LNC-5LT-500-1+56CM-450-25-006-A7.5-HP-4

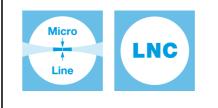
Semi-telecentric Micro Line Generator



FEATURES

Semi-telecentric laser line with constant line length of 4.8 mm.

- Line length: 4.8 mm
- Line width: 172 μm
- Wavelength: 450 nm
- Working distance: 491 mm
- Low noise laser module (0.1 % RMS, @<1 MHz)
- Micro Line Generator for small laser line widths and high power density in the focal plane
- Low noise, low coherence laser module (typ. < 0.15 % of P₀ (RMS, Bandwidth < 1 MHz))



DESCRIPTION

The laser diode beam source type LNC-5LT-500-1+56CM-450-25-O06-A7.5-HP-4 produces a semi-telecentric laser line with 4.8 mm line length. The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 15 %. The line width is constant along the laser line. Across the laser line the intensity distribution is 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> ports (<u>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-5LT-500-1+56CM-450-25-006-A7.5-HP-4

Series		5LT
Order Code	LNC-5LT-500-1+56CM-450-25-006-A7.5-HP-4	
Line profile	Gaussian Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	450 +10/-10 nm	
Laser output power	25 mW	
Laser safety class	3В	
Focussing range	491-491 mm	
Working distance	tance 491 mm	
Line length 4.8 mm		
Line width	0.172 mm	
Rayleigh range	103 mm	
Edge intensity	15 %	
Diameter laser module	25/28 mm	
Module length	82.6 mm	
Installation length	603.6 mm	
Cable length	1.5 m	
Connector type	Lumberg SV40 IEC 61076-2-106	
Supply voltage	12 ± 0.5 V	
Max. current consumption	0.3A	
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 %



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<u>930412000141.pdf.pdf</u>

ACCESSORIES

9D-12	Screwdriver WS 1.2
13MK-25-36-10-F	Mounting Console with flat base plate
13МК-25-36-10-М	Mounting Console with base plate with dovetail profile
PS120516E	Power Supply 12 V

RELATED PRODUCTS

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



DATA SHEET

This is a printout of the page <u>https://sukhamburg.com/products/details/LNC-5LT-500-1_56CM-450-25-006-A7_5-HP-4</u> from 4/19/2024

CONTACT

For more information please contact: Schäfter + Kirchhoff GmbH Kieler Str. 212 22525 Hamburg Germany Tel: +49 40 85 39 97-0 Fax: +49 40 85 39 97-79

info@sukhamburg.de www.sukhamburg.com

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