LNC-5LM8-S88+56CM-450-24-O06-A7.5-HP-4

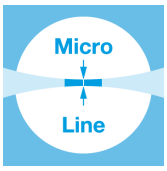
Low Noise Micro Line Generator with a fan angle

FEATURES

Laser line with a fan angle and Gaussian intensity distribution.

- Line length: 12 mm
- Line width: 30 µm
- Wavelength: 450 nm
- Working distance: 78 mm
- Low noise laser module (0.1 % RMS, @<1 MHz)

- 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_0 (RMS, Bandwidth < 1 MHz))



DESCRIPTION

The laser diode beam source type LNC-5LM8-S88+56CM-450-24-O06-A7.5-HP-4 has a fan angle of 8°.

The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 15 %. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics type HP with micro-controller 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 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

LNC-5LM8-S88+56CM-450-24-O06-A7.5-HP-4

Series	5LM	
Order Code	LNC-5LM8-S88+56CM-450-24-O06-A7.5-HP-4	
Line profile	Gaussian Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	450 +10/-10 nm	
Laser output power	24 mW	
Laser safety class	3B	
Fan angle α	8 deg	
Focussing range	65-120 mm	
Working distance	78 mm	
Line length	12 mm	
Line width	0.03 mm	
Rayleigh range	3.2 mm	
Edge intensity	15 %	
Diameter laser module	25/28 mm	
Module length	86.8 mm	
Installation length	194.8 mm	
Cable length	1.5 m	
Connector type	Lumberg SV40 IEC 61076-2-106	
Supply voltage	12 ± 0.5 V	
Max. current consumption	0.3 A	
Working temperature	15 - 40 °C	
Modulation inputs	Analog	TTL
Input resistance	9 kOhm	9 kOhm
Max. modulation frequency	0.001 kHz	300 kHz
Modulation delay ON/OFF	2000/500 µs	0.5/0.2 µs
Rise / Fall time	200000/200000 µs	0.8/0.3 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
PS120516E	Power Supply 12 V

RELATED PRODUCTS

LASER MODULES SERIES LNC-5LMM

- Macro Line, **small** fan angle
- Gaussian intensity distribution
- Extended depth of focus
- Low Noise

LASER MODULES SERIES 5LM

- Micro Line, **small** fan angle
- Gaussian intensity distribution

LASER MODULES SERIES LNC-13LN

- Micro Line, **small** fan angle
- Uniform intensity distribution
- Thin lines
- Low noise

LASER MODULES SERIES LNC-5LP

- Micro Line, **large** fan angle
- Gaussian intensity distribution
- Low noise

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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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