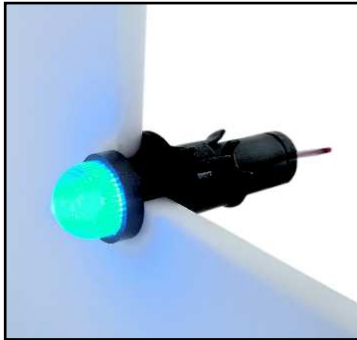


PANEL INDICATOR LEDs - Ø6.35mm Mounting

## FEATURES



### 319 SERIES

PACK QUANTITY = 20 PIECES

- Domed fresnel lens styling for wide viewing angle
- Flying lead terminations and low current versions available
- Sealed to IP40
- Supplied complete with mounting hardware
- Product illustrated 319-930-04

## 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>									
319-505-21	Red	Colour Diffused	12	20	60	627	-40 ~ +85^	-40 ~ +85	Yes
319-511-21	Yellow	Colour Diffused	12	20	40	590	-40 ~ +85^	-40 ~ +85	Yes
319-512-21	Green	Colour Diffused	12	20	120	565	-40 ~ +85^	-40 ~ +85	Yes
<b>HIGH INTENSITY</b>									
319-501-21	Red	Colour Diffused	12	20	2700	660	-40 ~ +85^	-40 ~ +85	Yes
319-521-21	Yellow	Colour Diffused	12	20	6100	595	-40 ~ +85^	-40 ~ +100	Yes
319-532-21	Green	Colour Diffused	12	20	11600	525	-30 ~ +85^	-40 ~ +100	Yes
319-930-21	Blue	Colour Diffused	12	20	3460	470	-30 ~ +85^	-40 ~ +100	Yes
319-997-21	Cold White	Colour Diffused	12	20	7800	*see below	-30 ~ +85^	-40 ~ +100	Yes
319-501-23	Red	Colour Diffused	24-28	20	2700	660	-40 ~ +85^	-40 ~ +85	Yes
319-521-23	Yellow	Colour Diffused	24-28	20	6100	595	-40 ~ +85^	-40 ~ +100	Yes
319-532-23	Green	Colour Diffused	24-28	20	11600	525	-30 ~ +85^	-40 ~ +100	Yes
319-930-23	Blue	Colour Diffused	24-28	20	3460	470	-30 ~ +85^	-40 ~ +100	Yes
319-997-23	Cold White	Colour Diffused	24-28	20	7800	*see below	-30 ~ +85^	-40 ~ +100	Yes
<b>UNITS</b>			<b>Vdc</b>	<b>mA</b>	<b>mcd</b>	<b>nm</b>	<b>°C</b>	<b>°C</b>	



<b>997</b>	*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.

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

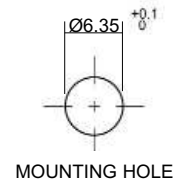
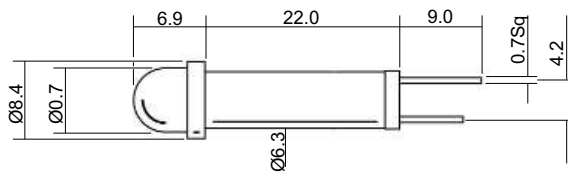
### How to Order:

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### 319 Series



MOUNTING HOLE

Dimensions in mm (Typical)  
Not to scale

Anode termination indicated by long tag.

#### MATERIALS

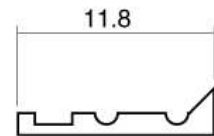
Body	Nylon 6
Panel Washer	Neoprene
Termination Pins	Tin on Nickel Plated Phosphor Bronze
Retaining Clip	Spring steel
Fresnel lens	Polycarbonate
Header	PTFE

#### PUSH-ON CONNECTORS

909-000-00 is gold plated  
910-000-00 is tin plated  
for use with 319 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.



Dimensions in mm (Typical)  
Not to scale

#### TECHNICAL CHARACTERISTICS

SERIES	MAXIMUM POWER DISSIPATION	MAXIMUM REVERSE VOLTAGE	PANEL CUTOUT	MINIMUM MOUNTING CENTRES	MIN/MAX. PANEL THICKNESS
319	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.

