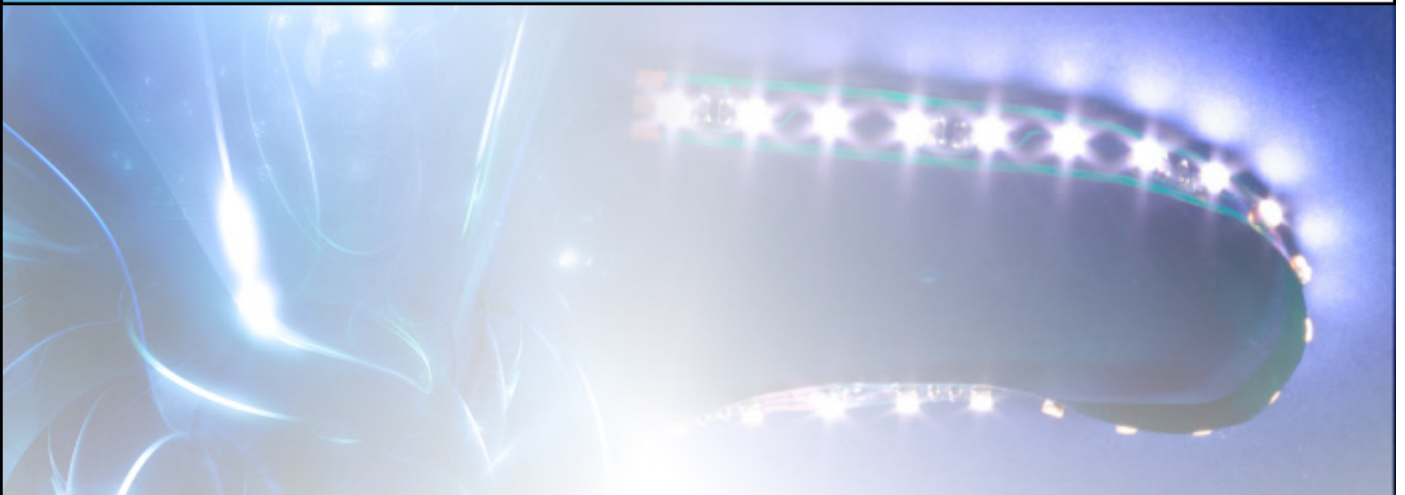
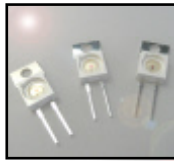
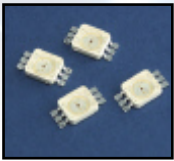




The Optoelectronic Manufacturing Corporation



## IP67 LED Module Series





## Technical Datasheet

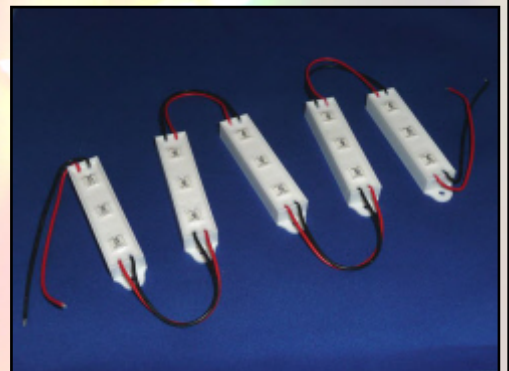
A range of high performance, IP67 rated, screw-mountable 12V LED modules, providing an easy and cost-effective solution for the application of LED lighting to industrial, architectural, signage and many other illumination and lighting applications.

### 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





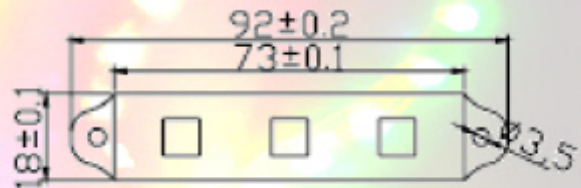
## Typical electro-optical characteristics at applied voltage = 12V DC and Ta=25°C

Part no.	LEDs per Module	Light output per String	Beam angle 2θ½	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



## 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.

## **The Optoelectronic Manufacturing Corporation (UK) Ltd.**

Cardrew Industrial Estate,  
Redruth,  
Cornwall  
TR15 1SS

Tel: 01209 215424

Fax: 01209 215197

General e-mail: [omc-sales@omc-uk.com](mailto:omc-sales@omc-uk.com)

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