Q SERIES Ø14mm (.551") Panel Mount LED Indicators

Distinctive features and specification

Features

- 14mm panel mounting LED indicator
- 10mm colored diffused epoxy lens or 10mm water clear super bright LEDs
- Plated brass bezel finished in bright chrome, black chrome or satin grey and moulded polycarbonate rear body
- Prominent recessed and flush bezel styles
- Custom engraving available
- 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 (Min to Max)	Operating Current (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

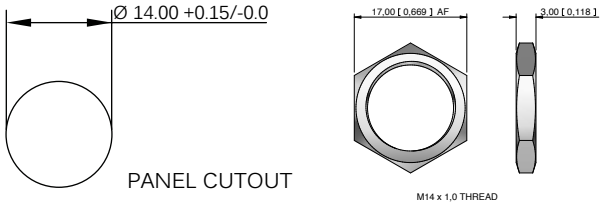
Max Reverse Voltage: 5V

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

Life Expectancy: 100,000 hours

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

Torque: 75cNm



Standard LED Intensity	Prominent and Recessed	Flush	Forward Voltage
HE Red	80mcd	10mcd	2.0V
Green	60mcd	5mcd	2.2V
Yellow	50mcd	4mcd	2.1V
Blue	540mcd	100mcd	3.3V
White	1000mcd	150mcd	3.3V
Orange	80mcd	200mcd	2.0V
Bi-color (Typical) (Red/Green)	15/15mcd	14/10mcd	2.0V/2.2V
Tri-color (Typical) (Red/Green/Yellow)	60/50/50mcd	15/10/30mcd	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 and Recessed	Flush	Forward Voltage
HE Red	17,000mcd	2,000mcd	2.2V
Green	11,000mcd	680mcd	3.5V
Yellow	4,000mcd	350mcd	2.3V
Blue	2,500mcd	250mcd	3.3V
White	4,400mcd	250mcd	3.3V
Orange	2800mcd	300mcd	2.1V

Hyper Bright LED	Prominent and Recessed	Flush	Forward Voltage
HE Red	2,800mcd	800mcd	2.1V
Green	2,200mcd	250mcd	3.2V
Yellow	1,300mcd	250mcd	2.0V
Orange	850mcd	200mcd	2.1V
Luminous intensity will be reduced with lower operating current.			

Note: The operating voltage must not be exceeded by more that 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.
LED characteristics are dependent upon environmental conditions. Therefore published data should be considered nominal.

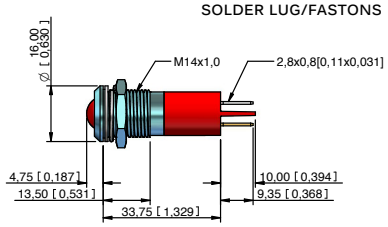
Q SERIES Ø14mm (.551") Panel Mount LED Indicators

