

PEGASUS MICRO-COMPACT

PL.MCyyy.zzz

Line laser with integrated controller:

- Wavelengths 405 - 808 nm
- Power up to 1 W
- Powell line generator
- Industrial housing

Applications:



Machine vision

Triangulation setup for high speed inspection.



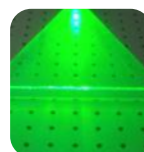
Long distance line projection

Alignment for distances up to 100 m.



Road and railway inspection

Surface inspection with mobile triangulation systems.



Flow visualisation

Measurement of fluid dynamics.

PEGASUS MICRO-COMPACT
PL.MCyyy.zzz

OPTICAL					
Wavelengths *	405 nm	450 nm	525 nm	638 nm	808 nm
Power *	400 mW	800 mW	700 mW	400 mW	1000mW
Line optics fan angle *	15°, 30°, 45°, 60°, 75°				
Line thickness at aperture	< 3.0 mm				
Divergence (full angle)	< 1.5 mrad				
Power stability	< +/- 2 % (over 2 h)				
ELECTRICAL					
Power supply voltage	+12 VDC				
Operation current (at Pmax)	< 3 A				
Integrated TEC	Yes				
NTC	10 kOhm at 25° C				
Modulation input	analog 0 - 5 VDC				
Modulation frequency	DC - 50 kHz				
MECHANICAL					
Dimension laser head	130 x 60 x 25 mm ³				
Weight laser head	540 g				
ENVIRONMENTAL					
Cooling	via baseplate (must be attached to external heat sink)				
Operating temperature	10 - 35° C				
Warm-up time	< 5 min				
Laser class (EN 60825-1)	4				

Notes:

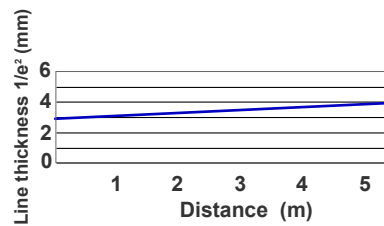
All specifications are given at 22 °C constant environment temperature.

* Others on request.

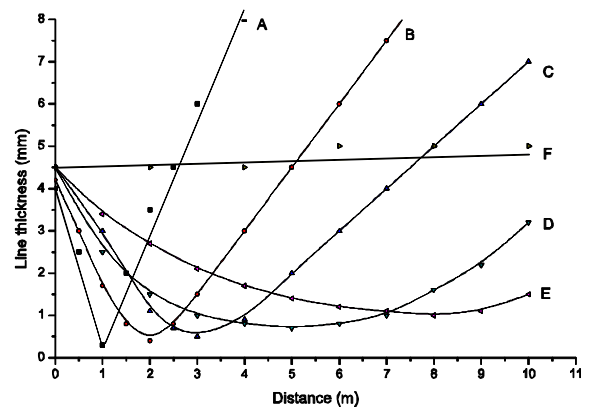
Focussing performance

The standard version of the MINI-COMPACT line laser PL.MC.525.xxx-Lzz is collimated at factory for a large Rayleigh length. The line thickness at aperture is typically < 3.0 mm ($1/e^2$) with divergency < 1.0 mrad.

Regarding to customers application requirements, the line can be focused at factory to specific projection distances.



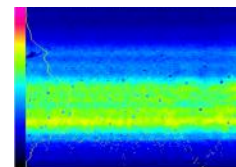
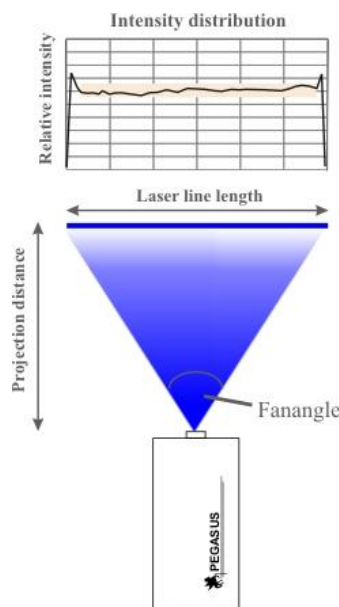
Typical line thickness ($1/e^2$) for collimated line at Pmax.



