

## 13LN165-S1000+90CM-785-51-Q06-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: 80 mm
- Line width: 71  $\mu\text{m}$
- Wavelength: 785 nm
- Working distance: 977 mm

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- 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-S1000+90CM-785-51-Q06-M60-CS-7 has a fan angle of 3.8° and approx. uniform intensity distribution along the laser line.

More precisely, it is Gaussian clipped by an aperture with an edge intensity of 61 %. 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 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-S1000+90CM-785-51-Q06-M60-CS-7

Series	13LN165	
Order Code	13LN165-S1000+90CM-785-51-Q06-M60-CS-7	
Line profile	Constant Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	785 +10/-10 nm	
Laser output power	51 mW	
Laser safety class	3B	
Fan angle $\alpha$	3.8 deg	
Focussing range	977-977 mm	
Working distance	977 mm	
Line length	80 mm	
Line width	0.071 mm	
Rayleigh range	10.2 mm	
Edge intensity	61 %	
Diameter laser module	25/28 mm	
Module length	121.9 mm	
Installation length	1128.9 mm	
Cable length	1.5 m	
Connector type	Lumberg SV70 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	9 kOhm	9 kOhm
Max. modulation frequency	0.001 kHz	250 kHz
Modulation delay ON/OFF	3000/3000 $\mu$ s	0.5/0.2 $\mu$ s
Rise / Fall time	200000/200000 $\mu$ s	0.8/0.4 $\mu$ s
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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