

13LR12-S500+55CM-488-42-O09-T15-P-6

Laser Micro Line Generator with a fan angle



FEATURES

Laser line with a fan angle and approx. uniform intensity distribution.

- Line length: 103 mm
- Line width: 100 μm
- Wavelength: 488 nm
- Working distance: 496 mm

- Micro Line Generator for small laser line widths and high power density in the focal plane



DESCRIPTION

The laser diode beam source type 13LR12-S500+55CM-488-42-O09-T15-P-6 has a fan angle of 12° with a constant line width and approx. uniform intensity distribution along the laser line.

The fine-structure is a [chain of equidistant dots](#) with a spacing of approx. the line width. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics [type P](#) with micro-controller for control of the laser output power. The output power can be controlled using the [modulation input ports \(TTL and analog\)](#) or manually using the potentiometer.

The working distance can be adjusted by adjusting the focus setting. Please note that beam parameters like line length and line width increase proportionally to the working distance.

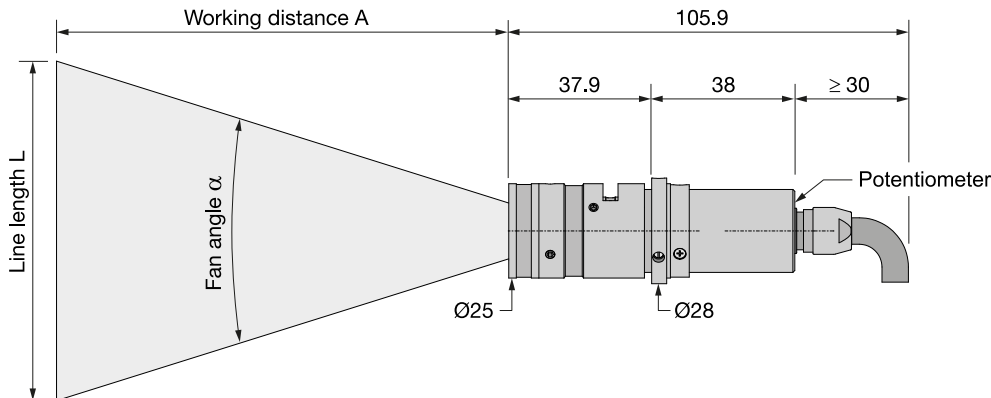
A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

TECHNICAL DATA

13LR12-S500+55CM-488-42-O09-T15-P-6

Series	13LR	
Order Code	13LR12-S500+55CM-488-42-O09-T15-P-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	488 +2/-2 nm	
Laser output power	42 mW	
Laser safety class	3B	
Fan angle α	12 deg	
Focussing range	415-815 mm	
Working distance	496 mm	
Line length	103 mm	
Line width	0.1 mm	
Rayleigh range	32.2 mm	
Edge intensity	80 %	
Diameter laser module	25/28 mm	
Module length	75.9 mm	
Installation length	601.9 mm	
Cable length	1.5 m	
Connector type	Lumberg SV50 IEC 61076-2-106	
Supply voltage	5 \pm 0.2 V	
Max. current consumption	0.5 A	
Working temperature	15 - 40 °C	
Modulation inputs	Analog	TTL
Input resistance	9 kOhm	9 kOhm
Max. modulation frequency	0.01 kHz	250 kHz
Modulation delay ON/OFF	3000/3000 μ s	0.5/0.2 μ s
Rise / Fall time	40000/40000 μ s	0.5/0.5 μ s

Dimensions (for a complete dimensional drawing please refer to the downloads section)



DOWNLOADS



[930412000125.pdf](#)

ACCESSORIES

50HD-15	Hex key WS 1.5
9D-12	Screwdriver WS 1.2
13MK-25-36-10-F	Mounting Console with flat base plate
13MK-25-36-10-M	Mounting Console with base plate with dovetail profile
PS051003E	Power Supply 5 V

RELATED PRODUCTS

LASER MODULES SERIES 13LRM

- Macro Line Generator, fan angle
- Uniform intensity distribution
- Extended depth of focus

LASER MODULES SERIES 13LN

- Micro Line, **small** fan angle
- Uniform intensity distribution
- Thin lines

**LASER MODULES
SERIES 5LM+25CM**

- **Compact** Micro Line, **small** fan angle
- Gaussian intensity distribution

**LASER MODULES
SERIES 5LP+25CM**

- **Compact** Micro Line, **large** fan angle
- Gaussian intensity distribution

**LASER MODULES
SERIES 5LM**

- Micro Line, **small** fan angle
- Gaussian intensity distribution

**LASER MODULES
SERIES 5LP**

- Micro Line, **large** fan angle
- Gaussian intensity distribution

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CONTACT

For more information please contact:

Schäfter + Kirchhoff GmbH

Kieler Str. 212

22525 Hamburg

Germany

Tel: +49 40 85 39 97-0

Fax: +49 40 85 39 97-79

info@sukhamburg.de

www.sukhamburg.com

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