

## 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  $\mu\text{m}$
- 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 [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-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	3B	
Fan angle $\alpha$	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 $\pm$ 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



[930412000105.pdf](#)

## ACCESSORIES

<b>50HD-15</b>	Hex key WS 1.5
<b>9D-12</b>	Screwdriver WS 1.2
<b>13MK-25-36-10-F</b>	Mounting Console with flat base plate
<b>13MK-25-36-10-M</b>	Mounting Console with base plate with dovetail profile
<b>PS051007E</b>	Power Supply 5 V for laser modules with RS232 interface

## RELATED PRODUCTS

<b>LASER MODULES SERIES 13LRM</b>	<ul style="list-style-type: none"> <li>▪ Macro Line Generator, fan angle</li> <li>▪ Uniform intensity distribution</li> <li>▪ Extended depth of focus</li> </ul>
---------------------------------------	--

<b>LASER MODULES SERIES 13LN</b>	<ul style="list-style-type: none"> <li>▪ Micro Line, <b>small</b> fan angle</li> <li>▪ Uniform intensity distribution</li> <li>▪ Thin lines</li> </ul>
--------------------------------------	--

**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 [https://sukhamburg.com/products/details/13LR12-M125\\_55CM-445-71-G02-T15-PS-7](https://sukhamburg.com/products/details/13LR12-M125_55CM-445-71-G02-T15-PS-7) from 5/3/2024

## 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](mailto:info@sukhamburg.de)

[www.sukhamburg.com](http://www.sukhamburg.com)

## LEGAL NOTICE

**Copyright 2020 Schäfter+Kirchhoff GmbH. All rights reserved.**

Text, image, graphic, sound, video and animation files and their arrangement on Schäfter+Kirchhoff GmbH webpages are protected by copyright and other protective laws. The content may not be copied for commercial use or reproduced, modified or used on other websites. [\[more\]](#)