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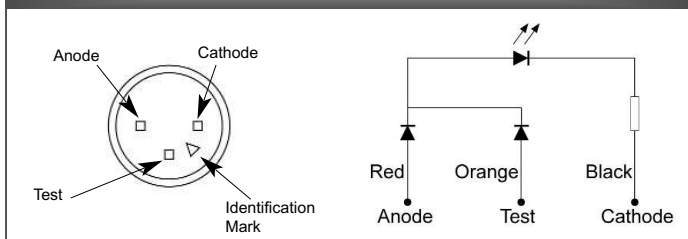


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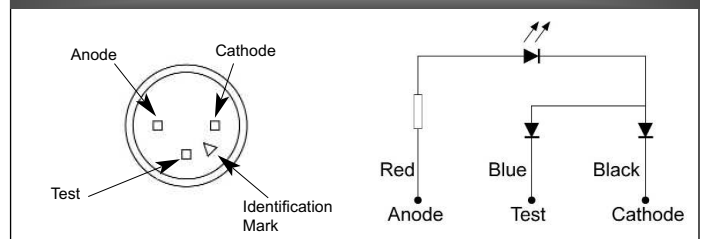
## Diode Test Facility

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	

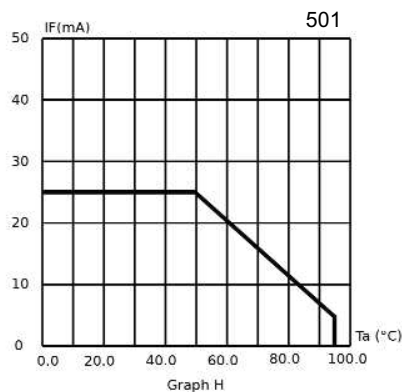
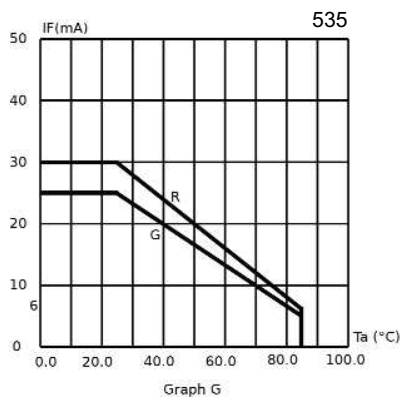
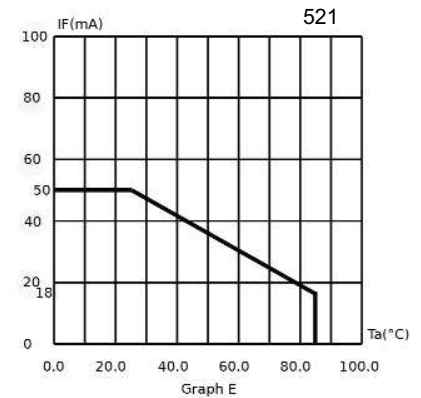
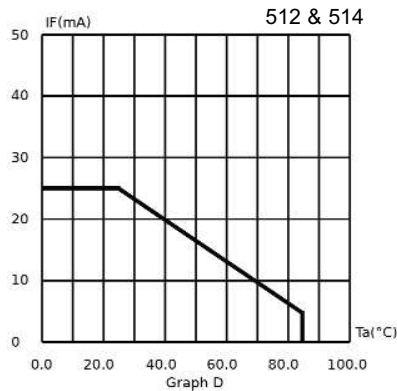
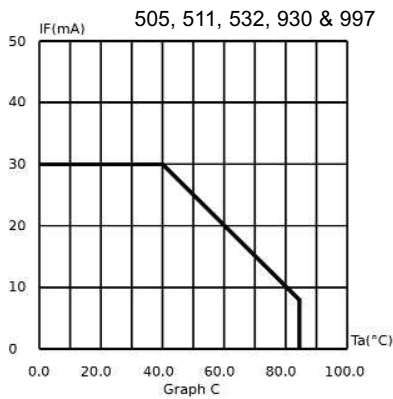
### Test Positive



### Test Negative



## De-rating Information



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## 319 Series

Part numbers also available in the 319 Series:

