MARL

538 SERIES
PANEL INDICATOR LED



FEATURES

- Ø12.7mm mounting
- Stainless steel housing
- Sealed to IP67 - weatherproof
- Coloured diffused lens
- Internal potting
- Bi-polar circuitry
- Range of LED colour options
- Range of voltage options

BENEFITS

- Standard industrial mounting size
- Suitable for harsh environments
- Suitable for external applications
- Diffused lens gives wide viewing angle
- Suitable for high vibration applications
- Suitable for AC or low voltage DC in any orientation
- Suitable for status panel indication
- Manufactured with internal resistor
- Outstanding reliability
- Vandal resistant

Marl Part Number	LED Colour	Typical Voltage Vopr	Typical Current DC Iopr	Typical LED Luminous Intensity	Typical LED Wavelength λp	Operating Temp Topr *	Storage Temp Tstg
538-501-63	Red	12-28 Vac/dc	6-16	236 @ 10mA	625	-40 to +75	-40 to +100
538-521-63	Yellow	12-28 Vac/dc	6-16	217 @ 10mA	590	-40 to +75	-40 to +100
538-532-63	Green	12-28 Vac/dc	6-16	1360 @ 10mA	520	-40 to +75	-40 to +100
538-930-63	Blue	12-28 Vac/dc	6-16	270 @ 10mA	470	-40 to +75	-40 to +100
538-997-63	Cool White	12-28 Vac/dc	6-16	743 @ 10mA	See Below	-40 to +75	-40 to +100
538-501-75	Red	110 Vac	7	112	625	-40 to +75	-40 to +100
538-521-75	Yellow	110 Vac	7	103	590	-40 to +75	-40 to +100
538-532-75	Green	110 Vac	7	814	520	-40 to +75	-40 to +100
538-930-75	Blue	110 Vac	7	154	470	-40 to +75	-40 to +100
538-997-75	Cool White	110 Vac	7	393	See Below	-40 to +75	-40 to +100
		Bi-polar	mA	mcd	nm	°C	°C

Typical Emission Colours Cool White LED			
X	0.275	0.28	0.29
Y	0.27	0.28	0.30

NOTES

Intensities (Iv) and colour shades of white (X-Y co-ordinates) may vary between LEDs within a batch. Additional LED Colours, Voltage Options and Flying Lead lengths available for semi-custom projects. Please contact our Sales Team. All LED components are supplied in anti-static packaging.
* For operating temperature derating graphs, please refer to sheet 2.

bsi. ISO 9001 Quality Management Q 05480 RoHs 2002/95/EC CE

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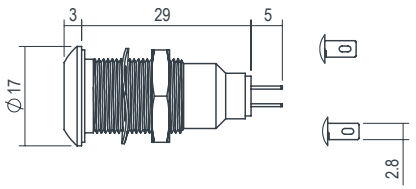
TECHNICAL CHARACTERISTICS

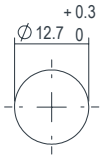
Series	Max. Power Dissipation	Panel Cutout	Nut Mounting Torque	Min. Mounting Centres	Min. - Max. Panel Thickness
538	825	12.7	1.0	26.0	2.0 - 10.0
	mW	mm	Nm	mm	mm

TECHNICAL DRAWING

Weight (g): 8.6
Dimensions in mm (typical). Not to scale. Mounting hole to be clean and burr free.

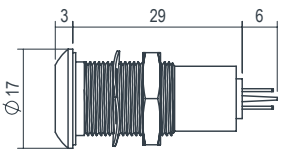
Below 50Vac/dc



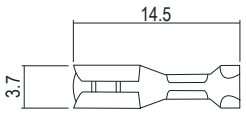


Mounting Hole

Above 50Vac/dc



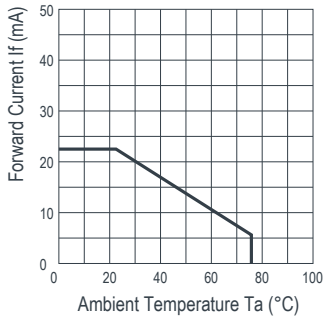
PUSH ON CONNECTOR



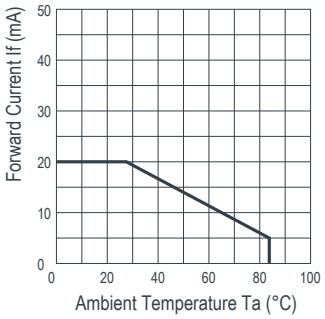
925-000-00 is brass tin plated - for use with 538 series lamps. Dimensions in mm (typical). Not to scale.

DE-RATING GRAPHS

Red / Green / Blue / Cool White LED



Yellow LED



MATERIALS

Body	Stainless Steel Grade 303
Nut	Stainless Steel Grade 303
Panel Seal	Viton
Lens	Polycarbonate
Encapsulation	Black Polyurethane
Lock Washer	Stainless Steel
Termination	Silver Flash Coated Brass
Header	Nylon 66 A82

DESIGN CONSIDERATIONS

Electro-Static Discharge (ESD)
Build up of electro-static discharge occurs in many situations involving people moving and handling products.The range of possible situations is very diverse but voltage levels as high as several thousand volts can and do arise in many individual situations. When an operator charged up to these levels handles a static sensitive device, there is a very probable likelihood that the device will be irreversibly damaged. It is essential that precautions are taken at all stages during manufacture and assembly of these products. Although LEDs were never considered to be static sensitive devices, changes in manufacturing technology and materials used to produce higher intensity products over a large range of the wavelength spectrum have changed this. Marl has an approved system of ESD control from goods in, through production and into final packing and despatch. Marl recommend all users of LED based products follow the guidelines of BS 100015.

Voltage, Current and Temperature
The forward voltage / current value of an LED is dependent upon the ambient temperature of the environment in which it is operated. Therefore, care must be taken to operate the LED at the correct voltage / current values, depending upon the ambient temperature.

Marl should be contacted if the device is to be operated outside the temperature range specified. Marl accept no liability for any product that is operated outside the stated voltage or temperature range.

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