13LN40-M125+90CM-685-17-H13-M60-C-6

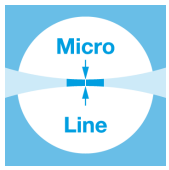
Micro Line Generator with a fan angle

FEATURES

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

- Line length: 38 mm
- Line width: 9 µm
- Wavelength: 685 nm
- Working distance: 119 mm

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



DESCRIPTION

The laser diode beam source type 13LN40-M125+90CM-685-17-H13-M60-C-6 has a fan angle of 11.2° and approx. uniform intensity distribution along the laser line.

More precisely, it is Gaussian clipped by an aperture with an edge intensity of 75 %. 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

13LN40-M125+90CM-685-17-H13-M60-C-6

Series		13LN40
Order Code		13LN40-M125+90CM-685-17-H13-M60-C-6
Line profile		Constant Intensity Distribution
Line type		Laser Micro Line
Wavelength		685 +10/-10 nm
Laser output power		17 mW
Laser safety class		3B
Fan angle α		11.2 deg
Focussing range		119-119 mm
Working distance		119 mm
Line length		38 mm
Line width		0.009 mm
Rayleigh range		0.139 mm
Edge intensity		75 %
Diameter laser module		25/28 mm
Module length		125.9 mm
Installation length		274.9 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

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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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