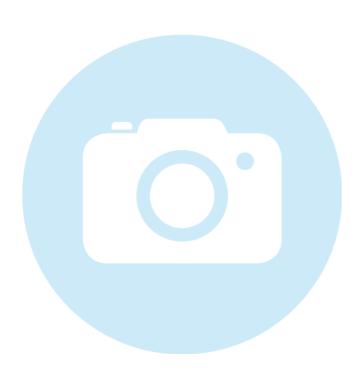
#### 13LN165-S1000+90CR-635-4-H10-M60-C-6

Micro Line Generator with a fan angle



#### FEATURES Laser line with a fan angle, approx. uniform intensity distribution and very thin lines. • Line length: 80 mm

- Line width: 58 µm
- Wavelength: 635 nm
- Working distance: 977 mm
- Micro Line Generator for small laser line widths and high power density in the focal plane



# DESCRIPTION

The laser diode beam source type 13LN165-S1000+90CR-635-4-H10-M60-C-6 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 84 %. 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 <u>type C</u> for control of the laser output power. The output power can be controlled using the <u>modulation input ports (TTL and analog)</u> 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+90CR-635-4-H10-M60-C-6

Series		13LN165
Order Code	13LN165-S1000+90CR-635-4-H10-M60-C-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	635 +10/-10 nm	
Laser output power	4 mW	
Laser safety class	3R	
Fan angle α	3.8 deg	
Focussing range	977-977 mm	
Working distance	king distance 977 mm	
Line length	80 mm	
Line width	0.058 mm	
Rayleigh range	8.25 mm	
Edge intensity	84 %	
Diameter laser module	25/28 mm	
Module length	105.9 mm	
Installation length	1082.9 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

### ACCESSORIES

9D-12

Screwdriver WS 1.2



Schäfter+Kirchhoff

PS051003E

**SERIES 5LP** 

Power Supply 5 V

### **RELATED PRODUCTS**

LASER MODULES SERIES 13LNM	<ul> <li>Micro Line Generator, small fan angle</li> <li>Uniform intensity distribution</li> <li>Extended depth of focus</li> </ul>
LASER MODULES SERIES LNC-13LN	<ul> <li>Micro Line, small fan angle</li> <li>Uniform intensity distribution</li> <li>Thin lines</li> <li>Low noise</li> </ul>
LASER MODULES SERIES 13LR	<ul> <li>Micro Line Generator, fan angle</li> <li>Uniform intensity distribution</li> </ul>
LASER MODULES SERIES 5LM+25CM	<ul> <li>Compact Micro Line, small fan angle</li> <li>Gaussian intensity distribution</li> </ul>
LASER MODULES SERIES 5LP+25CM	<ul> <li>Compact Micro Line, large fan angle</li> <li>Gaussian intensity distribution</li> </ul>
LASER MODULES SERIES 5LM	<ul> <li>Micro Line, small fan angle</li> <li>Gaussian intensity distribution</li> </ul>
LASER MODULES	<ul> <li>Micro Line, large fan angle</li> </ul>

Gaussian intensity distribution



### **DATA SHEET**

This is a printout of the page <u>https://sukhamburg.com/products/details/13LN165-S1000\_90CR-635-4-H10-M60-C-6</u> from 5/2/2024

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