	2,200 mcd	250 mcd	3.2 V
Yellow	1,300 mcd	250 mcd	2.0 V
Orange	850 mcd	200 mcd	2.1 V

- 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.

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
110 VAC	99 to 121 VAC	6 mA
220 VAC	207 to 235 VAC	3 mA

* Customer to supply resistor for desired operating current.



BUILD YOUR PART NUMBER

Q SERIES		MOUNTING HOLE		TERMINALS		BEZEL FINISH	
14 Ø14mm		BEZEL STYLE		1 Solder Lug/ Fastons (2.8 x 0.8)		5 Rear epoxy Wires	
		P Prominent		2 Pins		6 Short body Pins	
		R Recessed		3 Wires		7 Short body Wires	
		F Flush		4 Rear epoxy Pins		ANODIZED FLUSH	
						AR Red	
						AG Green	
						AY Yellow	
						AB Blue	
						AN Black	
						C Bright Chrome	
						B Black Chrome	
						G Satin Grey	

TYPE OF ILLUMINATION		LED COLOR		VOLTAGE		SEALING	
XX Fixed Light		R Red		HG Hyper Bright Green		02 no resistor	
KK Flashing Light (12V – 28VDC)		G Green		HY Hyper Bright Yellow		06 6VDC	
YY Bi-color		Y Yellow		HO Hyper Bright Orange		12 12VDC	
ZZ Tri-color		B Blue		SR Super Bright Red		12A 12VAC/DC	
		W White		SG Super Bright Green		24 24VDC	
		O Orange		SY Super Bright Yellow		24A 24VAC/DC	
		HR Hyper Bright Red		SB Super Bright Blue		28 28VDC	
				SW Super Bright White		28A 28VAC/DC	
				RG Red/Green		110 110VAC	
				RY Red/Yellow		220 220VAC	
				GY Green/Yellow			
				RYG Red/Yellow/ Green			
						(Blank) Unsealed	
						E IP67	



ABOUT THIS SERIES



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

- Gold faston terminal denotes anode (+), silver terminal denotes cathode (-)
- Standard wire length is 200 mm, 22 AWG UL1061, red wire denotes anode (+), black wire denotes cathode (-) for other wire lengths consult APEM
- For LEDs with alternative voltages and multi-voltage options consult APEM
- 110 VAC and 220 VAC, short body terminal options, 5, 6 and 7 please consult the factory
- 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 28 VDC

- Take care when soldering to the faston terminals (recommended solder temperature 300 °C - 3 sec)
- Short body pins and wires are only available up to 28 VDC
- 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
- We recommend using Hyperbright or Superbright LEDs for use at 110 VAC and 220 VAC

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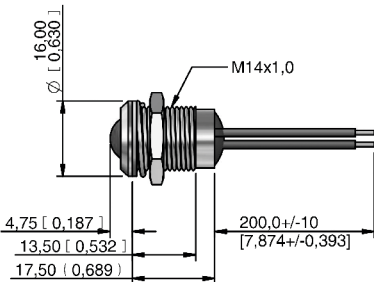
PROMINENT BEZEL



