677 SERIES EMC
PANEL INDICATOR LED

FEATURES

- EMC mesh under lens
- Ø8.1mm mounting
- Black chrome aluminium housing
- Sealed to IP67 - weatherproof
- Wide viewing angle - smoked lens
- Internal potting
- Reverse protection diode fitted in all voltage models
- Range of LED colour options
- Range of voltage options

BENEFITS

- Protects against EMI/RFI
- 'D' mounting hole aids anti-rotation
- Suitable for portable equipment
- Suitable for external applications
- Smoked lens gives good on/off contrast ratio
- Suitable for high vibration applications
- Protects against wrong polarity installation (voltage models)
- Suitable for status panel indication
- Manufactured with internal resistor
- Outstanding reliability
- Vandal resistant

Marl Part Number	LED Colour	Typical Voltage Vopr	Typical Current Iopr	Typical LED Luminous Intensity	Typical LED Wavelength λp	Operating Temp Topr *	Storage Temp Tstg
677-501-21-53	Red	12	20	458	625	-40 to +75	-40 to +100
677-521-21-53	Yellow	12	20	440	590	-40 to +75	-40 to +100
677-532-21-53	Green	12	20	2157	520	-40 to +75	-40 to +100
677-930-21-53	Blue	12	20	452	470	-40 to +75	-40 to +100
677-997-21-53	Cool White	12	20	1359	See Below	-40 to +75	-40 to +100
677-501-23-53	Red	24-28	15	346	625	-40 to +75	-40 to +100
677-521-23-53	Yellow	24-28	15	330	590	-40 to +75	-40 to +100
677-532-23-53	Green	24-28	15	1815	520	-40 to +75	-40 to +100
677-930-23-53	Blue	24-28	15	364	470	-40 to +75	-40 to +100
677-997-23-53	Cool White	24-28	15	1063	See Below	-40 to +75	-40 to +100
		Vdc (unless stated)	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.

To order please contact us on +44 (0) 1229 582 430
F +44 (0) 1229 585 155 | E sales@marl.co.uk | www.leds.co.uk
marlleds marlinternationallimited company/marl-international-limited

Q 05480

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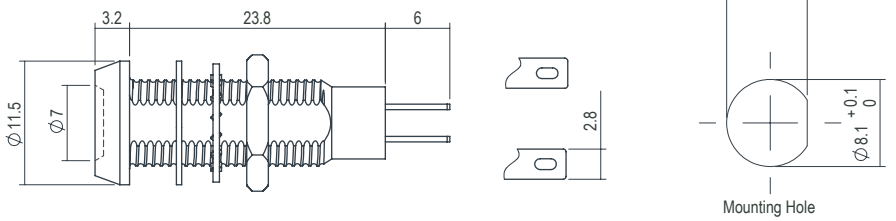
TECHNICAL CHARACTERISTICS

Series	Max. Power Dissipation	Max. Reverse Voltage	Panel Cutout	Nut Mounting Torque	Min. Mounting Centres	Min. - Max. Panel Thickness
677	700	3*/1000^	8.1	0.6	14.5	1.5 - 13.0
	mW	Vdc	mm	Nm	mm	mm

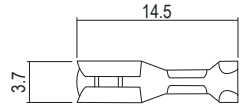
* = Current version ^ = Voltage version

TECHNICAL DRAWING

Weight (g): 5.3
Dimensions in mm (typical). Not to scale. Mounting hole to be clean and burr free. Anode termination denoted by red sleeve.



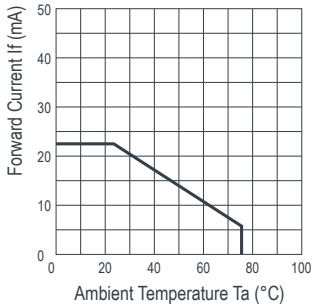
PUSH ON CONNECTOR



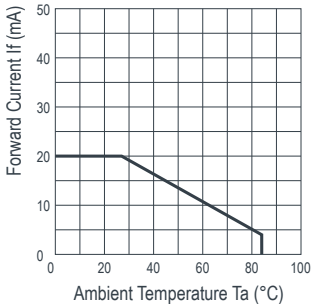
925-000-00 is brass tin plated - for use with 677 series lamps. Dimensions in mm (typical). Not to scale.

DE-RATING GRAPHS

Red / Green / Blue / Cool White LED



Yellow LED



MATERIALS

Body	Black Chrome Aluminium
Nut	Nickel Plated Brass
Panel Seal	Conductive Rubber
Fresnel Lens	Polycarbonate
Encapsulation	Black Polyurethane
Lock Washer	Spring Steel
Termination	Silver Flash Coated Brass

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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