LNC-13MM-S1000-4+56CM-640-8-H22-T15-H-6

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: 0.291 x 0.264 mm
- Wavelength: 640 nm
- Working distance: 964 mm
- Depth of focus: 178 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))

Depth of Focus

LNC

DESCRIPTION

The laser diode beam source type LNC-13MM-S1000-4+56CM-640-8-H22-T15-H-6 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 H 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-S1000-4+56CM-640-8-H22-T15-H-6

Series		13MM
Order Code		LNC-13MM-S1000-4+56CM-640-8-H22-T15-H-6
Line profile		Gaussian Intensity Distribution
Wavelength		640 +5/-5 nm
Laser output power		8 mW
Laser safety class		3B
Focussing range		815-1295 mm
Working distance		964 mm
Spot height		0.264 mm
Spot width		0.291 mm
Depth of focus		178 mm
Diameter laser module		25/28 mm
Module length		93.8 mm
Installation length		1087.8 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
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
PS051003E	Power Supply 5 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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