

PROFESSIONAL LED INDICATORS Ø12.7mm Mounting

FEATURES



**511 SERIES**

PACK QUANTITY = 10 PIECES

- Robust bright nickel plated brass housing
- Sealed to IP67
- Flying lead terminations available
- Suitable for high vibration applications
- Internal reverse protection diode fitted as standard in all voltage models.

SPECIFICATION

Ordering Information & Typical Technical Characteristics (Ta = 25°C)

Mean Time Between Failure = 100,000 Hours. Luminous intensity figures refer to the unmodified discrete LED.

| PART NUMBER           | COLOUR     | LENS | VOLTAGE DC (Vdc) Vopr | CURRENT DC (mA) Iopr | LUMINOUS INTENSITY Iv@20mA (mcd) | WAVE LENGTH λp (nm) | OPERATING TEMP Topr | STORAGE TEMP Tstg      |            |     |
|-----------------------|------------|------|-----------------------|----------------------|----------------------------------|---------------------|---------------------|------------------------|------------|-----|
| <b>HIGH INTENSITY</b> |            |      |                       |                      |                                  |                     |                     |                        |            |     |
| 511-501-21            | Red        |      | Colour Diffused       | 12                   | 19                               | 11000               | 643                 | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| 511-521-21            | Yellow     |      | Colour Diffused       | 12                   | 19                               | 16000               | 591                 | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| 511-532-21            | Green      |      | Colour Diffused       | 12                   | 20                               | 23000               | 527                 | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| 511-930-21            | Blue       |      | Colour Diffused       | 12                   | 20                               | 7000                | 470                 | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| 511-997-21            | Cool White |      | Colour Diffused       | 12                   | 20                               | 14000               | see below           | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| 511-501-23            | Red        |      | Colour Diffused       | 24-28                | 20                               | 11000               | 643                 | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| 511-521-23            | Yellow     |      | Colour Diffused       | 24-28                | 20                               | 16000               | 591                 | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| 511-532-23            | Green      |      | Colour Diffused       | 24-28                | 20                               | 23000               | 527                 | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| 511-930-23            | Blue       |      | Colour Diffused       | 24-28                | 20                               | 7000                | 470                 | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| 511-997-23            | Cool White |      | Colour Diffused       | 24-28                | 20                               | 14000               | see below           | -40 ~ +95 <sup>^</sup> | -40 ~ +100 | Yes |
| <b>UNITS</b>          |            |      | <b>Vdc</b>            | <b>mA</b>            | <b>mcd</b>                       | <b>nm</b>           | <b>°C</b>           | <b>°C</b>              |            |     |



Other voltages AC/DC available. Please contact our Technical Sales.

<sup>^</sup> = Products must be derated according to the derating information. Each derating graph refers to specific LEDs.

| 997F-C | *Typical emission colour cool white |       |       |       |
|--------|-------------------------------------|-------|-------|-------|
| x      | 0.245                               | 0.361 | 0.356 | 0.264 |
| y      | 0.229                               | 0.385 | 0.351 | 0.220 |

Intensities (Iv) and colour shades of white (x,y co-ordinates) may vary between LEDs within a batch.

How to Order:

website: [www.marl.co.uk](http://www.marl.co.uk) • email: [sales@marl.co.uk](mailto:sales@marl.co.uk) •

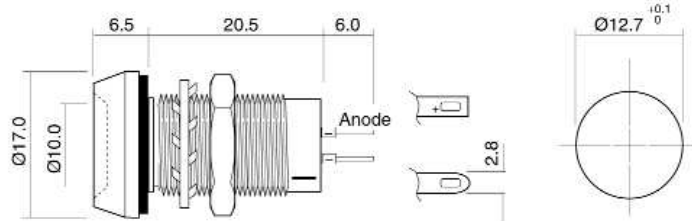
• Telephone +44 (0)1229 582430 • Fax: +44 (0)1229 585155

The information contained in this datasheet does not constitute part of any order or contract and should not be regarded as a representation relating to either products or service. Marl International reserve the right to alter without notice the specification or any conditions of supply for products or service.



BS EN ISO 9001:2000  
Approved Manufacturer

### 511 Series



Mounting Hole

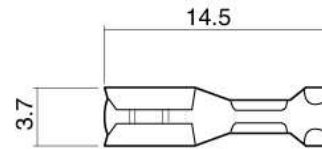
Dimensions in mm (Typical)  
Not to scale

Anode termination indicated by red sleeve  
Mounting hole to be clean and burr free

#### MATERIALS

#### PUSH-ON CONNECTORS

|               |   |
|---------------|---|
| Body          | Brass to BS 2874 CZ121<br>Nickel plated to BS 1224                        |
| Nut           | Brass to BS 2874 CZ121<br>nickel plated to BS 1224                        |
| Panel Seal    | Viton   |
| Termination   | Brass to BS 2874 CZ108<br>Copper flash undercoat with silver flash finish |
| Lock Washer   | Zinc plated steel   |
| Fresnel lens  | Polycarbonate   |
| Encapsulation | PC5430 resin  |



925-000-00 is brass tin plated.  
For use with 511 series lamps.

