

## 13LN40-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: 76 mm
- Line width: 21  $\mu\text{m}$
- Wavelength: 830 nm
- Working distance: 244 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-S250+90CM-830-16-H19-M60-C-6 has a fan angle of  $14.3^\circ$  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

13LN40-S250+90CM-830-16-H19-M60-C-6

Series	13LN40	
Order Code	13LN40-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 $\alpha$	14.3 deg	
Focussing range	244-244 mm	
Working distance	244 mm	
Line length	76 mm	
Line width	0.021 mm	
Rayleigh range	0.674 mm	
Edge intensity	76 %	
Diameter laser module	25/28 mm	
Module length	125.9 mm	
Installation length	399.9 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 $\mu$ s	2/1 $\mu$ s
Rise / Fall time	3/2 $\mu$ s	3/2 $\mu$ s

## DOWNLOADS

[951210000056.pdf](#)

## 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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