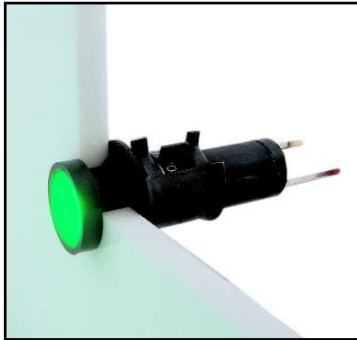


PANEL INDICATOR LEDs - Ø6.35mm Mounting

## FEATURES



### 315 SERIES

PACK QUANTITY = 20 PIECES

- Low profile lens styling
- Flying lead terminations and low current versions available
- Sealed to IP40
- Supplied complete with mounting hardware
- Product illustrated 315-532-21

## SPECIFICATIONS

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

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

PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY Iv@20mA	WAVE LENGTH λp	OPERATING TEMP Topr	STORAGE TEMP Tstg	
<b>STANDARD INTENSITY</b>									
315-505-21	Red	Colour Diffused	12	20	60	627	-40 ~ +85 <sup>^</sup>	-40 ~ +85	Yes
315-506-21	Orange	Colour Diffused	12	20	160	607	-40 ~ +85 <sup>^</sup>	-40 ~ +85	Yes
315-511-21	Yellow	Colour Diffused	12	21	40	590	-40 ~ +85 <sup>^</sup>	-40 ~ +85	Yes
315-512-21	Green	Colour Diffused	12	20	120	565	-40 ~ +85 <sup>^</sup>	-40 ~ +85	Yes
<b>HIGH INTENSITY</b>									
315-501-21	Red	Colour Diffused	12	20	2700	660	-40 ~ +85 <sup>^</sup>	-40 ~ +85	Yes
315-521-21	Yellow	Colour Diffused	12	20	6100	595	-40 ~ +85 <sup>^</sup>	-40 ~ +100	Yes
315-532-21	Green	Colour Diffused	12	20	11600	525	-30 ~ +85 <sup>^</sup>	-40 ~ +100	Yes
315-930-21	Blue	Colour Diffused	12	20	3460	470	-30 ~ +85 <sup>^</sup>	-40 ~ +100	Yes
315-997-21	Cold White	Colour Diffused	12	20	7800	*see below	-30 ~ +85 <sup>^</sup>	-40 ~ +100	Yes
315-501-23	Red	Colour Diffused	24-28	20	2700	660	-40 ~ +85 <sup>^</sup>	-40 ~ +85	Yes
315-521-23	Yellow	Colour Diffused	24-28	20	6100	595	-40 ~ +85 <sup>^</sup>	-40 ~ +100	Yes
315-532-23	Green	Colour Diffused	24-28	20	11600	525	-30 ~ +85 <sup>^</sup>	-40 ~ +100	Yes
315-930-23	Blue	Colour Diffused	24-28	20	3460	470	-30 ~ +85 <sup>^</sup>	-40 ~ +100	Yes
315-997-23	Cold White	Colour Diffused	24-28	20	7800	*see below	-30 ~ +85 <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>	



997	*Typical emission colour cold white			
x	0.296	0.283	0.330	0.330
y	0.276	0.305	0.360	0.318

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

<sup>^</sup> = Products must be derated according to the derating information. Each derating graph refers to specific LEDs. Appropriate LED numbers shown. Refer to page 3.

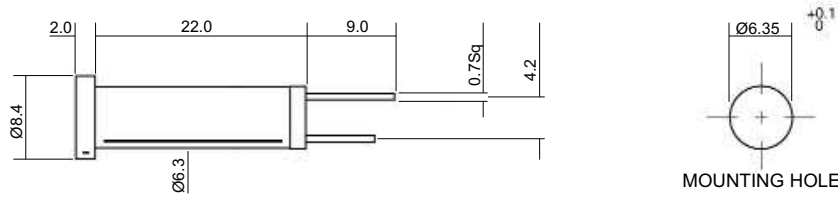
### How to Order:

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.

