

#### 13LR12-S250+55CM-639-21-H18-T12-C-6

Laser Micro Line Generator with a fan angle



#### **FEATURES**

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

Line length: 52 mm
Line width: 79 μm
Wavelength: 639 nm
Working distance: 248 mm

 Micro Line Generator for small laser line widths and high power density in the focal plane



#### DESCRIPTION

The laser diode beam source type 13LR12-S250+55CM-639-21-H18-T12-C-6 has a fan angle of 12° 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 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.

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.



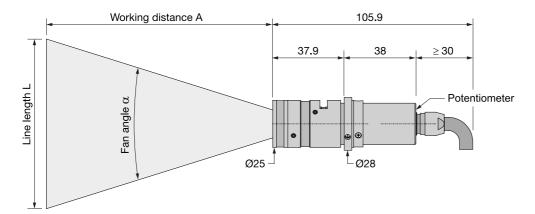
A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

# **TECHNICAL DATA**

13LR12-S250+55CM-639-21-H18-T12-C-6

eries 13LR			
Order Code	13LR12-S250+55CM-639-21-H18-T12-C-6		
Line profile	Constant Intensity Distribution		
Line type	Laser Micro Line		
Wavelength	639 +10/-10 nm		
Laser output power	21 mW		
Laser safety class	3В		
Fan angle α	12 deg		
Focussing range	205-415 mm		
Working distance	248 mm		
Line length	52 mm		
Line width	0.079 mm		
Rayleigh range	12.6 mm		
Edge intensity	80 %		
Diameter laser module	25/28 mm		
Module length	75.9 mm		
Installation length	353.9 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	

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

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

profile

Power Supply 5 V PS051003E

## **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

This is a printout of the page  $\underline{\text{https://sukhamburg.com/products/details/13LR12-S250}}$  55CM-639-21-H18-T12-C-6 from 5/2/2024

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