LNC-13LTM-500-41+91CM-405-8-X15-M60-HP-4

Semi-telecentric Macro Line Generator Semi-telecentric Low Noise Macro Line Generator



FEATURES

Semi-telecentric laser line with constant line length 15mm, approx. uniform intensity distribution and extended depth of focus.

- Line length: 15 mm
- Line width: 73 µm
- Wavelength: 405 nm
- Working distance: 488 mm
- Depth of focus: 28.2 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 P_0 (RMS, Bandwidth < 1 MHz))

Depth of Focus

LNC

DESCRIPTION

The laser diode beam source type LNC-13LTM-500-41+91CM-405-8-X15-M60-HP-4 produces a semi-telecentric laser line with 15 mm line length and extended depth of focus. The intensity profile is approx. uniform in line direction. More precisely, it is Gaussian clipped by an aperture with an edge intensity of 71 %. The line width is constant along the laser line. Across the laser line the intensity distribution is approx. Gaussian.

The laser has integrated electronics type HP with micro-controller 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.

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-13LTM-500-41+91CM-405-8-X15-M60-HP-4

Series	13LTM	
Order Code	LNC-13LTM-500-41+91CM-405-8-X15-M60-HP-4	
Line profile	Constant Intensity Distribution	
Line type	Laser Macro Line	
Wavelength	405 +5/-5 nm	
Laser output power	8 mW	
Laser safety class	3B	
Focussing range	488-488 mm	
Working distance	488 mm	
Line length	15 mm	
Line width	0.073 mm	
Depth of focus	28.2 mm	
Edge intensity	71 %	
Diameter laser module	25/28 mm	
Module length	136.8 mm	
Installation length	654.8 mm	
Cable length	1.5 m	
Connector type	Lumberg SV40 IEC 61076-2-106	
Supply voltage	12 ± 0.5 V	
Max. current consumption	0.3 A	
Working temperature	15 - 40 °C	
Modulation inputs	Analog	TTL
Input resistance	9 kOhm	9 kOhm
Max. modulation frequency	0.001 kHz	300 kHz
Modulation delay ON/OFF	2000/500 µs	0.5/0.2 µs

Rise / Fall time	200000/200000 µs	0.8/0.3 µs
Noise (< 1 MHZ RMS)		0.1 %

ACCESSORIES

9D-12	Screwdriver WS 1.2
PS120516E	Power Supply 12 V

RELATED PRODUCTS

LASER MODULES SERIES LNC-13LT

- Semi-telecentric Micro Line
- Uniform intensity distribution
- Constant line length **15 mm**
- Low noise

LASER MODULES SERIES 13LTM

- Semi-telecentric Macro Line
- Uniform intensity distribution
- Constant line length **15 mm**
- Extended depth of focus

LASER MODULES SERIES LNC-5LTM-1

- Semi-telecentric Macro Line
- Gaussian intensity distribution
- Constant line length ca. **4.8 mm**
- Extended depth of focus
- Low noise

LASER MODULES SERIES LNC-5LTM-2

- Semi-telecentric Macro Line
- Gaussian intensity distribution
- Constant line length ca. **2 mm**
- Extended depth of focus
- Low noise

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