QRM8 series

Ø8 mm rear panel mount LED indicators



DISTINCTIVE FEATURES

5 mm flush diffused LED, standard, hyper bright or water clear
Bi-color and tri-color LED options
200 mm wire or pin terminations



ENVIRONMENTAL SPECIFICATIONS

- IP67 sealing option (EN60529)
- Operating Temperature Range: -40 °C to +85 °C (–40 °F to +185 °F)
- Storage Temperature Range: -55 °C to +100 °C (-67 °F to +212 °F)

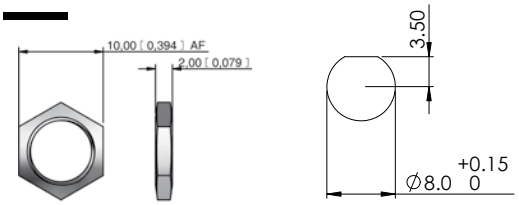
GENERAL SPECIFICATIONS

- Max Reverse Voltage: 5 V
- Viewing Angle: 60°
- Life Expectancy: 100,000 hours
- Max Panel Thickness: 3.5 mm
- Torque: 60 cNm
- Insulation resistance : 4,000 MΩ at 500 VDC
- Salt spray test: 96 hours (IEC 68-2-11)

MATERIALS

- Body: Black plated brass or anodized aluminum
- Lock Washer: Spring steel
- Nut: Black plated brass
- Terminal Seal: Epoxy
- Panel Seal: Nitrile O-ring
- Wires: 24 AWG to UL1061

MOUNTING



The company reserves the right to change specifications without notice.

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		
	MCD Output (all voltages)	Forward Voltage
HE Red	8 mcd	2.0 V
Green	6 mcd	2.2 V
Yellow	6 mcd	2.1 V
Blue	150 mcd	3.8 V
White	500 mcd	3.3 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	2.0 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		
	MCD Output (all voltages)	Forward Voltage
HE Red	1,300 mcd	2.2 V
Green	3,000 mcd	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		
	MCD Output (all voltages)	Forward Voltage
HE Red	980 mcd	2.2 V
Green	300 mcd	3.3 V
Yellow	250 mcd	2.0 V

Voltage	Operating Voltage (Min to Max)	Operating Current (Typical All Types)
02 (No Resistor)	1.8 to 3.8 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.

- The operating voltage must not be exceeded by more that 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.

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BUILD YOUR PART NUMBER

QRM _ _ _ _ _ _ _ _

SERIES

QRM

MOUNTING HOLE

8	Ø8 mm

TERMINALS

4	Pins
5	Wires

BEZEL FINISH

B	Black
AK	Anodized Dark Olive
AN	Anodized Black

TYPE OF ILLUMINATION

XX	Fixed Light
YY	Bi-color
ZZ	Tri-color

LED COLOR

R	Red
G	Green
Y	Yellow
B	Blue
W	White
HR	Hyper Bright Red
HG	Hyper Bright Green
HY	Hyper Bright Yellow
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

VOLTAGE

02	no resistor*
06	6 VDC
12	12 VDC
24	24 VDC
28	28 VDC

*** please refer to the forward voltage in electrical specifications**

SEALING

E	IP67 (Standard)

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 alternate voltages and multi-voltage options consult APEM.
- Bi-color LEDs, by connecting the gold Faston (+) one color is produced, by reversing the supply voltage another color is produced. Bi-color are available up to 28 VDC.
- Take care when soldering (recommended solder temperature 270 °C - 2 sec).
- The Tri-color LED has red and green LEDs when both are connected yellow is produced.
- Standard Tri-color termination is 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.

