LNC-13M-S000+56CM-640-14-H22-T15-H-6

Low Noise Laser Micro Focus Generator with elliptical Gaussian beam profile



FEATURES

Laser spot with elliptical Gaussian beam profile.

- Spot diameter: 0.177 x 0.408 mm
- Wavelength: 640 nm
- Working distance: 2000 mm
- Low noise laser module (0.1 % RMS, @<1 MHz)

- Micro Focus Generator for small spot 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))

Micro Line LNC

DESCRIPTION

The laser diode beam source type LNC-13M-S000+56CM-640-14-H22-T15-H-6 produces an elliptical laser spot with elliptical Gaussian intensity distribution.

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-13M-S000+56CM-640-14-H22-T15-H-6

Series		13M
Order Code		LNC-13M-S000+56CM-640-14-H22-T15-H-6
Line profile		Gaussian Intensity Distribution
Wavelength		640 +5/-5 nm
Laser output power		14 mW
Laser safety class		3B
Focussing range		1295-inf mm
Working distance		2000 mm
Spot height		0.408 mm
Spot width		0.177 mm
Rayleigh range		77.2 mm
Diameter laser module		25/28 mm
Module length		85.4 mm
Installation length		2115.4 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-13MM
- Macro Focus Generator
- **Circular** beam profile
- Extended depth of focus
- Low noise

LASER MODULES SERIES LNC-13MC
- Micro Focus Generator
- **Rotationally symmetric**, Gaussian beam profile
- Low noise

LASER MODULES SERIES 13M
- Micro Focus Generator
- Elliptical Gaussian beam profile

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