13LN165-S250+90CM-639-8-H18-M60-CS-7

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: 16 µm
- Wavelength: 639 nm
- Working distance: 249 mm

- Micro Line Generator for small laser line widths and high power density in the focal plane
- With RS232 interface

DESCRIPTION

The laser diode beam source type 13LN165-S250+90CM-639-8-H18-M60-CS-7 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 87 %. 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 CS for control of the laser output power and serial interface (RS232). 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-639-8-H18-M60-CS-7

Series		13LN165
Order Code		13LN165-S250+90CM-639-8-H18-M60-CS-7
Line profile		Constant Intensity Distribution
Line type		Laser Micro Line
Wavelength		639 +10/-10 nm
Laser output power		8 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		0.016 mm
Rayleigh range		0.519 mm
Edge intensity		87 %
Diameter laser module		25/28 mm
Module length		121.9 mm
Installation length		400.9 mm
Cable length		1.5 m
Connector type		Lumberg SV70 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	9 kOhm	9 kOhm
Max. modulation frequency	0.001 kHz	250 kHz
Modulation delay ON/OFF	3000/3000 µs	0.5/0.2 µs
Rise / Fall time	200000/200000 µs	0.8/0.4 µs
Interface		RS232

ACCESSORIES

9D-12	Screwdriver WS 1.2
PS051007E	Power Supply 5 V for laser modules with RS232 interface

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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