

## 13LR12-S250+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: 52 mm
- Line width: 50  $\mu\text{m}$
- Wavelength: 445 nm
- Working distance: 248 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-S250+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 [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 PS](#) with micro-controller for control of the laser output power and serial interface (RS232). 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-S250+55CM-445-71-G02-T15-PS-7

Series	13LR	
Order Code	13LR12-S250+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	3B	
Fan angle $\alpha$	12 deg	
Focussing range	205-415 mm	
Working distance	248 mm	
Line length	52 mm	
Line width	0.05 mm	
Rayleigh range	7.34 mm	
Edge intensity	80 %	
Diameter laser module	25/28 mm	
Module length	75.9 mm	
Installation length	353.9 mm	
Cable length	1.5 m	
Connector type	Lumberg SV70 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	0.001 kHz	250 kHz
Modulation delay ON/OFF	3000/3000 $\mu$ s	0.6/0.2 $\mu$ s
Rise / Fall time	200000/200000 $\mu$ s	0.2/0.2 $\mu$ s
Interface	RS232	

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
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

**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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