

# Q6 series

Ø6 mm panel mount LED indicators



## DISTINCTIVE FEATURES

3 mm colored diffused epoxy lens or 3 mm water clear super bright LEDs

Prominent, recessed and flush bezel styles

(2.0 x 0.5) solder lug terminals, pins or (200 mm long) wire terminations, other lengths available on request



## 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 7 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                            | 40 mcd                 | 10 mcd   | 2.0 V           |
| Green                             | 50 mcd                 | 12 mcd   | 2.2 V           |
| Yellow                            | 30 mcd                 | 6 mcd    | 2.1 V           |
| Blue                              | 1,200 mcd              | 100 mcd  | 3.8 V           |
| White                             | 1,200 mcd              | 160 mcd  | 3.8 V           |
| Orange                            | 60 mcd                 | 10 mcd   | 2.0 V           |
| Bi-color (Typical)<br>(Red/Green) | 20/15 mcd              | 10/8 mcd | 2.0 V/2.2 V     |

Bi-color - The color is changed by reversing the polarity of the supply voltage.

### SUPER BRIGHT LED INTENSITY

| LED COMPONENT SPECIFICATIONS |                        |           |                 |
|------------------------------|------------------------|-----------|-----------------|
|                              | Prominent and Recessed | Flush     | Forward Voltage |
| HE Red                       | 1,000 mcd              | 700 mcd   | 2.2 V           |
| Green                        | 1,200 mcd              | 2,000 mcd | 3.5 V           |
| Yellow                       | 2,000 mcd              | 8,000 mcd | 2.3 V           |
| Blue                         | 1,600 mcd              | 200 mcd   | 3.3 V           |
| White                        | 1,200 mcd              | 350 mcd   | 3.3 V           |
| Orange                       | 10,000 mcd             | 500 mcd   | 2.2 V           |

### HYPER BRIGHT LED INTENSITY

| LED COMPONENT SPECIFICATIONS |                        |         |                 |
|------------------------------|------------------------|---------|-----------------|
|                              | Prominent and Recessed | Flush   | Forward Voltage |
| HE Red                       | 3,700 mcd              | 600 mcd | 2.2 V           |
| Green                        | 2,000 mcd              | 350 mcd | 3.2 V           |
| Yellow                       | 1,200 mcd              | 140 mcd | 2.0 V           |
| Orange                       | 4,500 mcd              | 400 mcd | 2.2 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 | 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.



### BUILD YOUR PART NUMBER

|   |   |   |  |   |
|---|---|---|--|---|
| <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">Q</div> <p>SERIES</p>  | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">6</div> <p>MOUNTING HOLE</p> <p>Ø6 mm</p>  | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">P</div> <p>BEZEL STYLE</p> <ul style="list-style-type: none"> <li><b>P</b> Prominent</li> <li><b>R</b> Recessed</li> <li><b>F</b> Flush</li> </ul>   | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">1</div> <p>TERMINALS</p> <ul style="list-style-type: none"> <li><b>1</b> Solder Lug/<br/>Fastons (2.0 x 0.5)</li> <li><b>2</b> Pins</li> <li><b>3</b> Wires</li> </ul>  | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">4</div> <p>BEZEL FINISH</p> <ul style="list-style-type: none"> <li><b>C</b> Bright Chrome</li> <li><b>B</b> Black Chrome</li> <li><b>G</b> Satin Grey</li> </ul> |
| <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">XX</div> <p>TYPE OF ILLUMINATION</p> <ul style="list-style-type: none"> <li><b>XX</b> Fixed Light</li> <li><b>KK</b> Flashing Light<br/>(12 V – 28 VDC)</li> <li><b>YY</b> Bi-color</li> </ul> | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">R</div> <p>LED COLOR</p> <ul style="list-style-type: none"> <li><b>R</b> Red</li> <li><b>G</b> Green</li> <li><b>Y</b> Yellow</li> <li><b>B</b> Blue</li> <li><b>W</b> White</li> <li><b>O</b> Orange</li> <li><b>HR</b> Hyper Bright Red</li> <li><b>HG</b> Hyper Bright Green</li> <li><b>HY</b> Hyper Bright Yellow</li> <li><b>HO</b> Hyper Bright Orange</li> </ul> | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">SR</div> <p>VOLTAGE</p> <ul style="list-style-type: none"> <li><b>SR</b> Super Bright Red</li> <li><b>SG</b> Super Bright Green</li> <li><b>SY</b> Super Bright Yellow</li> <li><b>SB</b> Super Bright Blue</li> <li><b>SW</b> Super Bright White</li> <li><b>SO</b> Super Bright Orange</li> <li><b>RG</b> Red/Green</li> <li><b>RY</b> Red/Yellow</li> <li><b>GY</b> Green/Yellow</li> </ul> | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">02</div> <p>SEALING</p> <ul style="list-style-type: none"> <li><b>02</b> no resistor*</li> <li><b>06</b> 6V DC</li> <li><b>12</b> 12 VDC</li> <li><b>12A</b> 12 VAC/DC</li> <li><b>24</b> 24 VDC</li> <li><b>24A</b> 24 VAC/DC</li> <li><b>28</b> 28 VDC</li> <li><b>28A</b> 28 VAC/DC</li> </ul> <p>* please refer to the forward voltage in electrical specifications</p> | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">(Blank)</div> <p>SEALING</p> <ul style="list-style-type: none"> <li><b>(Blank)</b> Unsealed</li> <li><b>E</b> IP67</li> </ul>                                    |



### 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, 24 AWG UL1061, 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 solder lug (+) one color is produced, by reversing the supply voltage another color is produced – bi-colors are available up to 28 V in DC only.
  - Take care when soldering to the faston terminals (recommended solder temperature 300 °C - 3 sec)
  - Short body options are only available up to 24 VDC.

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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



### SOLDER LUG/FASTON



### WIRES



### PINS



### REAR EPOXY WIRES



### REAR EPOXY PINS



### SHORT BODY WIRES



### 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

