

### LNC-5LTM-330-11+56CM-640-9-H22-A8-H-6

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: 306 µm
Wavelength: 640 nm
Working distance: 319 mm
Depth of focus: 311 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>0</sub> (RMS, Bandwidth < 1 MHz))</li>





# **DESCRIPTION**

The laser diode beam source type LNC-5LTM-330-11+56CM-640-9-H22-A8-H-6 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 14 %. 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 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  $\underline{\text{modulation input ports (TTL and analog)}}$  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-330-11+56CM-640-9-H22-A8-H-6

Line profile			
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Line time	1	Gaussian Intensity Distribution	
Line type	Laser Macro Line		
Wavelength	640 +5/-5 nm		
Laser output power	9 mW		
Laser safety class	3B		
Focussing range	319-319 mm		
Working distance	319 mm		
Line length	4.8 mm		
Line width	0.306 mm		
Depth of focus	311 mm		
Edge intensity	14 %		
Diameter laser module	25/28 mm		
Module length	88 mm		
Installation length	437 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	
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

13MK-25-36-10-F Mounting Console with flat base plate

Mounting Console with base plate with dovetail 13MK-25-36-10-M

profile

PS051003E Power Supply 5 V

### **RELATED PRODUCTS**

LASER MODULES ■ Semi-telecentric Micro Line **SERIES LNC-5LT-2** Gaussian intensity distribution

Constant line length ca. 2 mm

Low noise

**LASER MODULES**  Semi-telecentric Macro Line **SERIES 5LTM-2** Gaussian intensity distribution

Constant line length ca. 2 mm

Extended depth of focus

Semi-telecentric Macro Line LASER MODULES

**SERIES** Uniform intensity distribution LNC-13LTM Constant line length 15 mm

Extended depth of focus

Low noise

LASER MODULES Semi-telecentric Macro Line **SERIES LNC-5LTM-1** 

Gaussian intensity distribution

Constant line length ca. 4.8 mm

Extended depth of focus

Low noise



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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 www.sukhamburg.com

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