LNC-13LNM40-S250-7+91CR-639-3-H18-M60-H-6

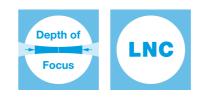
Low Noise Macro Line Generator with a fan angle



FEATURES

Laser line with a fan angle, approx. uniform intensity distribution and extended depth of focus.

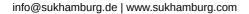
- Line length: 75 mm
- Line width: 33 µm
- Wavelength: 639 nm
- Working distance: 227 mm
- Depth of focus: 3.63 mm
- Low noise laser module (0.1 % RMS, @<1 MHz)
- Macro Line Generator for extended depth of focus
- Low noise, low coherence laser module (typ. < 0.15 % of P₀ (RMS, Bandwidth < 1 MHz))



DESCRIPTION

The laser diode beam source type LNC-13LNM40-S250-7+91CR-639-3-H18-M60-H-6 has a fan angle of 14.3°, approx. uniform intensity distribution along the laser line and extended depth of focus.

More precisely, it is Gaussian clipped by an aperture with an edge intensity of 87 %. Across the laser line the intensity distribution is Gaussian.



The laser has integrated electronics <u>type H</u> 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 <u>modulation input ports (TTL and analog)</u> or manually using the potentiometer.

For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.

TECHNICAL DATA

LNC-13LNM40-S250-7+91CR-639-3-H18-M60-H-6

Series		13LNM40
Order Code	LNC-13LNM40-S250-7+91CR-639-3-H18-M60-H-6	
Line profile	Constant Intensity Distribution	
Line type	Laser Macro Line	
Wavelength	639 +10/-10 nm	
Laser output power		3 mW
Laser safety class	3R	
Fan angle α	14.3 deg	
Focussing range		227-227 mm
Working distance		227 mm
Line length	75 mm	
Line width	0.033 mm	
Depth of focus	3.63 mm	
Edge intensity	87 %	
Diameter laser module	25/28 mm	
Module length	146.9 mm	
Installation length	373.9 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

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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 %

ACCESSORIES

9D-12	Screwdriver WS 1.2
PS051003E	Power Supply 5 V

RELATED PRODUCTS

LASER MODULES SERIES LNC-13LN	 Micro Line, small fan angle Uniform intensity distribution Thin lines Low noise
LASER MODULES SERIES 13LNM	 Micro Line Generator, small fan angle Uniform intensity distribution Extended depth of focus
LASER MODULES SERIES LNC-5LMM	 Macro Line, small fan angle Gaussian intensity distribution Extended depth of focus Low Noise
LASER MODULES SERIES LNC-5LPM	 Macro Line, large fan angle Gaussian intensity distribution Extended depth of focus Low noise



DATA SHEET

This is a printout of the page <u>https://sukhamburg.com/products/details/LNC-13LNM40-S250-7_91CR-639-3-H18-M60-H-6</u> from 5/2/2024

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