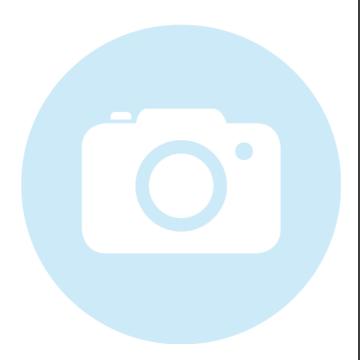


## 13LN165-S500+90CM-785-51-Q06-M60-CS-7

Micro Line Generator with a fan angle



#### **FEATURES**

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

Line length: 40 mm
Line width: 36 μm
Wavelength: 785 nm
Working distance: 424 mm

- 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-S500+90CM-785-51-Q06-M60-CS-7 has a fan angle of 3.4° 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 are, outside this area the line width differs up to 30 %.

The laser has integrated electronics <u>type CS</u> for control of the laser output power and serial interface (RS232). 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-S500+90CM-785-51-Q06-M60-CS-7

Series	13LN165	
Order Code	13LN165-S500+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 α	3.4 deg	
Focussing range	424-424 mm	
Working distance	424 mm	
Line length	40 mm	
Line width	0.036 mm	
Rayleigh range	2.55 mm	
Edge intensity	61 %	
Diameter laser module	25/28 mm	
Module length	121.9 mm	
Installation length	575.9 mm	
Cable length	1.5 m	
Connector type	Lumberg SV70 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	9 kOhm	9 kOhm
Max. modulation frequency	0.001 kHz	250 kHz
Modulation delay ON/OFF	3000/3000 μs	0.5/0.2 μs
Rise / Fall time	200000/200000 μs	0.8/0.4 μs
Interface		RS232

# **ACCESSORIES**



Screwdriver WS 1.2 9D-12

PS051007E Power Supply 5 V for laser modules with RS232

interface

### **RELATED PRODUCTS**

LASER MODULES ■ Micro Line Generator, small fan angle **SERIES 13LNM** 

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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