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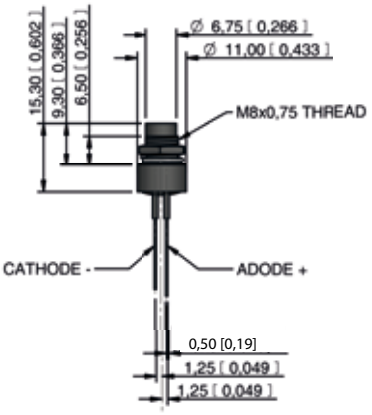
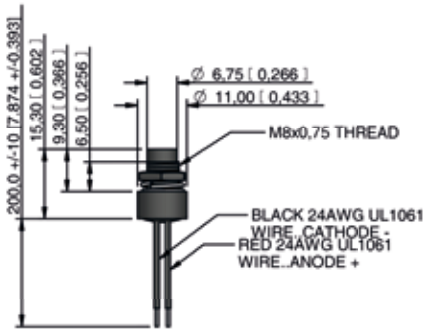
REAR MOUNT - PINS TERMINALS





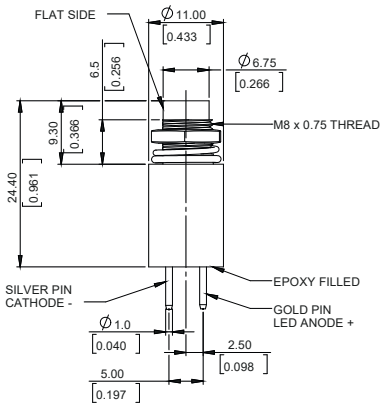
REAR MOUNT - WIRES TERMINALS





CUSTOM OPTIONS - FIXED AND BI-COLOR - LONG BODY - RIGID PINS

-X0245

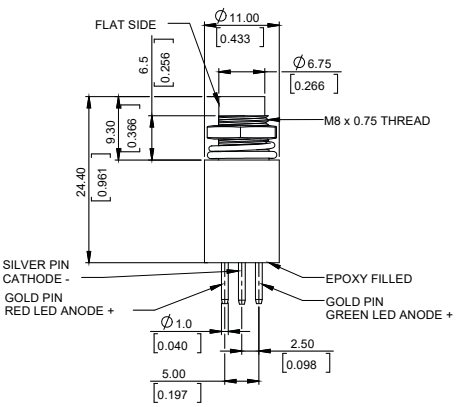


To apply the above custom option, suffix the part number with the -**X** reference number. **Example** / QRM84BXXHR24AE-**X0245**

CUSTOM OPTIONS - TRI-COLOR - LONG BODY - RIGID PCB TERMINALS



-X0246



To apply the above custom option, suffix the part number with the -**X** reference number. **Example** / QRM84BXXRYG24E-**XO246**

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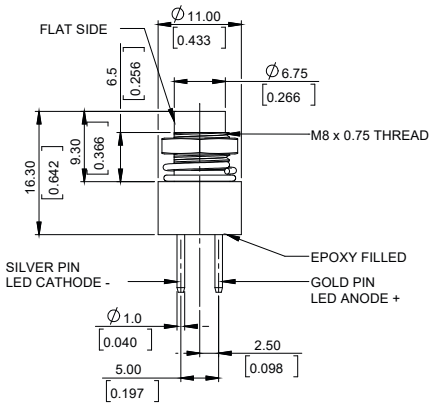
CUSTOM OPTIONS - FIXED AND BI-COLOR - STANDARD BODY - RIGID PINS

-X0259

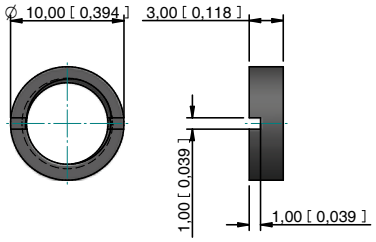


To apply the above custom option, suffix the part number with the -**X** reference number. **Example** / QRM84BXXHR24AE-**X0259**

HARDWARE - CYLINDRICAL DRESS NUTS - 8 MM - BLACK PLATED BRASS



P/N : AUK0001



HARDWARE - KNURLED DRESS NUTS - 8 MM - BLACK PLATED BRASS



P/N : AUK0002