Dimensions in mm (Typical)  
Not to scale

#### TECHNICAL CHARACTERISTICS

| SERIES | MAXIMUM POWER DISSIPATION | MAXIMUM REVERSE VOLTAGE | PANEL CUTOUT | NUT MOUNTING TORQUE | MINIMUM MOUNTING CENTRES | MIN/MAX. PANEL THICKNESS |
|--------|---------------------------|-------------------------|--------------|---------------------|--------------------------|--------------------------|
| 511    | 1000                      | 1000                    | 12.7         | 1.0                 | x,y=19.5                 | 1.5-8.0                  |
|        | mw                        | Vdc                     | mm           | Nm                  | mm                       | mm                       |

\* = current version

• = voltage version

#### OPTIONAL FLYING LEAD TERMINATIONS

| ORDER CODE SUFFIX | SUPPLY VOLTAGE | WIRE COLOUR               | WIRE LENGTH | NO/DIAMETER OF CONDUCTORS | DIAMETER OVER INSULATION | COMMENTS                     |
|-------------------|----------------|---------------------------|-------------|---------------------------|--------------------------|------------------------------|
| 15                | DC Products    | Red-anode / Black-cathode | 150mm       | 19/0.15mm                 | 1.2mm                    | Customised lengths available |
| 15                | AC Products    | Brown-live / Blue-neutral | 150mm       |                           |                          |                              |
| 19                | DC Products    | Red-anode / Black-cathode | 1000mm      |                           |                          |                              |
| 19                | AC Products    | Brown-live / Blue-neutral | 1000mm      |                           |                          |                              |

website: [www.marl.co.uk](http://www.marl.co.uk) • email: [sales@marl.co.uk](mailto:sales@marl.co.uk) •

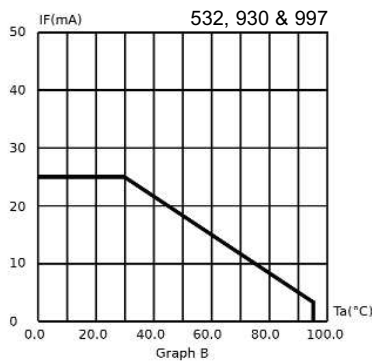
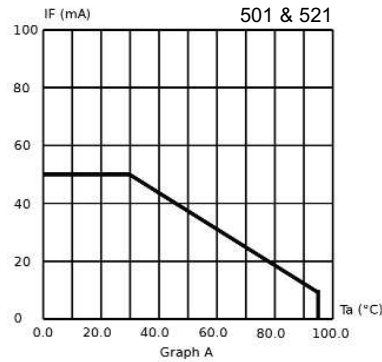
• Telephone +44 (0)1229 582430 • Fax: +44 (0)1229 585155

The information contained in this datasheet does not constitute part of any order or contract and should not be regarded as a representation relating to either products or service. Marl International reserve the right to alter without notice the specification or any conditions of supply for products or service.



BS EN ISO 9001:2000  
Approved Manufacturer

## DERATING INFORMATION



## ALSO AVAILABLE

Part numbers also available in the 511 Series:

| PART NO.      | COLOUR | VOLTAGE DC (Vdc) Vopr |
|---------------|--------|-----------------------|
| 511-501-04    | Red    | 20mA                  |
| 511-501-04-15 | Red    | 20mA                  |
| 511-501-13    | Red    | 20mA DC RP            |
| 511-501-22    | Red    | 24 Vdc                |
| 511-501-22-15 | Red    | 24 Vdc                |
| 511-501-22-19 | Red    | 24 Vdc                |
| 511-501-24    | Red    | 48 Vdc                |
| 511-501-25    | Red    | 110 Vdc               |
| 511-501-41    | Red    | 8 Vdc                 |
| 511-501-48    | Red    | 60 Vdc                |
| 511-501-53    | Red    | 50 Vdc                |
| 511-501-72    | Red    | 24 Vac                |
| 511-501-75    | Red    | 110 Vac               |
| 511-501-75-13 | Red    | 110 Vac               |
| 511-501-75-15 | Red    | 110 Vac               |
| 511-501-76    | Red    | 230 Vac               |
| 511-501-76-15 | Red    | 230 Vac               |
| 511-503-22    | Red    | 24 Vdc                |
| 511-503-23    | Red    | 28 Vdc                |
| 511-503-72    | Red    | 24 Vac                |
| 511-503-75    | Red    | 110 Vac               |
| 511-503-76-15 | Red    | 230 Vac               |
| 511-509-22    | Yellow | 24 Vdc                |
| 511-509-24    | Yellow | 48 Vdc                |
| 511-509-55    | Yellow | 130 Vdc               |
| 511-509-72    | Yellow | 24 Vac                |
| 511-509-75    | Yellow | 110 Vac               |
| 511-509-76-15 | Yellow | 230 Vac               |
| 511-512-22    | Green  | 24 Vdc                |
| UNITS         |        |                       |