Technical Drawings

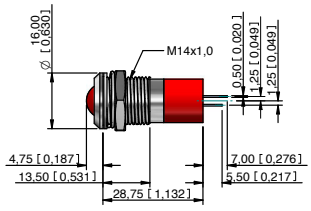
PROMINENT BEZEL



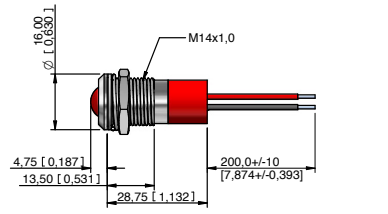
SOLDER LUG/FASTONS



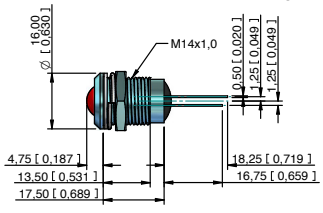
PINS



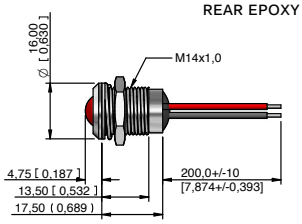
WIRES



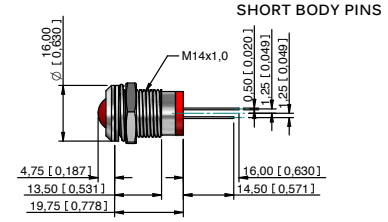
REAR EPOXY PINS



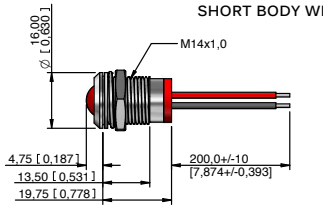
REAR EPOXY WIRES



SHORT BODY PINS



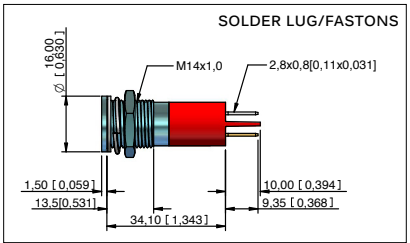
SHORT BODY WIRES



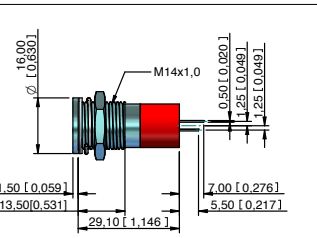
FLUSH BEZEL



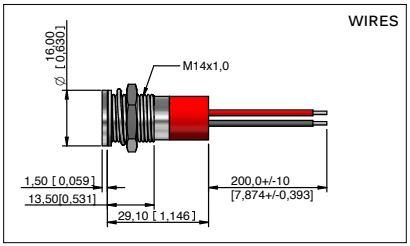
SOLDER LUG/FASTONS



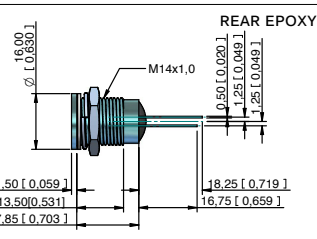
PINS



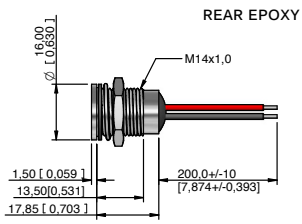
WIRES



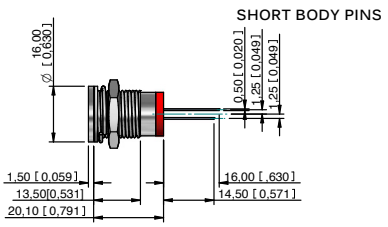
REAR EPOXY PINS



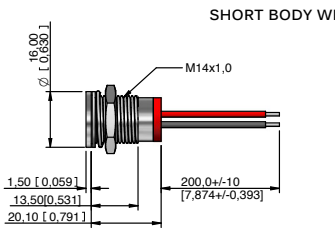
REAR EPOXY WIRES



SHORT BODY PINS



SHORT BODY WIRES

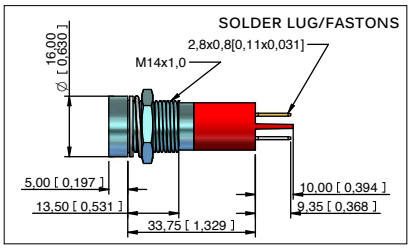


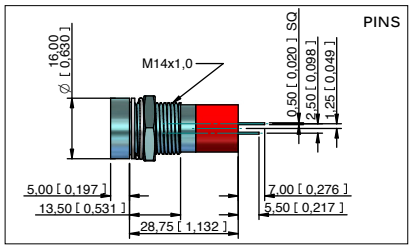
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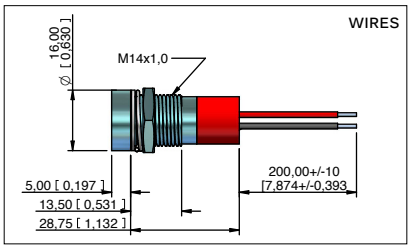
Technical Drawings

