

DATASHEET



FEATURES

- ✓ High Visibility Line
- ✓ Adjustable Focus
- ✓ Custom Options Available

APPLICATIONS

- ✓ Measurement
- ✓ Bioanalytical
- ✓ Automation and Alignment

Operational Hazard of Laser Module

This laser module emits radiation that is visible/invisible and harmful to human eye. When in use, do not look directly into the laser emitting aperture. Direct viewing of laser diode emission at close range may cause eye damage.



Limited Warranty

One year. No warranty coverage for disassembly, modifications, or damage due to abuse or misapplication.



SPECIFICATIONS

OPTICAL

Wavelength	405 ± 5 nm
Optical Output Power	Up to 50 mW
Laser Power Stability	< 1% (with heat sink)
Laser Structure	Single Mode
Laser Focus	Adjustable or Fixed (Optional)
Laser Line Thickness	< 1 mm @ 2 m distance. Focusable to < 0.5 mm at short distance (0.5 m)
Laser Class	Depends on fan angle
Divergence at collimation	< 1 mrad
Laser Fan Angles Available	4, 15, 30, 45, 75, 90 degree

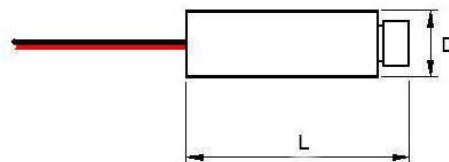
ELECTRICAL

Operating Voltage	3.3 to 5 V DC
Operating Current	< 200 mA
Control Circuit	Constant Current Control
Electrical Connections	+Red, -Black

MECHANICAL

Dimension	15 mm (D) x 60 mm (L)
Operating Temperature	+10°C to +30°C
Storage Temperature	-40°C to +80°C
Heat Sink Requirements	Recommended for extended use

OUTLINE DRAWING



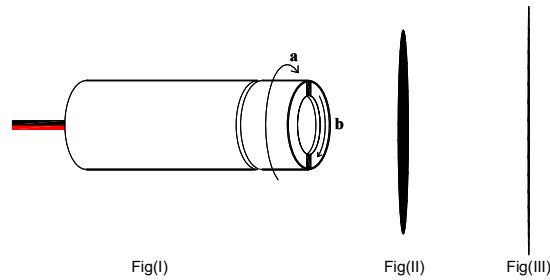
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FOCUS ADJUSTMENT OF LINE GENERATORS

The line generator lens assembly consists of: aspherical lens assembly *a* and cylindrical lens assembly *b*. Lens assembly *a* adjusts the coarse thickness of the line and lens assembly *b* adjusts the fine thickness of the line.

To focus the line at a given distance rotate lens assembly *a*, until you get the thinnest possible line. Your line at this point may look the line in Fig (II), thick in the center and thin along the edges.

To adjust to a thin line focused line (Fig (III)), keep lens assembly *a* fixed and gently rotate lens assembly *b* ($<90^\circ$) (making sure not to move lens assembly *a* during this process) until you get a thin uniform line as shown in Fig (III).



Part Number	Power	Class
HPL-5G-405-**	< 5 mW	Varies with Fan
HPL-10G-405-**	10 mW	Varies with Fan
HPL-25G-405-**	25 mW	Varies with Fan
HPL-35G-405-**	35 mW	Varies with Fan
HPL-50G-405-**	50 mW	Varies with Fan

Information contained herein is deemed reliable and accurate as of the issue date. WORLD STAR TECH reserves the right to change the design or specification at any time without notice.