

## 13LR40-M125+55CM-405-12-Y07-T15-C-6

Laser Micro Line Generator with a fan angle



### FEATURES

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

- Line length: 90 mm
- Line width: 21  $\mu\text{m}$
- Wavelength: 405 nm
- Working distance: 120 mm

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



## DESCRIPTION

The laser diode beam source type 13LR40-M125+55CM-405-12-Y07-T15-C-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 C](#) 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-M125+55CM-405-12-Y07-T15-C-6

Series	13LR	
Order Code	13LR40-M125+55CM-405-12-Y07-T15-C-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	405 +5/-5 nm	
Laser output power	12 mW	
Laser safety class	3B	
Fan angle $\alpha$	40 deg	
Focussing range	100-205 mm	
Working distance	120 mm	
Line length	90 mm	
Line width	0.021 mm	
Rayleigh range	1.13 mm	
Edge intensity	80 %	
Diameter laser module	25/28 mm	
Module length	82.9 mm	
Installation length	232.9 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	0 - 40 °C	
Modulation inputs	Analog	TTL
Input resistance	22 kOhm	22 kOhm
Max. modulation frequency	100 kHz	100 kHz
Modulation delay ON/OFF	1/0.5 $\mu$ s	2/1 $\mu$ s
Rise / Fall time	3/2 $\mu$ s	3/2 $\mu$ s

## 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	<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>
LASER MODULES SERIES 13LN	<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	<ul style="list-style-type: none"><li>▪ <b>Compact</b> Micro Line, <b>small</b> fan angle</li><li>▪ Gaussian intensity distribution</li></ul>
LASER MODULES SERIES 5LP+25CM	<ul style="list-style-type: none"><li>▪ <b>Compact</b> Micro Line, <b>large</b> fan angle</li><li>▪ Gaussian intensity distribution</li></ul>
LASER MODULES SERIES 5LM	<ul style="list-style-type: none"><li>▪ Micro Line, <b>small</b> fan angle</li><li>▪ Gaussian intensity distribution</li></ul>
LASER MODULES SERIES 5LP	<ul style="list-style-type: none"><li>▪ Micro Line, <b>large</b> fan angle</li><li>▪ Gaussian intensity distribution</li></ul>

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from 4/26/2024

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