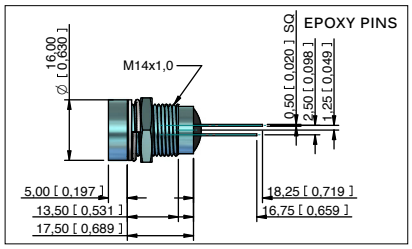
RECESSED BEZEL

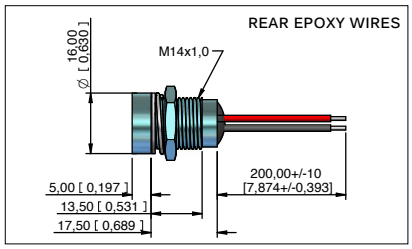


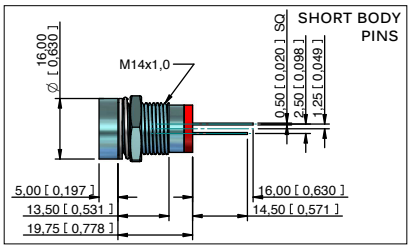


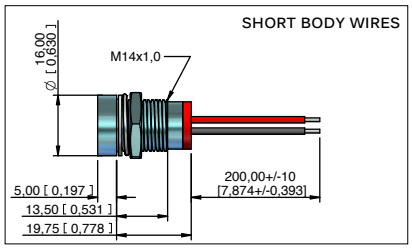












Q SERIES Ø14mm (.551") Panel Mount LED Indicators

Custom options

CUSTOM MARKING



Cable length & connector



For custom cable length and connectors please contact APEM

CUSTOM ENGRAVING

Suffix the part number with legend code.

Code	Symbol	Description
-0AJ		High Beam
-097		Low Beam
-027		Rear Fog
-026		Front Fog
-021		Windscreen Wiper
-022		Windscreen Washer
-023		Ventilator Fan
-0AH		Turn Signal
-098		Side Lights

Code	Symbol	Description
-041		Horn
-013		Hazard Warning
-018		Heating
-0BU		Brake Test
-0K6		Arrow
-0AG		Battery
-0GP		Oil Can
-020		Windscreen Heating
-086	ABS	ABS

Code	Symbol	Description
-0EL		Engine Coil
-0SB		Seat Belt
-0UB		USB Connection
-0ST		Steam
-0EU	ECU	ECU
-0AD		Side Step
-012		Air Con
-040		Engine
-0BR		Boot/Trunk Release

Some common codes are listed above, for your custom requirements please contact APEM.
Unless specified, standard engraving with white infill will be supplied.

Q SERIES Ø14mm (.551") Panel Mount LED Indicators

Order Overview

STANDARD OPTIONS

The Q14 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		14		P		1		C		XX		B		28		E

SERIES	MOUNTING HOLE	BEZEL STYLE	TERMINALS	BEZEL FINISH	TYPE OF ILLUMINATION	LED COLOR	VOLTAGE	SEALING
Q	14 = Ø14mm	P = Prominent	1 = Solder Lug/ Fastons (2.8 x 0.8)	C = Bright Chrome	XX = Fixed Light	R = Red	02 = no resistor*	(Blank) = Unsealed
		R = Recessed	2 = Pins	B = Black Chrome	KK = Flashing Light (12- 28VDC)	G = Green	06 = 6VDC	E = IP67
		F = Flush	3 = Wires	G = Satin Grey	YY = Bi-color	Y = Yellow	12 = 12VDC	
			4 = Rear epoxy Pins	Anodised Flush	ZZ = Tri-color	B = Blue	12A = 12VAC/DC	
			5 = Rear epoxy Wires	AR = Red		W = White	24 = 24VDC	
			6 = Short body Pins	AG = Green		O = Orange	24A = 24VAC/DC	
			7 = Short body Wires	AY = Yellow			28 = 28VDC	
				AB = Blue		HR = Hyper Bright Red	28A = 28VAC/DC	
				AN = Black		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		
						RG = Red/Green		
						RY = Red/Yellow		
						GY = Green/Yellow		
						RYG = Red/Yellow/Green		

