

13LR40-S500+55CM-639-19-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: 357 mm
Line width: 143 μm
Wavelength: 639 nm
Working distance: 492 mm

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



DESCRIPTION

The laser diode beam source type 13LR40-S500+55CM-639-19-H18-T12-C-6 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 $\underline{type\ C}$ for control of the laser output power. The output power can be controlled using the $\underline{modulation\ input\ ports\ (TTL\ and\ analog)}}$ 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.



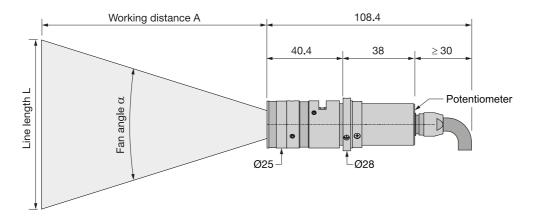
A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

TECHNICAL DATA

13LR40-S500+55CM-639-19-H18-T12-C-6

Series		13LR	
Order Code	13LR40-S500+55CM-639-19-H18-T12-C-6		
Line profile	Constant Intensity Distribution		
Line type	Laser Micro Line		
Wavelength	639 +10/-10 nm		
Laser output power	19 mW		
Laser safety class	3B		
Fan angle α	40 deg		
Focussing range	415-815 mm		
Working distance	492 mm		
Line length	357 mm		
Line width	0.143 mm		
Rayleigh range	50.5 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 SV50 II	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	
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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

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

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

profile

PS051003E Power Supply 5 V

RELATED PRODUCTS

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

Extended depth of focus

• Micro Line, small fan angle **LASER MODULES 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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