

13LRM12-S000-1.5+55CM-445-47-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: 409 mm
- Line width: 860 μm
- Wavelength: 445 nm
- Working distance: 2000 mm
- Depth of focus: 3000 mm

- Macro Line Generator for extended depth of focus



DESCRIPTION

The laser diode beam source type 13LRM12-S000-1.5+55CM-445-47-G02-T15-P-6 has a fan angle of 12° 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

13LRM12-S000-1.5+55CM-445-47-G02-T15-P-6

Series	13LRM	
Order Code	13LRM12-S000-1.5+55CM-445-47-G02-T15-P-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Macro Line	
Wavelength	445 +15/-5 nm	
Laser output power	47 mW	
Laser safety class	3B	
Fan angle α	12 deg	
Focussing range	1330-inf mm	
Working distance	2000 mm	
Line length	409 mm	
Line width	0.86 mm	
Depth of focus	3000 mm	
Edge intensity	80 %	
Diameter laser module	25/28 mm	
Module length	86.8 mm	
Installation length	2116.8 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 μ s	0.5/0.2 μ s
Rise / Fall time	40000/40000 μ s	0.5/0.5 μ s

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

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