13LR12-M125+55CM-445-71-G02-T15-PS-7

Laser Micro Line Generator with a fan angle



FEATURES

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

- Line length: 26 mm
- Line width: 27 µm
- Wavelength: 445 nm
- Working distance: 120 mm
- Micro Line Generator for small laser line widths and high power density in the focal plane
- With RS232 interface



DESCRIPTION

The laser diode beam source type 13LR12-M125+55CM-445-71-G02-T15-PS-7 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 <u>chain of equidistant dots</u> 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 <u>type PS</u> with micro-controller for control of the laser output power and serial interface (RS232). The output power can be controlled using the <u>modulation input ports (TTL and analog)</u> 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.

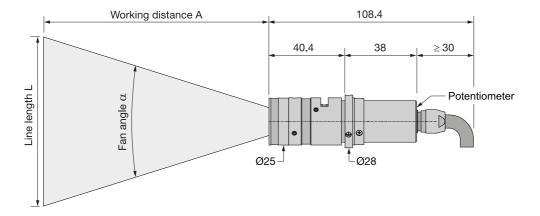


A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

TECHNICAL DATA

13LR12-M125+55CM-445-71-G02-T15-PS-7

Series		13LR
Order Code	13LR12-M125+55CM-445-71-G02-T15-PS-7	
Line profile	Constant Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	445 +15/-5 nm	
Laser output power	71 mW	
Laser safety class	3В	
Fan angle α	12 deg	
Focussing range	105-205 mm	
Working distance	120 mm	
Line length	26 mm	
Line width	0.027 mm	
Rayleigh range	1.83 mm	
Edge intensity	80 %	
Diameter laser module	25/28 mm	
Module length	78.4 mm	
Installation length	228.4 mm	
Cable length	1.5 m	
Connector type	Lumberg SV70 IEC 61076-2-106	
Supply voltage	5 ± 0.2 V	
Max. current consumption	0.5A	
Working temperature	15 - 40 °C	
Modulation inputs	Analog	TTL
Input resistance	9 kOhm	9 kOhm
Max. modulation frequency	0.001 kHz	250 kHz
Modulation delay ON/OFF	3000/3000 μs	0.6/0.2 μs
Rise / Fall time	200000/200000 μs	0.2/0.2 μs
Interface		RS232



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

DOWNLOADS



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
PS051007E	Power Supply 5 V for laser modules with RS232 interface

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



DATA SHEET

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

This is a printout of the page <u>https://sukhamburg.com/products/details/13LR12-M125_55CM-445-71-G02-T15-PS-7</u> from 5/3/2024

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