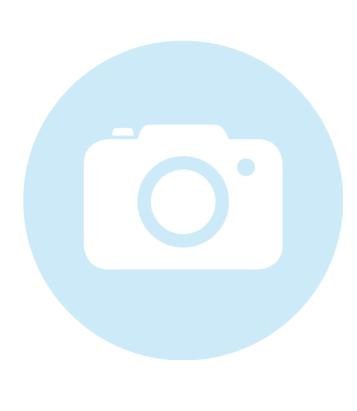
LNC-5LMM8-S150-1+56CM-405-25-X15-A7.5-HP-4

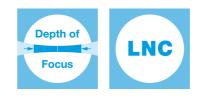
Low Noise Macro Line Generator with a fan angle



FEATURES

Laser line with a fan angle, Gaussian intensity distribution and extended depth of focus.

- Line length: 21.8 mm
- Line width: 88 μm
- Wavelength: 405 nm
- Working distance: 138 mm
- Depth of focus: 40.6 mm
- Low noise laser module (0.1 % RMS, @<1 MHz)
- Macro Line Generator for extended depth of focus
- Low noise, low coherence laser module (typ. < 0.15 % of P₀ (RMS, Bandwidth < 1 MHz))



DESCRIPTION

The laser diode beam source type LNC-5LMM8-S150-1+56CM-405-25-X15-A7.5-HP-4 has a fan angle of 8° and an extended depth of focus.

The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 10 %. The line width is constant along the laser line. Across the laser line the intensity distribution is approx. Gaussian.



The laser has integrated electronics <u>type HP</u> 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 <u>modulation input</u> <u>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-5LMM8-S150-1+56CM-405-25-X15-A7.5-HP-4

Series		5LMM	
Order Code	LNC-5LMM8-S150-1+56CM-405-25	-X15-A7.5-HP-4	
Line profile	Gaussian Inter	nsity Distribution	
Line type	L	aser Macro Line	
Wavelength		405 +5/-5 nm	
Laser output power		25 mW	
Laser safety class		3B	
Fan angle α		8 deg	
Focussing range		115-250 mm	
Working distance		138 mm	
Line length		21.8 mm	
Line width		0.088 mm	
Depth of focus		40.6 mm	
Edge intensity		10 %	
Diameter laser module		25/28 mm	
Module length		88 mm	
Installation length		256 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	



DATA SHEET

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 5LMM	 Macro Line, small fan angle Gaussian intensity distribution Extended depth of focus
LASER MODULES SERIES LNC-13LNM	 Macro Line Generator, small fan angle Uniform intensity distribution Extended depth of focus Low noise
LASER MODULES SERIES LNC-5LPM	 Macro Line, large fan angle Gaussian intensity distribution Extended depth of focus Low noise

DATA SHEET

This is a printout of the page <u>https://sukhamburg.com/products/details/LNC-5LMM8-S150-1_56CM-405-25-X15-A7_5-HP-4</u> from 4/25/2024

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