

● PROFESSIONAL LED INDICATORS Ø13mm Mounting

**FEATURES**



**528 SERIES**

PACK QUANTITY = 10 PIECES

- Robust stainless steel housing
- Low profile styling, sunlight readable LEDs
- 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 λ.p (nm)	OPERATING TEMP Topr	STORAGE TEMP Tstg	
<b>HIGH INTENSITY</b>									
528-501-21	Red	Colour Diffused	12	19	11000	643	-40 ~ +95^	-40 ~ +100	Yes
528-521-21	Yellow	Colour Diffused	12	19	16000	591	-40 ~ +95^	-40 ~ +100	Yes
528-532-21	Green	Colour Diffused	12	20	23000	527	-40 ~ +95^	-40 ~ +100	Yes
528-930-21	Blue	Colour Diffused	12	20	7000	470	-40 ~ +95^	-40 ~ +100	Yes
528-997-21	Cool White	Colour Diffused	12	20	14000	*see below	-40 ~ +95^	-40 ~ +100	Yes
528-501-23	Red	Colour Diffused	24-28	20	11000	643	-40 ~ +95^	-40 ~ +100	Yes
528-521-23	Yellow	Colour Diffused	24-28	20	16000	591	-40 ~ +95^	-40 ~ +100	Yes
528-532-23	Green	Colour Diffused	24-28	20	23000	527	-40 ~ +95^	-40 ~ +100	Yes
528-930-23	Blue	Colour Diffused	24-28	20	7000	470	-40 ~ +95^	-40 ~ +100	Yes
528-997-23	Cool White	Colour Diffused	24-28	20	14000	*see below	-40 ~ +95^	-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.

^ = 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) •

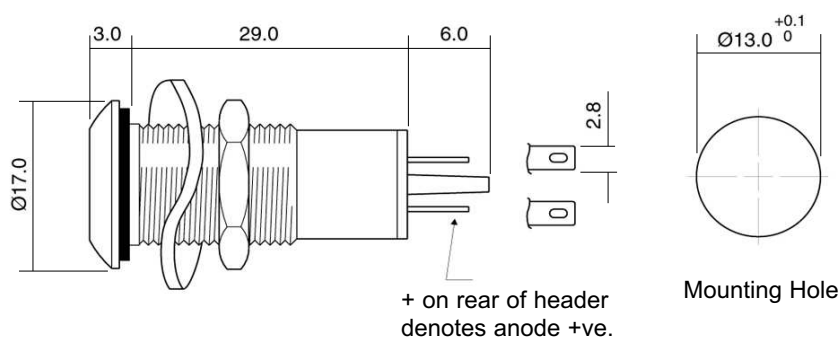
• Telephone +44 (0)1229 582430 • Fax: +44 (0)1229 585155

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

## 528 Series



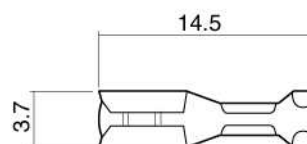
Dimensions in mm (Typical)  
Not to scale

Mounting hole to be clean and burr free

### MATERIALS

Body	Stainless steel grade 303
Nut	Stainless steel grade 303
Panel Seal	Viton
Termination	Brass to BS 2874 CZ108 Copper flash undercoat with silver flash finish
Lock Washer	Stainless steel
Fresnel lens	Polycarbonate
Encapsulation	PC5430 resin
Header	Nylon 6 A82

### PUSH-ON CONNECTORS



925-000-00 is brass tin plated.  
For use with 528 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
528	825	1000	13.0	1.0	x,y=26.0	2.0-10.0
	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			

