13LN165-S250+90CM-830-16-H19-M60-C-6

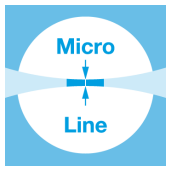
Micro Line Generator with a fan angle

FEATURES

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

- Line length: 20 mm
- Line width: 21 µm
- Wavelength: 830 nm
- Working distance: 249 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-S250+90CM-830-16-H19-M60-C-6 has a fan angle of 1.7° 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 are, 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-S250+90CM-830-16-H19-M60-C-6

Series	13LN165	
Order Code	13LN165-S250+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	1.7 deg	
Focussing range	249-249 mm	
Working distance	249 mm	
Line length	20 mm	
Line width	0.021 mm	
Rayleigh range	0.674 mm	
Edge intensity	76 %	
Diameter laser module	25/28 mm	
Module length	121.9 mm	
Installation length	400.9 mm	
Cable length	1.5 m	
Connector type	Lumberg SV50 IEC 61076-2-106	
Supply voltage	5 ± 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 µs	2/1 µs
Rise / Fall time	3/2 µs	3/2 µs

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

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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

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