

### 13LR40-S500+55CM-635-10-H10-T12-CS-7

Laser Micro Line Generator with a fan angle



#### **FEATURES**

Laser line with a fan angle and approx. uniform intensity distribution.

Line length: 357 mm
Line width: 142 μm
Wavelength: 635 nm
Working distance: 492 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 13LR40-S500+55CM-635-10-H10-T12-CS-7 has a fan angle of 40° with a constant line width and approx. uniform intensity distribution along the laser line.

The fine-structure is a <u>chain of equidistant dots</u> with a spacing of approx. the line width. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

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.

The working distance can be adjusted by adjusting the focus setting. Please note that beam parameters like line length and line width increase proportionally to the working distance.



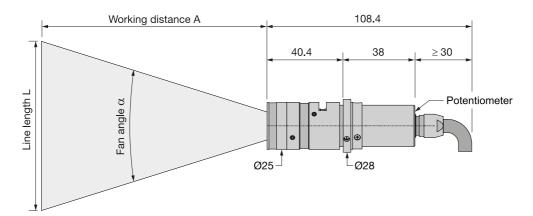
A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

# **TECHNICAL DATA**

13LR40-S500+55CM-635-10-H10-T12-CS-7

Series 13LR		
Order Code	13LR40-S500+55CM-635-10-H10-T12-CS-7	
Line profile	Constant Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	635 +10/-10 nm	
Laser output power	10 mW	
Laser safety class	3В	
Fan angle $\alpha$	40 deg	
Focussing range	415-815 mm	
Working distance	492 mm	
Line length	357 mm	
Line width	0.142 mm	
Rayleigh range	50.1 mm	
Edge intensity	80 %	
Diameter laser module	25/28 mm	
Module length	78.4 mm	
Installation length	600.4 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
nterface RS232		

Dimensions (for a complete dimensional drawing please refer to the downloads section)



### **DOWNLOADS**



## **ACCESSORIES**

50HD-15 Hex key WS 1.5

9D-12 Screwdriver WS 1.2

Mounting Console with flat base plate 13MK-25-36-10-F

13MK-25-36-10-M Mounting Console with base plate with dovetail

profile

Power Supply 5 V for laser modules with RS232 PS051007E

interface

### **RELATED PRODUCTS**

LASER MODULES Macro Line Generator, fan angle **SERIES 13LRM** Uniform intensity distribution

Extended depth of focus

LASER MODULES • Micro Line, small fan angle **SERIES 13LN** 

Uniform intensity distribution

Thin lines



LASER MODULES • Compact Micro Line, small fan angle

SERIES 5LM+25CM • Gaussian intensity distribution

LASER MODULES • Compact Micro Line, large fan angle

SERIES 5LP+25CM • Gaussian intensity distribution

**LASER MODULES**• Micro Line, **small** fan angle

SERIES 5LM • Gaussian intensity distribution

LASER MODULES • Micro Line, large fan angle

SERIES 5LP • Gaussian intensity distribution

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