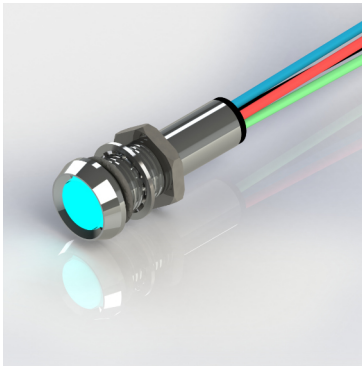


# 525 SERIES PANEL INDICATOR LED



## FEATURES

- Ø8.1mm mounting
- Nickel Plated Brass housing
- Sealed to IP67 - weatherproof
- White diffused lens
- Internal potting
- Reverse protection diode fitted as standard
- Multi-Colour / RGB LED, individually addressable
- 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
- Protects against wrong polarity installation
- One panel indication with 25 LED colours
- Manufactured with internal resistor
- Outstanding reliability
- Vandal resistant

MARL Part Number	LED Colour	Typical Voltage Vopr	Typical Current DC Iopr R/G/B	Max. Reverse Voltage	Typical LED Luminous Intensity R/G/B	Typical LED Wavelength λp R/G/B	Operating Temp ToPr *	Storage Temp Tstg
525-095-21-50	Multi-Colour / RGB	12	16/20/7	100	550/1100/240 @ 20mA	635/523/460	-30 to +85	-40 to +100
525-095-23-50	Multi-Colour / RGB	24-28	8/10/3.5	100	550/1100/240 @ 20mA	635/523/460	-30 to +85	-40 to +100
525-095-24-50	Multi-Colour / RGB	48	5.5/6.5/2.5	100	550/1100/240 @ 20mA	635/523/460	-30 to +85	-40 to +100
		Vdc	mA	V	mcd	nm	°C	°C

## LED Colours



White



Red Green Blue



Pink Teal Yellow

## Product Description:

8.1mm mounting, professional LED Panel Indicator featuring a high intensity, multi-coloured RGB LED element. Internal circuitry is designed for operation at a range of voltage options and includes a reverse protection diode, as standard. Termination is achieved by 4 x 150mm colour coded flying leads (white lead is common Anode +Ve), the range of LED colours are individually addressable. This particular device is fitted with a low profile, white diffused lens assembly to provide excellent on/off contrast ratio. The precision turned housing is manufactured from brass with a high quality, bright nickel finish. Benefits include high optical performance, outstanding reliability, vandal resistance and sealing specifications in excess of IP67. The indicator is supplied complete with full mounting hardware.

## NOTES

Intensities (Iv) may vary between LEDs within a batch. Additional Flying Lead lengths available for semi-custom projects. Please contact our Sales Team.

All LED components are supplied in anti-static packaging.

\* All characteristics given at Ta = 25°C. For operating temperature derating graphs, please refer to sheet 2.

White at 12Vdc = 43mA. Power Dissipation (total for product) at 516mW

White at 24Vdc = 21.5mA. Power Dissipation (total for product) at 516mW

White at 48Vdc = 14.5mA. Power Dissipation (total for product) at 696mW

To order please contact us on +44 (0) 1229 582 430

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# 525 SERIES PANEL INDICATOR LED



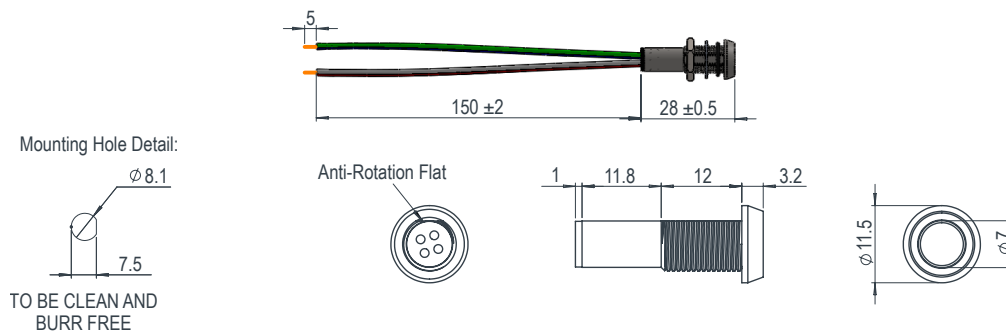
## TECHNICAL CHARACTERISTICS

Series	Max. Power Dissipation	Panel Cutout	Nut Mounting Torque	Min. Mounting Centres	Min - Max. Panel Thickness
520	825	8.1	1	14.5	1.5 - 8.0
	mW	mm	Nm	mm	mm

## TECHNICAL DRAWING

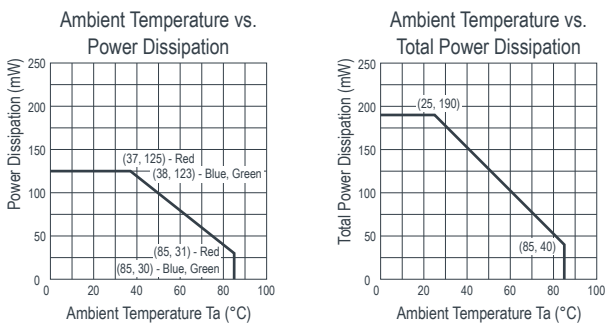
Weight (g): 6.7

Dimensions in mm (typical). Not to scale. Mounting hole to be clean and burr free. Polarity: White +Ve, Green -Ve, Red -Ve, Blue -Ve.



## DE-RATING GRAPHS

De-rating graphs refer only to the discrete LED within the product.



## MATERIALS

<b>Body</b>	Nickel Plated Brass
<b>Nut</b>	Nickel Plated Brass
<b>Seal</b>	Nitrile Rubber
<b>Lens</b>	Polycarbonate
<b>Encapsulation</b>	Black Polyurethane
<b>Lock Washer</b>	Zinc Plated Steel
<b>Termination</b>	4 off 1.19mm OD dual wall construction, spec 44 flying leads, 150mm long

## 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 dispatch. MARL recommend all users of LED based products follow the current BSI guidelines for protection of electronic devices from electrostatic phenomena.

### 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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