WIRES



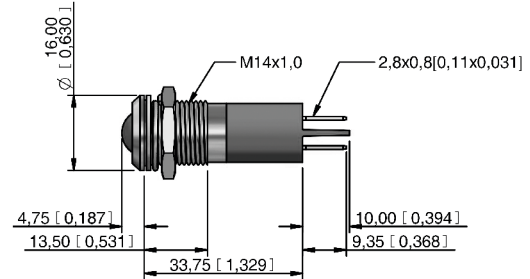
REAR EPOXY WIRES



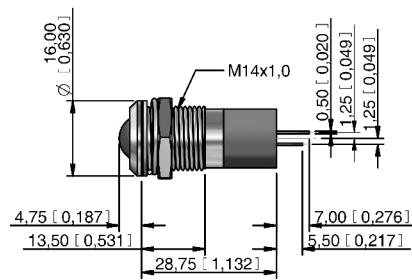
SHORT BODY WIRES



SOLDER LUG/FASTON



PINS



REAR EPOXY PINS



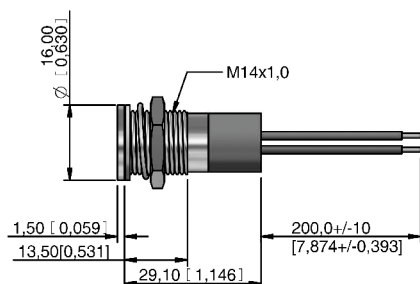
SHORT BODY PINS



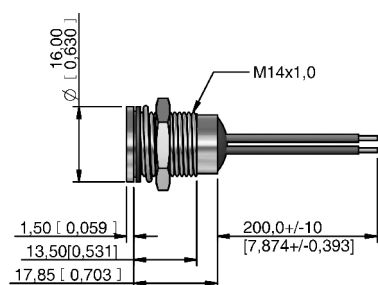
FLUSH BEZEL



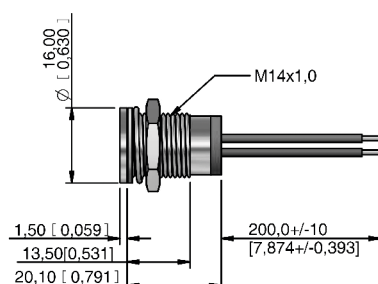
WIRES



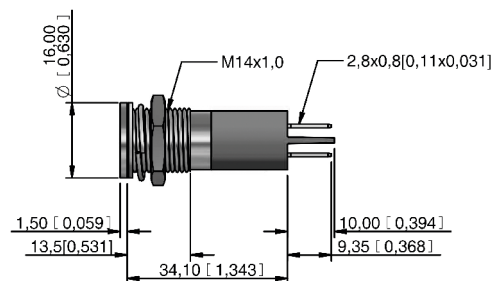
REAR EPOXY WIRES



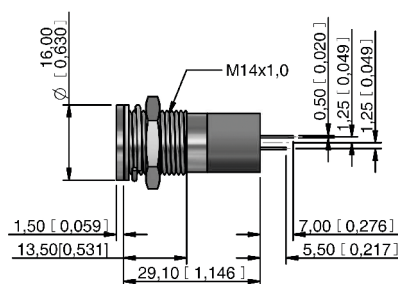
SHORT BODY WIRES



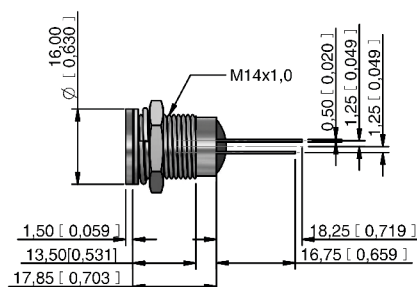
SOLDER LUG/FASTON



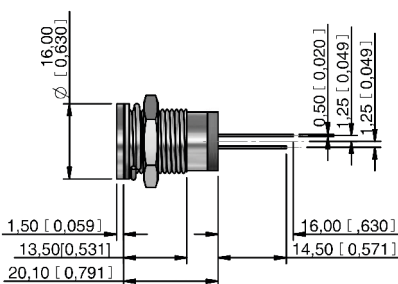
PINS



REAR EPOXY PINS



SHORT BODY PINS



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RECESSED BEZEL



WIRES



REAR EPOXY WIRES



SHORT BODY WIRES



SOLDER LUG/FASTON



PINS



REAR EPOXY PINS



SHORT BODY PINS



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CUSTOM ENGRAVING

Some common codes are listed above, for your custom requirements please contact APEM.
Unless specified standard engraving with white infill will be supplied.
Suffix the part number with legend code :



High beam
-0AJ



Low beam
-097



Rear fog
-027



Front fog
-026



Windscreen
wiper
-021



Windscreen
washer
-022



Ventilator
fan
-023



Turn Signal
-0AH



Side lights
-098



Horn
-041



Hazard
warning
-013



Heating
-018



Brake test
-0BU



Arrow
-0K6



Battery
-0AG



Oil can
-0GP



Windscreen
heating
-020



ABS
-086



Engine coil
-0EL



Seat belt
-0SB



USB
connection
-0UB



Steam
-0ST



ECU
-0EU



Side step
-0AD



Air con
-012



Engine
-040



Boot/Trunk
Release
-0BR



CABLE LENGTH AND CONNECTOR



For custom cable length and connectors contact APEM.