PART NO.	COLOUR	VOLTAGE (Vdc) Vopr	PART NO.	COLOUR	VOLTAGE (Vdc) Vopr	PART NO.	COLOUR	VOLTAGE (Vdc) Vopr
319-501-04	Red	20mA	319-509-04-03	Yellow	20mA	319-521-04	Yellow	20mA
319-501-21	Red	12Vdc	319-509-04-04	Yellow	20mA	319-521-22	Yellow	24Vdc
319-501-22	Red	24Vdc	319-509-04-51	Yellow	20mA	319-532-04	Green	20mA
319-501-22-03	Red	24Vdc	319-509-20	Yellow	5/6Vdc	319-532-22	Green	24Vdc
319-501-46	Red	35Vdc	319-509-21	Yellow	12Vdc	319-532-75-21	Green	110Vac
319-502-21	Red	12Vdc	319-509-21-04	Yellow	12Vdc	319-555-00-50	Red	9-14Vdc
319-502-22-03	Red	24Vdc	319-509-22	Yellow	24Vdc	319-561-00-50	Yellow	9-14Vdc
319-503-04-03	Red	20mA	319-509-22-03	Yellow	24Vdc	319-564-00-50	Green	9-14Vdc
319-503-04-04	Red	20mA	319-509-22-50	Yellow	24Vdc	319-564-04	Green	20mA
319-503-04-50	Red	20mA	319-509-22-51	Yellow	24Vdc	319-921-75	Green	110Vac
319-503-20	Red	5/6Vdc	319-509-22-52	Yellow	24Vdc	319-930-04	Blue	20mA
319-503-21	Red	12Vdc	319-509-22-53	Yellow	24Vdc	319-930-04-03	Blue	20mA
319-503-21-04	Red	12Vdc	319-509-23	Yellow	24-28Vdc	319-930-04-04	Blue	20mA
319-503-21-17	Red	12Vdc	319-509-23-03	Yellow	24-28Vdc	319-930-04-50	Blue	20mA
319-503-22	Red	24Vdc	319-509-23-04	Yellow	24-28Vdc	319-930-22	Blue	24Vdc
319-503-22-03	Red	24Vdc	319-509-24-03	Yellow	48Vdc	319-930-22-03	Blue	24Vdc
319-503-22-04	Red	24Vdc	319-511-04	Yellow	20mA	319-997-04	White	20mA
319-503-22-50	Red	24Vdc	319-511-21-50	Yellow	12Vdc	319-997-22	White	24Vdc
319-503-22-51	Red	24Vdc	319-511-22	Yellow	24Vdc	319-997-46	White	35Vdc
319-503-22-52	Red	24Vdc	319-511-22-03	Yellow	24Vdc	UNITS		
319-503-22-54	Red	24Vdc	319-512-04	Green	20mA			
319-503-23	Red	24-28Vdc	319-512-20	Green	5/6Vdc			
319-503-23-04	Red	24-28Vdc	319-512-21-04	Green	12Vdc			
319-503-43	Red	18Vdc	319-512-21-50	Green	12Vdc			
319-505-04	Red	20mA	319-512-22	Green	24Vdc			
319-505-20	Red	5/6Vdc	319-512-22-03	Green	24Vdc			
319-505-21-50	Red	12Vdc	319-512-22-50	Green	24Vdc			
319-505-22	Red	24Vdc	319-512-22-52	Green	24Vdc			
319-505-22-03	Red	24Vdc	319-512-22-53	Green	24Vdc			
319-506-04	Orange	20mA	319-512-22-54	Green	24Vdc			
319-506-22	Orange	24Vdc	319-512-23-03	Green	24-28Vdc			
319-506-22-03	Orange	24Vdc	319-512-23-04	Green	24-28Vdc			
319-506-22-50	Orange	24Vdc	319-512-25-13	Green	110Vdc			
319-506-23-04	Orange	24-28Vdc	319-514-22	Green	24Vdc			
319-506-76-15	Orange	230Vac	319-519-22-03	Blue	24Vdc			
319-509-04	Yellow	20mA	319-519-23-03	Blue	24Vdc			
UNITS			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.

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