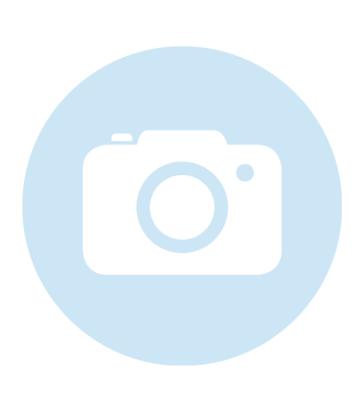
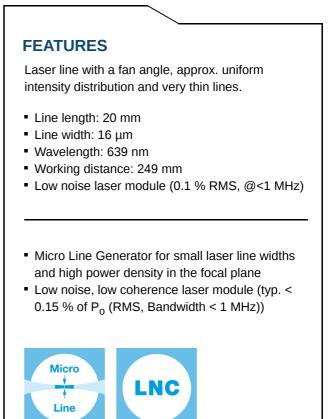
#### LNC-13LN165-S250+91CM-639-4-H18-M60-H-6

Low Noise Micro Line Generator with a fan angle





## DESCRIPTION

The laser diode beam source type LNC-13LN165-S250+91CM-639-4-H18-M60-H-6 has a fan angle of 1.7° 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 <u>type H</u> for control of the laser output power. It is a low noise laser source (0.1 % RMS,@<1 MHz) with reduced coherence length and operates mode-hopping free. Due to the reduced coherence length the speckle contrast might be lowered. Please note that this effect is smaller for smaller lines and spots. The output power can be controlled using the <u>modulation input ports (TTL and analog)</u> or manually using the potentiometer.

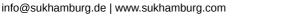


For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.

# **TECHNICAL DATA**

LNC-13LN165-S250+91CM-639-4-H18-M60-H-6

Series 13LN165		
Order Code	LNC-13LN165-S250+91CM-639-4-H18-M60-H-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	639 +10/-10 nm	
Laser output power	4 mW	
Laser safety class	3R	
n angle α 1.7 deg		
Focussing range	249-249 mm	
Working distance	249 mm	
Line length	20 mm	
Line width	0.016 mm	
Rayleigh range	0.519 mm	
Edge intensity	87 %	
Diameter laser module	25/28 mm	
Module length	131.4 mm	
Installation length	410.4 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	2/0.3 µs	1.5/0.1 μs
Rise / Fall time	1/1 µs	1/1 µs
<b>Noise (&lt; 1 MHZ RMS)</b> 0.1%		





#### ACCESSORIES

9D-12

Screwdriver WS 1.2

PS051003E

Power Supply 5 V

# **RELATED PRODUCTS**

LASER MODULES SERIES LNC-13LNM	<ul> <li>Macro Line Generator, small fan angle</li> <li>Uniform intensity distribution</li> <li>Extended depth of focus</li> <li>Low noise</li> </ul>
LASER MODULES SERIES 13LN	<ul> <li>Micro Line, small fan angle</li> <li>Uniform intensity distribution</li> <li>Thin lines</li> </ul>
LASER MODULES SERIES LNC-5LM	<ul> <li>Micro Line, small fan angle</li> <li>Gaussian intensity distribution</li> <li>Low noise</li> </ul>
LASER MODULES SERIES LNC-5LP	<ul> <li>Micro Line, large fan angle</li> <li>Gaussian intensity distribution</li> </ul>

Low noise

This is a printout of the page <u>https://sukhamburg.com/products/details/LNC-13LN165-S250\_91CM-639-4-H18-M60-H-6</u> from 5/6/2024

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