

## LNC-13M-M125+56CM-639-11-H18-T12-H-6

Low Noise Laser Micro Focus Generator with elliptical Gaussian beam profile

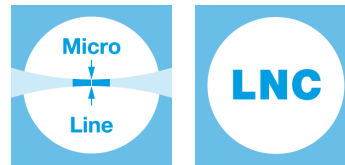


### FEATURES

Laser spot with elliptical Gaussian beam profile.

- Spot diameter: 0.01 x 0.036 mm
- Wavelength: 639 nm
- Working distance: 120 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-M125+56CM-639-11-H18-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-M125+56CM-639-11-H18-T12-H-6

<b>Series</b>	13M	
<b>Order Code</b>	LNC-13M-M125+56CM-639-11-H18-T12-H-6	
<b>Line profile</b>	Gaussian Intensity Distribution	
<b>Wavelength</b>	639 +10/-10 nm	
<b>Laser output power</b>	11 mW	
<b>Laser safety class</b>	3B	
<b>Focussing range</b>	110-205 mm	
<b>Working distance</b>	120 mm	
<b>Spot height</b>	0.036 mm	
<b>Spot width</b>	0.01 mm	
<b>Rayleigh range</b>	0.224 mm	
<b>Diameter laser module</b>	25/28 mm	
<b>Module length</b>	85.4 mm	
<b>Installation length</b>	235.4 mm	
<b>Cable length</b>	1.5 m	
<b>Connector type</b>	Lumberg SV50 IEC 61076-2-106	
<b>Supply voltage</b>	5 ± 0.2 V	
<b>Max. current consumption</b>	0.25 A	
<b>Working temperature</b>	0 - 40 °C	
<b>Modulation inputs</b>	Analog	TTL
<b>Input resistance</b>	22 kOhm	22 kOhm
<b>Max. modulation frequency</b>	100 kHz	100 kHz
<b>Modulation delay ON/OFF</b>	2/0.3 µs	1.5/0.1 µs
<b>Rise / Fall time</b>	1/1 µs	1/1 µs
<b>Noise (&lt; 1 MHz RMS)</b>	0.1 %	

## ACCESSORIES

<b>50HD-15</b>	Hex key WS 1.5
<b>9D-12</b>	Screwdriver WS 1.2
<b>13MK-25-36-10-F</b>	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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