Example Q14F5ABXXB12E
Ø14mm, Flush bezel, wire termination, blue LED
anodized blue finish, fixed light,
12VDC LED, IP67 panel sealed,



- Gold Faston terminal denotes Anode (+), silver terminal denotes Cathode (-)
- Standard wire length is 200mm, 22AWG UL1007, red wire denotes Anode (+), black wire denotes Cathode (-) for other wire lengths consult APEM
- For LEDs with alternative voltages 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)
- Short body pins and wires are only available up to 28VDC
- 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
- Maximum panel thickness 11mm
- We recommend using Hyper bright LEDs for use at 110VAC and 220VAC
- For multi-voltage options please consult APEM

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Apem:

Q14P1CKKR12 Q14P1CXXSB12 Q14P1CXXSG12 Q14P1CXXSR12 Q14P1CXXSY12 Q14P1CXXG110 Q14P1CXXG12 Q14P1CXXR110 Q14P1CXXR12 Q14P1CXXY110 Q14P1CXXY12 Q14P7BXXSG12E Q14P7BXXSW12E Q14P1CZZRYG02E Q14P1CXXY24E Q14P1CXXG12E Q14P1CXXR12E Q14P1CXXG24E Q14P1CXXY12E Q14P1CZZRYG24E Q14P1CXXR24E Q14P1CZZRYG12E Q14F1BXXB110E Q14F1BXXB12E Q14F1BXXG110E Q14F1BXXG12E Q14F1BXXG24E Q14F1BXXR110E Q14F1BXXR12E Q14F1BXXR24E Q14F1BXXW110E Q14F1BXXW12E Q14F1BXXW24E Q14F1BXXY110E Q14F1BXXY12E Q14F1BXXY24E Q14F1CXXB110E Q14F1CXXB12E Q14F1CXXG110E Q14F1CXXG12E Q14F1CXXG24E Q14F1CXXR110E Q14F1CXXR12E Q14F1CXXR24E Q14F1CXXW110E Q14F1CXXW12E Q14F1CXXW24E Q14F1CXXY110E Q14F1CXXY12E Q14F1CXXY24E Q14P1BXXB110E Q14P1BXXB12E Q14P1BXXG110E Q14P1BXXG12E Q14P1BXXG24E Q14P1BXXR110E Q14P1BXXR12E Q14P1BXXR24E Q14P1BXXW110E Q14P1BXXW12E Q14P1BXXW24E Q14P1BXXY110E Q14P1BXXY12E Q14P1BXXY24E Q14P1BZZRYG12E Q14P1BZZRYG24E Q14P1CXXB110E Q14P1CXXB12E Q14P1CXXG110E Q14P1CXXR110E Q14P1CXXW110E Q14P1CXXW12E Q14P1CXXW24E Q14P1CXXY110E Q14F1BXXB24E Q14F1CXXB24E Q14P1BXXB24E Q14P1CXXB24E Q14F7CXXG12E Q14P1CKKR24E Q14P3CXXSR12E Q14P1GXXSY24E Q14P1CXXR28E Q14P1CXXG28E Q14F3CXXG12E Q14P1CXXB28E Q14F3BXXB24E Q14P3CXXG12E Q14F3BXXG24E Q14F3BXXG12E Q14F3BXXR24E Q14F3CXXR24E Q14P3BXXB12E Q14F3BZZRYG12E Q14P1CXXG06E Q14P1CXXG220E Q14P7CZZRYG02E Q14P1CXXG02E Q14P7CZZRYG06E Q14P3CZZRYG12E