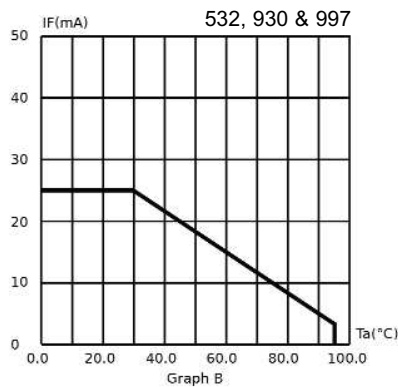
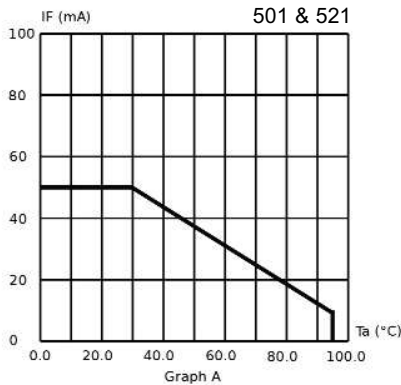
website: [www.marl.co.uk](http://www.marl.co.uk) • email: [sales@marl.co.uk](mailto:sales@marl.co.uk) •  
• Telephone +44 (0)1229 582430 • Fax: +44 (0)1229 585155

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 528 Series:

PART NO.	COLOUR	VOLTAGE DC (Vdc) Vopr
528-000-00-50		125 VDC
528-501-04	Red	20mA
528-501-21-15	Red	12 VDC
528-501-21-19	Red	12 VDC
528-501-22	Red	24 VDC
528-501-22-15	Red	24 VDC
528-501-22-19	Red	24 VDC
528-501-22-50	Red	24 VDC
528-501-23-15	Red	28 VDC
528-501-24-19	Red	48 VDC
528-501-25	Red	110 VDC
528-501-72	Red	24 VAC
528-501-75	Red	110 VAC
528-501-76	Red	230 VAC
528-501-76-15	Red	230 VAC
528-501-76-50	Red	230 VAC
528-501-86	Red	115 VAC
528-506-23	Orange	28 VDC
528-512-21-15	Green	12 VDC
528-512-22-15	Green	24 VDC
528-512-76	Green	230 VAC
528-521-04	Yellow	20mA
528-521-21-19	Yellow	12 VDC
528-521-22	Yellow	24 VDC
528-521-22-15	Yellow	24 VDC
528-521-22-19	Yellow	24 VDC
528-521-22-50	Yellow	24 VDC
UNITS		

PART NO.	COLOUR	VOLTAGE DC (Vdc) Vopr
528-521-23-15	Yellow	28 VDC
528-521-23-50	Yellow	28 VDC
528-521-53	Yellow	50 VDC
528-521-72	Yellow	24 VAC
528-521-75	Yellow	110 VAC
528-521-76	Yellow	230 VAC
528-521-76-50	Yellow	230 VAC
528-521-86	Yellow	115 VAC
528-532-04	Green	20mA
528-532-20	Green	5/6 VDC
528-532-21-19	Green	12 VDC
528-532-22	Green	24 VDC
528-532-22-19	Green	24 VDC
528-532-22-50	Green	24 VDC
528-532-24	Green	48 VDC
528-532-25	Green	110 VDC
528-532-42	Green	15 VDC
528-532-72	Green	24 VAC
528-532-74	Green	48 VAC
528-532-75	Green	110 VAC
528-532-76	Green	230 VAC
528-532-76-19	Green	230 VAC
528-532-76-21	Green	230 VAC
528-532-76-50	Green	230 VAC
528-532-86	Green	115 VAC
528-930-04	Blue	20mA
528-930-04-15	Blue	20mA
UNITS		

PART NO.	COLOUR	VOLTAGE DC (Vdc) Vopr
528-930-04-50	Blue	20mA
528-930-04-51	Blue	20mA
528-930-21-19	Blue	12 VDC
528-930-22	Blue	24 VDC
528-930-25	Blue	110 VDC
528-930-75	Blue	110 VAC
528-930-76	Blue	230 VAC
528-997-04	White	20mA
528-997-21-19	White	12 VDC
528-997-22	White	24 VDC
528-997-22-19	White	24 VDC
528-997-22-50	White	24 VDC
528-997-24	White	48 VDC
528-997-72	White	24 VAC
528-997-75	White	110 VAC
528-997-76	White	230 VAC
528-997-76-19	White	230 VAC
528-997-76-50	White	230 VAC
528-997-86	White	115 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



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.