

13LN165-S500+90CM-830-16-H19-M60-C-6

Micro Line Generator with a fan angle



FEATURES

Laser line with a fan angle, approx. uniform intensity distribution and very thin lines.

- Line length: 40 mm
- Line width: 38 μm
- Wavelength: 830 nm
- Working distance: 424 mm

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



DESCRIPTION

The laser diode beam source type 13LN165-S500+90CM-830-16-H19-M60-C-6 has a fan angle of 3.4° and approx. uniform intensity distribution along the laser line.

More precisely, it is Gaussian clipped by an aperture with an edge intensity of 76 %. Across the laser line the intensity distribution is Gaussian. The line width is constant along 60 % of the central area, outside this area the line width differs up to 30 %.

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.

For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.

TECHNICAL DATA

13LN165-S500+90CM-830-16-H19-M60-C-6

Series	13LN165	
Order Code	13LN165-S500+90CM-830-16-H19-M60-C-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	830 +10/-10 nm	
Laser output power	16 mW	
Laser safety class	3B	
Fan angle α	3.4 deg	
Focussing range	424-424 mm	
Working distance	424 mm	
Line length	40 mm	
Line width	0.038 mm	
Rayleigh range	2.7 mm	
Edge intensity	76 %	
Diameter laser module	25/28 mm	
Module length	121.9 mm	
Installation length	575.9 mm	
Cable length	1.5 m	
Connector type	Lumberg SV50 IEC 61076-2-106	
Supply voltage	5 \pm 0.2 V	
Max. current consumption	0.25 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

ACCESSORIES

9D-12

Screwdriver WS 1.2

PS051003E

Power Supply 5 V

RELATED PRODUCTS

LASER MODULES SERIES 13LNM

- Micro Line Generator, **small** fan angle
- Uniform intensity distribution
- Extended depth of focus

LASER MODULES SERIES LNC-13LN

- Micro Line, **small** fan angle
- Uniform intensity distribution
- Thin lines
- Low noise

LASER MODULES SERIES 13LR

- Micro Line Generator, fan angle
- Uniform intensity distribution

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/13LN165-S500_90CM-830-16-H19-M60-C-6 from 5/5/2024

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. [\[more\]](#)