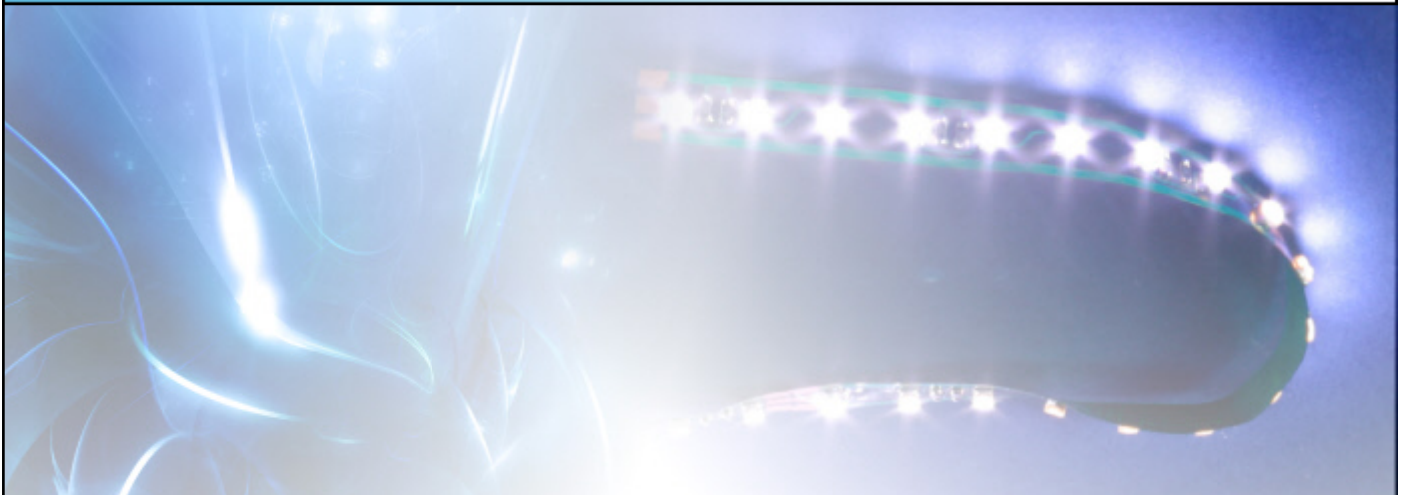
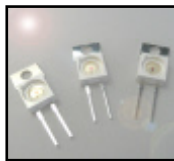
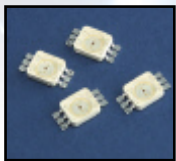




The Optoelectronic Manufacturing Corporation



## IP67 LED Module Series



[www.omc-uk.com](http://www.omc-uk.com)



## Technical Datasheet

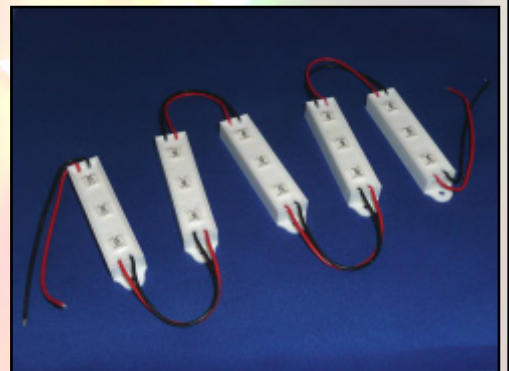
A range of high performance, IP67 rated, screw-mountable 12V LED modules, providing an easy and cost-effective solution for the application of LED lighting to industrial, architectural, signage and many other illumination and lighting applications.

### Key Features:

- Very easy to use and cost-effective
- IP67 rated, suitable for exterior use
- Energy efficient, 12V DC operation
- High light output, wide beam angle
- Low power consumption (<0.25W per module)
- Output characterised for lighting applications
- Supplied in joined strings of 5 modules
- Individual modules can be snipped from string
- Strings can be joined to form long runs
- Built-in reverse polarity and electrostatic protection
- 4-pin LEDs for added physical resilience
- Screw-mountable
- Up to 50m can be powered from one end
- Low cost LED lighting solution
- RoHS Compliant

### Typical Applications:

- Replacement of fluorescent light sources
- Built-up and flat-cut letter illumination
- Light box illumination
- Accent lighting
- Backlighting
- Battery and solar-powered lighting
- Exterior and interior decorative lighting
- Lighting for machinery
- Furniture illumination
- Long-life alternative to neon
- Low energy lighting
- Lighting for point-of-sale applications
- Simple and cost-effective LED lighting for almost any application





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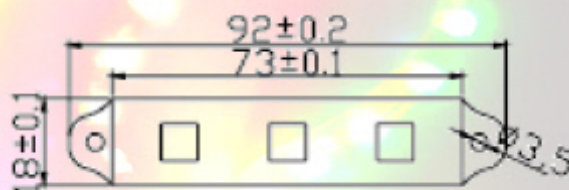
**Typical electro-optical characteristics at applied voltage = 12V DC and Ta=25°C**

| Part no. | LEDs per Module       | Light output per String | Beam angle 2θ <sup>1/2</sup> | LEDs per string |
|----------|-----------------------|-------------------------|------------------------------|-----------------|
| LMMW1    | 3 x Ultrabright White | 40 lumens               | 120°                         | 15              |
| LMMR1    | 3 x Ultrabright Red   | 14 lumens               | 120°                         | 15              |
| LMMG1    | 3 x Ultrabright Green | 37 lumens               | 120°                         | 15              |
| LMMB1    | 3 x Ultrabright Blue  | 12 lumens               | 120°                         | 15              |
| LMMY1    | 3 x Ultrabright Amber | 30 lumens               | 120°                         | 15              |

Colours are for ease of reference only and do not indicate exact shade of LED output.

## Mechanical information

- ♦ Module length 92mm
- ♦ Module width 18mm
- ♦ Module height 11.5mm
- ♦ 3 LEDs per module
- ♦ 5 Modules per String
- ♦ Length of joining wires 100mm



## Absolute maximum ratings (Ta=25°C where applicable)

| Quantity                     | Rating          |
|------------------------------|-----------------|
| Module Applied Voltage       | 12V DC          |
| LED Reverse Voltage          | 5V              |
| Operating Temperature Range  | -35°C to +65°C  |
| LED Forward Current          | 20mA            |
| Temperature Range in Storage | -35°C to +100°C |
| Module Forward DC Current    | 20mA            |

All specifications correct at time of publishing.

In the interests of continual improvement, OMC reserve the right to alter specifications without notice.



## Application notes

- ♦ Do not apply voltages greater than 12V DC to this product or damage may occur.
- ♦ Although electrostatic protection is built into this product, as with any semiconductor device it is recommended to avoid unnecessary electrostatic discharge.
- ♦ Connect supply anode to red wire, supply cathode to black wire
- ♦ To link strings, connect red wire to red wire, black wire to black wire
- ♦ Joining of strings can be achieved either through soldering, fitting connectors, or simply through the use of standard electrical screw terminals.
- ♦ For exterior joins between strings, please ensure that the join has been waterproofed e.g. through the use of conformal coating, silicone sealant, a waterproof connector or waterproof sleeving.
- ♦ For series lengths greater than 50 strings, wiring in a "ring main" style configuration (i.e. a power feed at each end) is recommended to reduce voltage drop. For longer runs it is recommended to connect a power feed back to the supply after every 100 strings.
- ♦ Use of a regulated 12V DC supply is recommended.
- ♦ Module ingress protection rating is IP67 making them suitable for exterior use. Modules are not designed to be submersible for extended periods or in water deeper than 1m.

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