



## variable focus industrial laser diode module : elliptical beam

### Key features

- Wavelengths from 635nm to 830nm
- Output powers from 0.97mW to 27.50mW
- Beam size @ aperture 4 x 3mm
- Adjustable focus
- Scratch-resistant sapphire window protects lens
- 2.5mm DC jack or industrial screw-on connector
- Robust and compact design
- Rugged and reliable

### Applications

- Industrial alignment
- Industrial positioning

## Variable Focus Industrial Laser Diode Module

Designed and constructed to withstand the harshest conditions and satisfy rigorous industrial applications whilst remaining economically priced, the range of robust industrial laser modules offers a very high level of performance.

The variable focus industrial laser module is available in a variety of wavelengths from 635nm to 830nm, optical output powers from 0.95mW to 30mW with elliptical output beam.

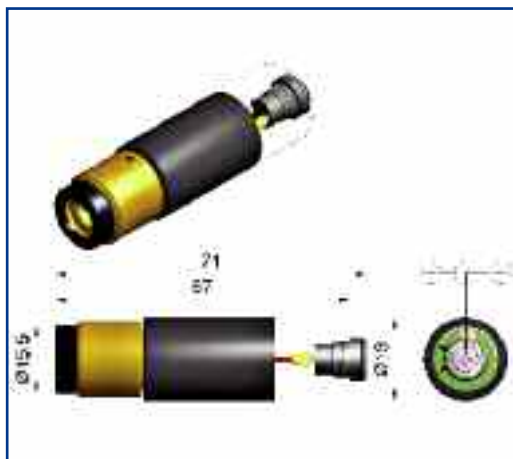
The beam is aligned to  $<0.25^\circ$  of the mechanical axis of the laser. User-adjustable focus offers greater flexibility.

A range of industrial-type connectors, a scratch-resistant sapphire window to protect the lens and a hard-coat anodised case all add up to a rugged and reliable laser module that won't let you down when the going gets tough.

Electrical connections are made via an industrial screw-on connector or 2.5mm jack.

The standard lens may be replaced by other optical systems such as line or cross generators.

The variable focus industrial range of laser diode modules has been designed as a complete laser diode solution for heavy duty OEM use.



**Specifications** (typical @ tc = 25°C)

Beam Size @ Aperture 4 x 3 mm typ, 1/2 Angle Beam Divergence 0.3 x 0.4 mrad typ.

Part Number Screw On	DC	Wavelength (nm)	Power (mW)	Max. Operating Current (mA)
300-2350-00	300-2350-01	635	0.97	45
300-2351-00	300-2351-01	635	5.00	50
300-2352-00	300-2352-01	635	8.20	50
300-2353-00	300-2353-01	635	12.40	105
300-2354-00	300-2354-01	635	27.50	135
300-2355-00	300-2355-01	650	0.97	45
300-2356-00	300-2356-01	650	5.00	45
300-2357-00	300-2357-01	650	27.50	85
300-2358-00	300-2358-01	670	0.97	45
300-2359-00	300-2359-01	670	5.00	45
300-2360-00	300-2360-01	780	0.97	55
300-2361-00	300-2361-01	780	5.00	55
300-2362-00	300-2362-01	830	27.50	100

**Accessories**

300-0399-00	2 Metre Industrial Power Lead
300-0440-00	Universal 5V Power Supply

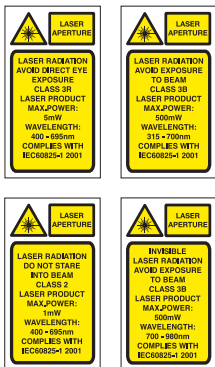


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**General Specifications** (typical @  $t_c = 25^\circ\text{C}$ )

Power Stability	< 5%
Pointing Stability	<0.2mrad/°C
Bore Sighting	<0.25°
Operating Voltage (DC)	5V DC Regulated $\pm$ 10%
Case	Electrically Isolated
Circuit Protection	Static, Surge and Reverse Polarity
Connector Types	IP68 M12 x 1mm Male Connector 2.5mm DC Male Connector
Operating Temperature	-10°C to +50°C
Storage Temperature	-40°C to +80°C
Housing Material	Aluminium - Hard Anodised Black
Exit Aperture Protection	Glass Sapphire Window
Certifications	All Products are RoHS Compliant
Warranty	1 Year



**Laser Safety**

The light emitted from these devices has been set in accordance with IEC60825. However, staring into the beam, whether directly or indirectly, must be avoided. IEC60825 classifies laser products into three different categories depending on light emitted, wavelength and eye safety.

**CLASS II**

"Caution", visible laser light less than 1.0mW. Considered eye safe, normal exposure to this type of beam will not cause permanent damage to the retina.

**CLASS IIIA**

"Danger", visible laser light between 1.0mW and 5.0mW. Considered eye safe with caution. Focusing of this light into the eye could cause some damage.

**CLASS IIIB**

"Danger", infrared (IR), and high power visible lasers considered dangerous to the retina if exposed.

NB: It is important to note that while complying with the above classifications, unless otherwise stated, our laser diode products are not certified and are designed solely for use in OEM products. The way in which the device is used in the final product may alter its original design classification, and it is the responsibility of the OEM to ensure compliance with the relevant standards.

**Heat Sinking**

If the case temperature of the laser diode exceeds its maximum specification, premature or catastrophic failure may occur. To ensure the maximum life of the laser diode, it is recommended that an additional electrically insulated heatsink, of at least 35 sq.cm. be used. Thermal transfer cream can be used to improve contact and heat dissipation. Do not restrict air circulation around the device.

**Power Connections**

The industrial laser diode modules require a regulated input voltage of 5V DC.

**WARNING:** The anodised housing is internally connected to the positive supply rail. Damage to the external anodised surfaces will result in the housing being at positive potential.

Specifications subject to change without notice. E&OE



## variable focus industrial laser diode module : elliptical beam

Photonic Products is a leading global manufacturer of custom designed laser diode modules and laser diode assemblies and an authorised distributor of high performance, premium quality industrial laser diodes and high power lasers from the top Japanese laser diode manufacturers: SANYO, Opnext and Sony, and precision optical lenses from Panasonic to OEMs in the industrial, medical, biomedical, scientific and defence markets.

Photonic Products was established in 1995 and has operations in the United Kingdom, the United States and Germany.

It has twice been honoured with a Queen's Award for Enterprise : International Trade.

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