### 315 Series



Dimensions in mm (Typical)  
Not to scale

Anode termination indicated by long tag.

#### MATERIALS

#### PUSH-ON CONNECTORS

Body	Nylon 6	909-000-00 is gold plated 910-000-00 is tin plated for use with 315 series.  Suitable for wire sizes from 0.15mm <sup>2</sup> to 0.38mm <sup>2</sup> cross sectional area.  Dual metal contact design provides low resistance and gas tight electrical contact.	<p>Dimensions in mm (Typical) Not to scale</p>
Panel Washer	Neoprene		
Termination Pins	Tin on Nickel Plated Phosphor Bronze		
Retaining Clip	Spring steel		
Fresnel lens	Polycarbonate		
Header	PTFE		

#### TECHNICAL CHARACTERISTICS

SERIES	MAXIMUM POWER DISSIPATION	MAXIMUM REVERSE VOLTAGE	PANEL CUTOUT	MINIMUM MOUNTING CENTRES	MIN/MAX. PANEL THICKNESS
315	500	3	6.35	13.0	9.0
UNITS	mW	Vdc	mm	mm	mm

#### OPTIONAL FLYING LEAD TERMINATIONS

ORDER CODE SUFFIX	SUPPLY VOLTAGE	WIRE COLOUR	WIRE LENGTH	NO/DIAMETER OF CONDUCTORS	DIAMETER OVER INSULATION	COMMENTS
13	DC Products	Red-anode / Black-cathode	150mm	7/0.2mm	1.2mm	Customised lengths available
13	AC Products	Brown-live / Blue-neutral	150mm			
17	DC Products	Red-anode / Black-cathode	1000mm			
17	AC Products	Brown-live / Blue-neutral	1000mm			

#### PROTECTION DIODE

ORDER CODE SUFFIX	CIRCUIT	COMMENTS
01		Available on all indicators except Bi-Colour devices and when diode test is specified.

#### 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.

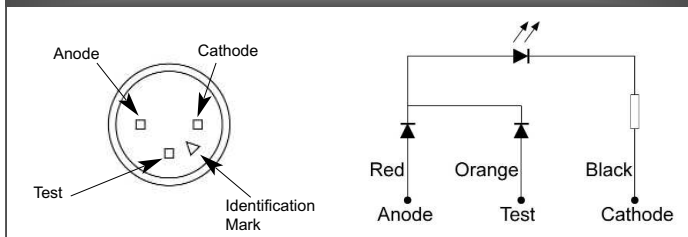


BS EN ISO 9001:2000  
Approved Manufacturer

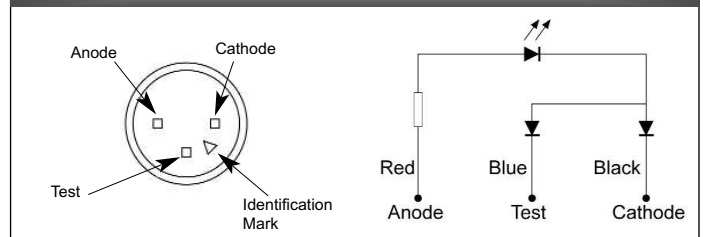
## Diode Test Facility

ORDER CODE SUFFIX	TERMINATION	CIRCUIT	COMMENTS
<b>03</b> <b>05</b> <b>09</b>	3 PINS 150mm of flying leads colours as shown 1000mm of flying leads colours as shown	TEST POSITIVE	Not available with Bi-colour LED
<b>04</b> <b>06</b> <b>10</b>	3 PINS 150mm of flying leads colours as shown 1000mm of flying leads colours as shown	TEST NEGATIVE	

