

13LRM47-S250-1.5+55CM-830-21-H19-T12-C-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: 200 mm
- Line width: 200 μm
- Wavelength: 830 nm
- Working distance: 240 mm
- Depth of focus: 103 mm

- Macro Line Generator for extended depth of focus



DESCRIPTION

The laser diode beam source type 13LRM47-S250-1.5+55CM-830-21-H19-T12-C-6 has a fan angle of 47° 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 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

13LRM47-S250-1.5+55CM-830-21-H19-T12-C-6

Series	13LRM	
Order Code	13LRM47-S250-1.5+55CM-830-21-H19-T12-C-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Macro Line	
Wavelength	830 +10/-10 nm	
Laser output power	21 mW	
Laser safety class	3B	
Fan angle α	47 deg	
Focussing range	195-355 mm	
Working distance	240 mm	
Line length	200 mm	
Line width	0.2 mm	
Depth of focus	103 mm	
Edge intensity	80 %	
Diameter laser module	25/28 mm	
Module length	86.8 mm	
Installation length	356.8 mm	
Cable length	1.5 m	
Connector type	Lumberg SV50 IEC 61076-2-106	
Supply voltage	5 \pm 0.2 V	
Max. current consumption	0.25 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 μ s	2/1 μ s
Rise / Fall time	3/2 μ s	3/2 μ s

DOWNLOADS



[930412000124.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">▪ 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

This is a printout of the page https://sukhamburg.com/products/details/13LRM47-S250-1_5_55CM-830-21-H19-T12-C-6 from 4/25/2024

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

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. [\[more\]](#)