

### 13LR40-S250+55CM-635-9-H10-T15-CS-7

Laser Micro Line Generator with a fan angle



#### **FEATURES**

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

Line length: 180 mm
Line width: 63 μm
Wavelength: 635 nm
Working distance: 245 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-S250+55CM-635-9-H10-T15-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.



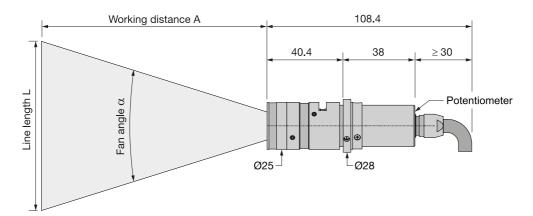
A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

# **TECHNICAL DATA**

13LR40-S250+55CM-635-9-H10-T15-CS-7

Line profile       Constant Intensity Distribution         Line type       Laser Micro Line         Wavelength       635 ±10/-10 nm         Laser output power       9 mW         Laser safety class       3B         Fan angle α       40 deg         Focussing range       205-415 mm         Working distance       245 mm         Line length       180 mm         Line width       0.063 mm         Rayleigh range       8.02 mm         Edge intensity       80 %         Diameter laser module       25/28 mm         Module length       78.4 mm         Installation length       353.4 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 <th>Series</th> <th></th> <th>13LR</th>	Series		13LR
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<u> </u>	Modulation delay ON/OFF	3000/3000 μs	0.5/0.2 μs
Interface DC222	Rise / Fall time	200000/200000 μs	0.8/0.4 μs
RS232	Interface	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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