#### LNC-5LP80-S88+56CM-639-9-H18-A8-H-6

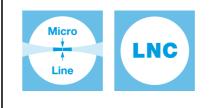
Low Noise Micro Line Generator with a large fan angle



#### FEATURES

Laser line with a large fan angle and Gaussian intensity distribution.

- Line length: 140 mm
- Line width: 38 μm
- Wavelength: 639 nm
- Working distance: 82 mm
- Low noise laser module (0.1 % RMS, @<1 MHz)</li>
- Micro Line Generator for small laser line widths and high power density in the focal plane
- Low noise, low coherence laser module (typ. < 0.15 % of P<sub>0</sub> (RMS, Bandwidth < 1 MHz))</li>



#### DESCRIPTION

The laser diode beam source type LNC-5LP80-S88+56CM-639-9-H18-A8-H-6 has a fan angle of 84°.

The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 38 %. 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 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.

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**

LNC-5LP80-S88+56CM-639-9-H18-A8-H-6

Series		5LP	
Order Code	LNC-5LP80-S88+56CM-639-9-H18-A8-H-6		
Line profile	Gaussian Intensity Distribution		
Line type	Laser Micro Line		
Wavelength	639 +10/-10 nm		
Laser output power	9 mW		
Laser safety class	3В		
Fan angle $\alpha$	84 deg		
Focussing range	70-125 mm		
Working distance		82 mm	
Line length	140 mm		
Line width	0.038 mm		
Rayleigh range	3.52 mm		
Edge intensity	38 %		
Diameter laser module	25/28 mm		
Module length	95.6 mm		
Installation length	207.6 mm		
Cable length	1.5 m		
Connector type	Lumberg SV50 I	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	



Noise (< 1 MHZ RMS)

0.1%

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





#### **DATA SHEET**

This is a printout of the page <u>https://sukhamburg.com/products/details/LNC-5LP80-S88\_56CM-639-9-H18-A8-H-6</u> from 5/2/2024

## CONTACT

For more information please contact: Schäfter + Kirchhoff GmbH Kieler Str. 212 22525 Hamburg Germany Tel: +49 40 85 39 97-0 Fax: +49 40 85 39 97-79

info@sukhamburg.de www.sukhamburg.com

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