LNC-5LT-500-2+56CM-639-9-H18-A8-H-6

Semi-telecentric Micro Line Generator



FEATURES

Semi-telecentric laser line with constant line length of 2.4 mm.

- Line length: 2.4 mm
- Line width: 85 µm
- Wavelength: 639 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 P_0 (RMS, Bandwidth < 1 MHz))

Micro Line LNC

DESCRIPTION

The laser diode beam source type LNC-5LT-500-2+56CM-639-9-H18-A8-H-6 produces a semi-telecentric laser line with 2.4 mm line length. In this case the line length is given on the 13.5%-level. The intensity profile is Gaussian in line direction and the line is truncated at 4.8 mm. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics type H 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-5LT-500-2+56CM-639-9-H18-A8-H-6

Series		5LT
Order Code		LNC-5LT-500-2+56CM-639-9-H18-A8-H-6
Line profile		Gaussian Intensity Distribution
Line type		Laser Micro Line
Wavelength		639 +10/-10 nm
Laser output power		9 mW
Laser safety class		3B
Focussing range		491-491 mm
Working distance		491 mm
Line length		2.4 mm
Line width		0.085 mm
Rayleigh range		17.7 mm
Edge intensity		40 %
Diameter laser module		25/28 mm
Module length		82.6 mm
Installation length		603.6 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 %

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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
PS051003E	Power Supply 5 V

RELATED PRODUCTS

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

LASER MODULES SERIES 5LTM-2

- Semi-telecentric Macro Line
- Gaussian intensity distribution
- Constant line length ca. **2 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

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