13LR40-S500+55CM-520-51-O11-T15-P-6

Laser Micro Line Generator with a fan angle

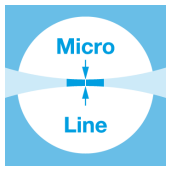


FEATURES

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

- Line length: 357 mm
- Line width: 120 µm
- Wavelength: 520 nm
- Working distance: 492 mm

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



DESCRIPTION

The laser diode beam source type 13LR40-S500+55CM-520-51-O11-T15-P-6 has a fan angle of 40° 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.

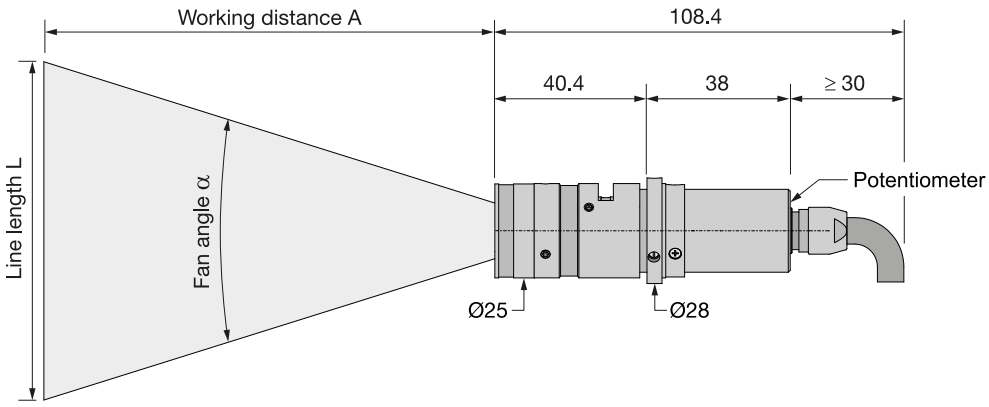
A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

TECHNICAL DATA

13LR40-S500+55CM-520-51-O11-T15-P-6

Series	13LR	
Order Code	13LR40-S500+55CM-520-51-O11-T15-P-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	520 +10/-5 nm	
Laser output power	51 mW	
Laser safety class	3B	
Fan angle α	40 deg	
Focussing range	415-815 mm	
Working distance	492 mm	
Line length	357 mm	
Line width	0.12 mm	
Rayleigh range	43.7 mm	
Edge intensity	80 %	
Diameter laser module	25/28 mm	
Module length	78.4 mm	
Installation length	600.4 mm	
Cable length	1.5 m	
Connector type	Lumberg SV50 IEC 61076-2-106	
Supply voltage	5 ± 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 µs	0.5/0.2 µs
Rise / Fall time	40000/40000 µs	0.5/0.5 µs

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



DOWNLOADS

930412000105.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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