

## LNC-5LTM-150-11+56CM-405-25-X15-A7.5-HP-4

Semi-telecentric Macro Line Generator



### FEATURES

Semi-telecentric laser line with constant line length of 4.8 mm and extended depth of focus.

- Line length: 4.8 mm
- Line width: 88  $\mu\text{m}$
- Wavelength: 405 nm
- Working distance: 139 mm
- Depth of focus: 40.6 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))



## DESCRIPTION

The laser diode beam source type LNC-5LTM-150-11+56CM-405-25-X15-A7.5-HP-4 produces a semi-telecentric laser line with 4.8 mm line length and extended depth of focus. The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 10 %. 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-5LTM-150-11+56CM-405-25-X15-A7.5-HP-4

Series	5LTM	
Order Code	LNC-5LTM-150-11+56CM-405-25-X15-A7.5-HP-4	
Line profile	Gaussian Intensity Distribution	
Line type	Laser Macro Line	
Wavelength	405 +5/-5 nm	
Laser output power	25 mW	
Laser safety class	3B	
Focussing range	139-139 mm	
Working distance	139 mm	
Line length	4.8 mm	
Line width	0.088 mm	
Depth of focus	40.6 mm	
Edge intensity	10 %	
Diameter laser module	25/28 mm	
Module length	88 mm	
Installation length	257 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
13MK-25-36-10-F	Mounting Console with flat base plate
13MK-25-36-10-M	Mounting Console with base plate with dovetail profile
PS120516E	Power Supply 12 V

## RELATED PRODUCTS

LASER MODULES SERIES LNC-5LT-2	<ul style="list-style-type: none"><li>▪ Semi-telecentric Micro Line</li><li>▪ Gaussian intensity distribution</li><li>▪ Constant line length ca. <b>2 mm</b></li><li>▪ Low noise</li></ul>
LASER MODULES SERIES 5LTM-2	<ul style="list-style-type: none"><li>▪ Semi-telecentric Macro Line</li><li>▪ Gaussian intensity distribution</li><li>▪ Constant line length ca. <b>2 mm</b></li><li>▪ Extended depth of focus</li></ul>
LASER MODULES SERIES LNC-13LTM	<ul style="list-style-type: none"><li>▪ Semi-telecentric Macro Line</li><li>▪ Uniform intensity distribution</li><li>▪ Constant line length <b>15 mm</b></li><li>▪ Extended depth of focus</li><li>▪ Low noise</li></ul>
LASER MODULES SERIES LNC-5LTM-1	<ul style="list-style-type: none"><li>▪ Semi-telecentric Macro Line</li><li>▪ Gaussian intensity distribution</li><li>▪ Constant line length ca. <b>4.8 mm</b></li><li>▪ Extended depth of focus</li><li>▪ Low noise</li></ul>

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## 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](mailto:info@sukhamburg.de)**

**[www.sukhamburg.com](http://www.sukhamburg.com)**

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