

LNC-13MM-M100-4+56CM-520-8-O11-T15-HP-4

Low Noise Laser Macro Focus Generator with circular beam profile



FEATURES

Laser spot with approx. circular beam profile and extended depth of focus.

- Spot diameter: 0.027 x 0.021 mm
- Wavelength: 520 nm
- Working distance: 84 mm
- Depth of focus: 1.45 mm
- Low noise laser module (0.1 % RMS, @<1 MHz)

- Macro Focus Generator for extended depth of focus
- Low noise, low coherence laser module (typ. < 0.15 % of P_0 (RMS, Bandwidth < 1 MHz))



DESCRIPTION

The laser diode beam source type LNC-13MM-M100-4+56CM-520-8-O11-T15-HP-4 produces a circular laser spot with extended depth of focus. The beam profile is approx. Gaussian. More precisely it has an elliptical intensity distribution clipped by a circular aperture.

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 the spot diameter increases proportionally to the working distance. A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

TECHNICAL DATA

LNC-13MM-M100-4+56CM-520-8-O11-T15-HP-4

Series	13MM	
Order Code	LNC-13MM-M100-4+56CM-520-8-O11-T15-HP-4	
Line profile	Gaussian Intensity Distribution	
Wavelength	520 +10/-5 nm	
Laser output power	8 mW	
Laser safety class	3B	
Focussing range	80-110 mm	
Working distance	84 mm	
Spot height	0.021 mm	
Spot width	0.027 mm	
Depth of focus	1.45 mm	
Diameter laser module	25/28 mm	
Module length	93.8 mm	
Installation length	207.8 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 %	

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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-13M

- Micro Focus Generator
- Elliptical Gaussian beam profile
- Low noise

LASER MODULES SERIES 13MM

- Macro Focus Generator
- **Circular** beam profile
- Extended depth of focus

LASER MODULES SERIES LNC-13MMC

- Laser Macro Focus Generator
- **Rotationally symmetric** beam profile
- Extended depth of focus
- Low noise

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