| PART NO.      | COLOUR | VOLTAGE DC (Vdc) Vopr |
|---------------|--------|-----------------------|
| 511-512-23    | Green  | 28 Vdc                |
| 511-512-25    | Green  | 110 Vdc               |
| 511-512-72    | Green  | 24 Vac                |
| 511-512-75    | Green  | 110 Vac               |
| 511-512-76-15 | Green  | 230 Vac               |
| 511-521-04    | Yellow | 20mA                  |
| 511-521-04-15 | Yellow | 20mA                  |
| 511-521-22    | Yellow | 24 Vdc                |
| 511-521-22-15 | Yellow | 24 Vdc                |
| 511-521-24    | Yellow | 48 Vdc                |
| 511-521-41    | Yellow | 8 Vdc                 |
| 511-521-48    | Yellow | 60 Vdc                |
| 511-521-72    | Yellow | 24 Vac                |
| 511-521-75    | Yellow | 110 Vac               |
| 511-521-75-15 | Yellow | 110 Vac               |
| 511-521-76-15 | Yellow | 230 Vac               |
| 511-523-22    | Red    | 24 Vdc                |
| 511-532-04    | Green  | 20mA                  |
| 511-532-04-15 | Green  | 20mA                  |
| 511-532-22    | Green  | 24 Vdc                |
| 511-532-22-15 | Green  | 24 Vdc                |
| 511-532-23-51 | Green  | 28 Vdc                |
| 511-532-24    | Green  | 48 Vdc                |
| 511-532-25    | Green  | 110 Vdc               |
| 511-532-25-11 | Green  | 10mA                  |
| 511-532-26-15 | Green  | 230 Vdc               |
| 511-532-41    | Green  | 8 Vdc                 |
| 511-532-46    | Green  | 35 Vdc                |
| 511-532-46-50 | Green  | 60 Vdc                |
| UNITS         |        |                       |

| PART NO.      | COLOUR | VOLTAGE DC (Vdc) Vopr |
|---------------|--------|-----------------------|
| 511-532-48    | Green  | 60 Vdc                |
| 511-532-72    | Green  | 24 Vac                |
| 511-532-75    | Green  | 110 Vac               |
| 511-532-76-15 | Green  | 230 Vac               |
| 511-532-77-15 | Green  | 125 Vac               |
| 511-582-20-50 | Yellow | 5/6 Vdc               |
| 511-805-22    | Red    | 24 Vdc                |
| 511-811-22    | Yellow | 24 Vdc                |
| 511-814-22    | Green  | 24 Vdc                |
| 511-930-22    | Blue   | 24 vdc                |
| 511-930-22-15 | Blue   | 24 Vdc                |
| 511-930-24    | Blue   | 48 Vdc                |
| 511-930-25    | Blue   | 110 Vdc               |
| 511-930-48    | Blue   | 60 Vdc                |
| 511-997-04-50 | White  | 20mA                  |
| 511-997-22    | White  | 24 Vdc                |
| 511-997-22-15 | White  | 24 Vdc                |
| 511-997-24    | White  | 48 Vdc                |
| 511-997-25    | White  | 110 Vdc               |
| 511-997-48    | White  | 60 Vdc                |
| 511-997-53    | White  | 50 Vdc                |
| 511-997-75    | White  | 110 Vac               |
| 511-997-75-15 | White  | 110 Vac               |
| 511-997-76-15 | White  | 230 Vac               |
| UNITS         |        |                       |

The products listed above illustrate all of the options available to order. These products may have custom modifications that alter their operation beyond the generic information contained within this datasheet. Please contact sales for further information.

website: [www.marl.co.uk](http://www.marl.co.uk) • email: [sales@marl.co.uk](mailto:sales@marl.co.uk) •

• Telephone +44 (0)1229 582430 • Fax: +44 (0)1229 585155

The information contained in this datasheet does not constitute part of any order or contract and should not be regarded as a representation relating to either products or service. Marl International reserve the right to alter without notice the specification or any conditions of supply for products or service.



BS EN ISO 9001:2000  
Approved Manufacturer