LNC-5LP40-S000+56CR-685-18-H13-A8-H-6

Low Noise Micro Line Generator with a large fan angle

FEATURES

Laser line with a large fan angle and Gaussian intensity distribution.

- Line length: 720 mm
- Line width: 388 µm
- Wavelength: 685 nm
- Working distance: 1000 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-5LP40-S000+56CR-685-18-H13-A8-H-6 has a fan angle of 40°.

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 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.

The working distance can be adjusted by adjusting the focus setting. Please note that beam parameters like line length and line width increase proportionally to the working distance. A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

TECHNICAL DATA

LNC-5LP40-S000+56CR-685-18-H13-A8-H-6

Series		5LP
Order Code		LNC-5LP40-S000+56CR-685-18-H13-A8-H-6
Line profile		Gaussian Intensity Distribution
Line type		Laser Micro Line
Wavelength		685 +10/-10 nm
Laser output power		18 mW
Laser safety class		3B
Fan angle α		40 deg
Focussing range		430-inf mm
Working distance		1000 mm
Line length		720 mm
Line width		0.388 mm
Rayleigh range		346 mm
Edge intensity		14 %
Diameter laser module		25/28 mm
Module length		102.6 mm
Installation length		1102.6 mm
Cable length		1.5 m
Connector type		Lumberg SV50 IEC 61076-2-106
Supply voltage		5 ± 0.25 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

50HD-15	Hex key WS 1.5
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-5LPM
- Macro Line, **large** fan angle
- Gaussian intensity distribution
- Extended depth of focus
- Low noise

LASER MODULES SERIES 5LP
- Micro Line, **large** fan angle
- Gaussian intensity distribution

LASER MODULES SERIES LNC-13LN
- Micro Line, **small** fan angle
- Uniform intensity distribution
- Thin lines
- Low noise

LASER MODULES SERIES LNC-5LM
- Micro Line, **small** fan angle
- Gaussian intensity distribution
- Low noise

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