

LNC-13M-S250+56CM-685-20-H13-T12-H-6

Low Noise Laser Micro Focus Generator with elliptical Gaussian beam profile

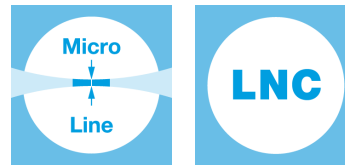


FEATURES

Laser spot with elliptical Gaussian beam profile.

- Spot diameter: 0.029 x 0.065 mm
- Wavelength: 685 nm
- Working distance: 245 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))



DESCRIPTION

The laser diode beam source type LNC-13M-S250+56CM-685-20-H13-T12-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-S250+56CM-685-20-H13-T12-H-6

Series	13M	
Order Code	LNC-13M-S250+56CM-685-20-H13-T12-H-6	
Line profile	Gaussian Intensity Distribution	
Wavelength	685 +10/-10 nm	
Laser output power	20 mW	
Laser safety class	3B	
Focussing range	205-410 mm	
Working distance	245 mm	
Spot height	0.065 mm	
Spot width	0.029 mm	
Rayleigh range	1.93 mm	
Diameter laser module	25/28 mm	
Module length	85.4 mm	
Installation length	360.4 mm	
Cable length	1.5 m	
Connector type	Lumberg SV50 IEC 61076-2-106	
Supply voltage	5 ± 0.25 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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[930412000140.pdf](#)

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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