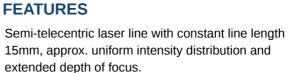
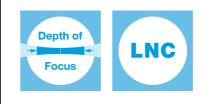
#### LNC-13LTM-2000-41+91CR-405-8-X15-M60-HP-4

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





- Line length: 15 mm
- Line width: 293 μm
- Wavelength: 405 nm
- Working distance: 1988 mm
- Depth of focus: 451 mm
- Low noise laser module (0.1 % RMS, @<1 MHz)</li>
- Macro Line Generator for extended depth of focus
- Low noise, low coherence laser module (typ. < 0.15 % of P<sub>o</sub> (RMS, Bandwidth < 1 MHz))</li>



#### DESCRIPTION

The laser diode beam source type LNC-13LTM-2000-41+91CR-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 <u>type HP</u> 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 <u>modulation input</u> <u>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-13LTM-2000-41+91CR-405-8-X15-M60-HP-4

Series		13LTM
Order Code	LNC-13LTM-2000-41+91CR-405-8-X15-M60-HP-4	
Line profile	Constant Inter	nsity Distribution
Line type	L	aser Macro Line
Wavelength		405 +5/-5 nm
Laser output power		8 mW
Laser safety class	3В	
Focussing range	1988-1988 mm	
Working distance	1988 mm	
Line length	15 mm	
Line width	0.293 mm	
Depth of focus	451 mm	
Edge intensity	71 %	
Diameter laser module	25/28 mm	
Module length	139.8 mm	
Installation length	2127.8 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

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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	<ul> <li>Semi-telecentric Micro Line</li> <li>Uniform intensity distribution</li> <li>Constant line length 15 mm</li> <li>Low noise</li> </ul>
LASER MODULES SERIES 13LTM	<ul> <li>Semi-telecentric Macro Line</li> <li>Uniform intensity distribution</li> <li>Constant line length 15 mm</li> <li>Extended depth of focus</li> </ul>
LASER MODULES SERIES LNC-5LTM-1	<ul> <li>Semi-telecentric Macro Line</li> <li>Gaussian intensity distribution</li> <li>Constant line length ca. 4.8 mm</li> <li>Extended depth of focus</li> <li>Low noise</li> </ul>
LASER MODULES SERIES LNC-5LTM-2	<ul> <li>Semi-telecentric Macro Line</li> <li>Gaussian intensity distribution</li> <li>Constant line length ca. 2 mm</li> <li>Extended depth of focus</li> </ul>

- Extended depth of focus
- Low noise



# **DATA SHEET**

This is a printout of the page <u>https://sukhamburg.com/products/details/LNC-13LTM-2000-41\_91CR-405-8-X15-M60-HP-4</u> from 4/25/2024

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