Example measurements of line thickness ($1/e^2$) for different focusing adjustments (curves A - F) for PL.MI445.2000-Lzz. The data may vary with type of laser diode.

Intensity profile

The MINI line laser series is provided with high quality Powell line lens to generate a homogenous intensity distribution along the line, typically < 20 %.

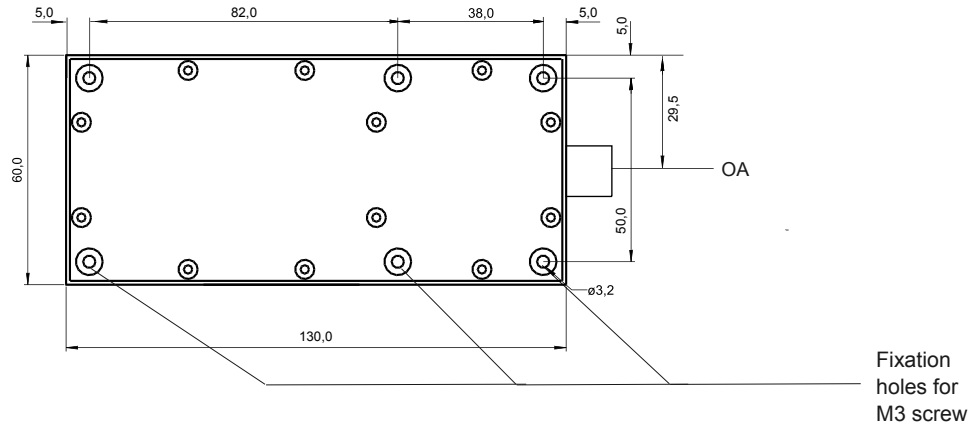


Typical intensity profile for the multimode laser line.

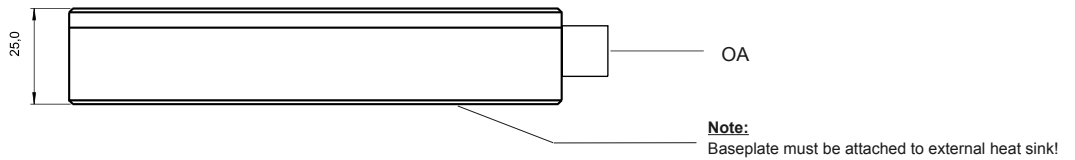
PEGASUS MICRO-COMPACT
PL.MCyyy.zzz

Mechanical dimensions

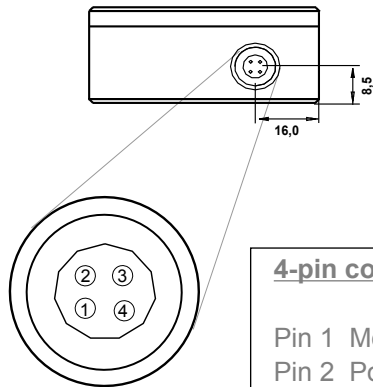
Top view



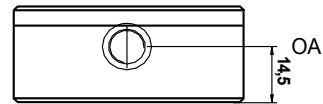
Side view



Rear view



Front view



4-pin connector

- Pin 1 Mod In 0 - 5 VDC
- Pin 2 Power supply +12 VDC / < 3 A
- Pin 3 GND for 12 VDC power supply
- Pin 4 GND for Mod In

PEGASUS follows a policy of continuous product improvement and reserves the right to change any specifications without notice.

All products comply the warranty of 1 year.



PEGASUS LASERSYSTEME GMBH
Marie-Curie Strasse 23
D-49134 Wallenhorst
Germany
Phone: +49(0)5407-3123-0 Fax: +49(0)5407-3123-6
Email: info@pegasus-lasersysteme.de

www.pegasus-lasersysteme.de

