

## 13LNM165-S1000-7+90CM-685-12-H13-M60-C-6

Macro Line Generator with a fan angle



### FEATURES

Laser line with a fan angle, approx. uniform intensity distribution and extended depth of focus.

- Line length: 80 mm
- Line width: 141  $\mu\text{m}$
- Wavelength: 685 nm
- Working distance: 964.5 mm
- Depth of focus: 62.3 mm

- Macro Line Generator for extended depth of focus



## DESCRIPTION

The laser diode beam source type 13LNM165-S1000-7+90CM-685-12-H13-M60-C-6 has a fan angle of 3.8°, approx. uniform intensity distribution along the laser line and extended depth of focus.

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 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

13LNM165-S1000-7+90CM-685-12-H13-M60-C-6

Series	13LNM165	
Order Code	13LNM165-S1000-7+90CM-685-12-H13-M60-C-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Macro Line	
Wavelength	685 +10/-10 nm	
Laser output power	12 mW	
Laser safety class	3B	
Fan angle $\alpha$	3.8 deg	
Focussing range	964.5-964.5 mm	
Working distance	964.5 mm	
Line length	80 mm	
Line width	0.141 mm	
Depth of focus	62.3 mm	
Edge intensity	75 %	
Diameter laser module	25/28 mm	
Module length	134.4 mm	
Installation length	1128.9 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



[13LNM+90CM+205.pdf](#)

## ACCESSORIES

9D-12

Screwdriver WS 1.2

PS051003E

Power Supply 5 V

## RELATED PRODUCTS

### LASER MODULES SERIES 13LN

- Micro Line, **small** fan angle
- Uniform intensity distribution
- Thin lines

### LASER MODULES SERIES LNC-13LNM

- Macro Line Generator, **small** fan angle
- Uniform intensity distribution
- Extended depth of focus
- Low noise

### LASER MODULES SERIES 13LRM

- Macro Line Generator, fan angle
- Uniform intensity distribution
- Extended depth of focus

### LASER MODULES SERIES 5LMM+25CM

- **Compact** Micro Line, **small** fan angle
- Gaussian intensity distribution
- Extended depth of focus

### LASER MODULES SERIES 5LPM+25CM

- **Compact** Macro Line, **large** fan angle
- Gaussian intensity distribution
- Extended depth of focus

### LASER MODULES SERIES 5LMM

- Macro Line, **small** fan angle
- Gaussian intensity distribution
- Extended depth of focus

### LASER MODULES SERIES 5LPM

- Macro Line, **large** fan angle
- Gaussian intensity distribution
- Extended depth of focus

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