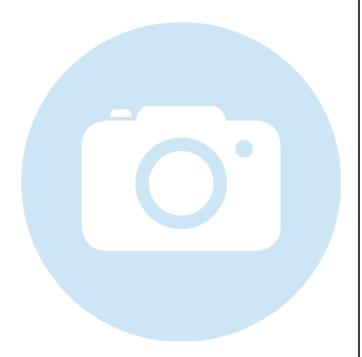


13LN165-S500+90CM-639-8-H18-M60-C-6

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: 29 μm
Wavelength: 639 nm
Working distance: 424 mm

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



DESCRIPTION

The laser diode beam source type 13LN165-S500+90CM-639-8-H18-M60-C-6 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 87 %. 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 $\underline{type\ C}$ 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.

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-639-8-H18-M60-C-6

Series	13LN165		
Order Code	13LN165-S500+90CM-639-8-H18-M60-C-6		
Line profile	Constant Intensity Distribution		
Line type	Laser Micro Line		
Wavelength	639 +10/-10 nm		
Laser output power	8 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	0.029 mm		
Rayleigh range	2.08 mm		
Edge intensity	87 %		
Diameter laser module	25/28 mm		
Module length	121.9 mm		
Installation length	575.9 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	

ACCESSORIES

9D-12 Screwdriver WS 1.2



PS051003E Power Supply 5 V

RELATED PRODUCTS

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

Uniform intensity distribution

Extended depth of focus

LASER MODULES SERIES LNC-13LN Micro Line, small fan angleUniform intensity distribution

Thin linesLow noise

LASER MODULES SERIES 13LR Micro Line Generator, fan angleUniform 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 angleGaussian intensity distribution

LASER MODULES SERIES 5LP Micro Line, large fan angleGaussian intensity distribution



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