

## 13LRM40-M125-1.5+55CM-445-50-G02-T15-P-6

Laser Macro Line Generator with a fan angle

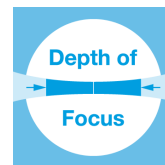


### FEATURES

Laser line with a fan angle, approx. uniform intensity distribution and extended depth of focus.

- Line length: 0 mm
- Line width: 54  $\mu\text{m}$
- Wavelength: 445 nm
- Working distance: 111 mm
- Depth of focus: 13.8 mm

- Macro Line Generator for extended depth of focus



## DESCRIPTION

The laser diode beam source type 13LRM40-M125-1.5+55CM-445-50-G02-T15-P-6 has a fan angle of 40° with a constant line width and approx. uniform intensity distribution along the laser line as well as an extended depth of focus.

The fine-structure is a [chain of equidistant dots](#) with a spacing of approx. 1/2 the line width. The line width is constant along the laser line. Across the laser line the intensity distribution is approx. 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

13LRM40-M125-1.5+55CM-445-50-G02-T15-P-6

Series	13LRM	
Order Code	13LRM40-M125-1.5+55CM-445-50-G02-T15-P-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Macro Line	
Wavelength	445 +15/-5 nm	
Laser output power	50 mW	
Laser safety class	3B	
Fan angle $\alpha$	40 deg	
Focussing range	95-195 mm	
Working distance	111 mm	
Line length	0 mm	
Line width	0.054 mm	
Depth of focus	13.8 mm	
Edge intensity	80 %	
Diameter laser module	25/28 mm	
Module length	91.3 mm	
Installation length	232.3 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 $\mu$ s	0.5/0.2 $\mu$ s
Rise / Fall time	40000/40000 $\mu$ s	0.5/0.5 $\mu$ s

## DOWNLOADS

[13LRM+55CM+234.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 13LR	<ul style="list-style-type: none"><li>▪ Micro Line Generator, fan angle</li><li>▪ Uniform intensity distribution</li></ul>
LASER MODULES SERIES 13LNM	<ul style="list-style-type: none"><li>▪ Micro Line Generator, <b>small</b> fan angle</li><li>▪ Uniform intensity distribution</li><li>▪ Extended depth of focus</li></ul>
LASER MODULES SERIES 5LMM+25CM	<ul style="list-style-type: none"><li>▪ <b>Compact</b> Micro Line, <b>small</b> fan angle</li><li>▪ Gaussian intensity distribution</li><li>▪ Extended depth of focus</li></ul>
LASER MODULES SERIES 5LPM+25CM	<ul style="list-style-type: none"><li>▪ <b>Compact</b> Macro Line, <b>large</b> fan angle</li><li>▪ Gaussian intensity distribution</li><li>▪ Extended depth of focus</li></ul>
LASER MODULES SERIES 5LMM	<ul style="list-style-type: none"><li>▪ Macro Line, <b>small</b> fan angle</li><li>▪ Gaussian intensity distribution</li><li>▪ Extended depth of focus</li></ul>
LASER MODULES SERIES 5LPM	<ul style="list-style-type: none"><li>▪ Macro Line, <b>large</b> fan angle</li><li>▪ Gaussian intensity distribution</li><li>▪ Extended depth of focus</li></ul>

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