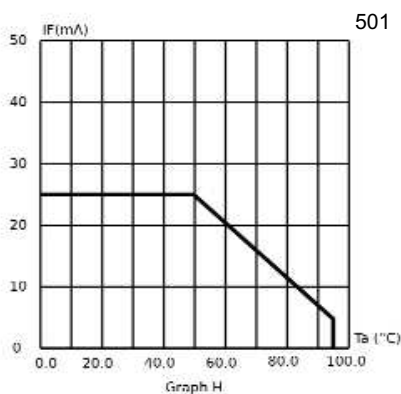
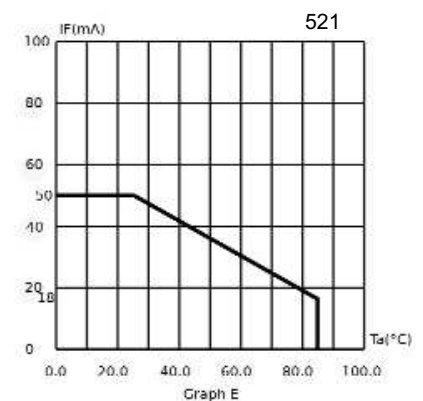
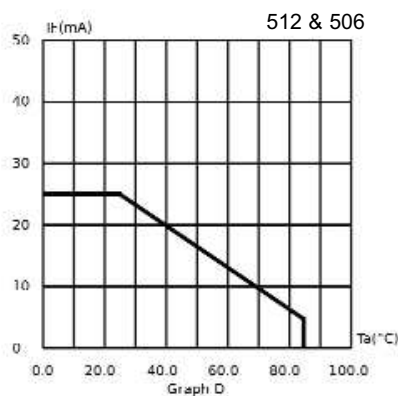
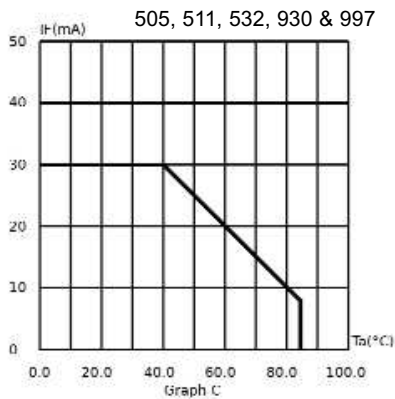
### Test Positive



### Test Negative



## De-rating Information



### 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

## ALSO AVAILABLE

Part numbers also available in the 315 Series:

PART NO.	COLOUR	VOLTAGE (Vdc) Vopr
315-501-04	Red	20mA
315-501-20-13	Red	5/6Vdc
315-501-22	Red	24Vdc
315-501-71	Red	12Vac
315-501-72	Red	24Vac
315-501-73	Red	28Vac
315-501-79	Red	30Vac
315-502-22	Red	24Vdc
315-502-72	Red	24Vac
315-502-75	Red	110Vac
315-503-20-50	Red	5/6Vdc
315-503-21	Red	12Vdc
315-503-22	Red	24Vdc
315-503-22-02	Red	24Vdc
315-505-04	Red	20mA
315-505-22	Red	24Vdc
315-505-22-03	Red	24Vdc
315-505-72	Red	24Vac
315-506-22	Orange	24Vdc
315-509-24-03	Yellow	48Vdc
315-509-25	Yellow	110Vdc
315-511-04	Yellow	20mA
315-511-22	Yellow	24Vdc
315-511-72	Yellow	24Vac
UNITS		

PART NO.	COLOUR	VOLTAGE (Vdc) Vopr
315-512-04	Green	20mA
315-512-20	Green	5/6Vdc
315-512-22	Green	24Vdc
315-512-22-03	Green	24Vdc
315-512-72	Green	24Vac
315-512-75	Green	110Vac
315-512-76-15	Green	230Vac
315-512-76-19	Green	230Vac
315-521-04	Yellow	20mA
315-521-22	Yellow	24Vdc
315-521-71	Yellow	12Vac
315-532-04	Green	20mA
315-532-20-13	Green	5/6Vdc
315-532-22	Green	24Vdc
315-532-72	Green	24Vac
315-930-04	Blue	20mA
315-930-22	Blue	24Vdc
315-930-25	Blue	110Vdc
315-997-04	White	20mA
315-997-21-50	White	12Vdc
315-997-22	White	24Vdc
315-997-72	White	24Vac
315-997-73	White	28Vac
315-997-79	White	30Vac
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.

### 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