LNC-5LPM40-S000-1+56CM-685-12-H13-A8-H-6

Low Noise Macro Line Generator with a large fan angle

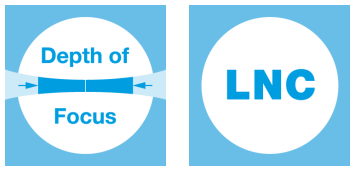


FEATURES

Laser line with a large fan angle, Gaussian intensity distribution and extended depth of focus.

- Line length: 720 mm
- Line width: 989 µm
- Wavelength: 685 nm
- Working distance: 1000 mm
- Depth of focus: 1500 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_o (RMS, Bandwidth < 1 MHz))



DESCRIPTION

The laser diode beam source type LNC-5LPM40-S000-1+56CM-685-12-H13-A8-H-6 has a fan angle of 40° and an extended depth of focus.

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 approx. 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-5LPM40-S000-1+56CM-685-12-H13-A8-H-6

Series		5LPM
Order Code		LNC-5LPM40-S000-1+56CM-685-12-H13-A8-H-6
Line profile		Gaussian Intensity Distribution
Line type		Laser Macro Line
Wavelength		685 +10/-10 nm
Laser output power		12 mW
Laser safety class		3B
Fan angle α		40 deg
Focussing range		450-inf mm
Working distance		1000 mm
Line length		720 mm
Line width		0.989 mm
Depth of focus		1500 mm
Edge intensity		15 %
Diameter laser module		25/28 mm
Module length		105 mm
Installation length		1135 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 5LPM
- Macro Line, **large** fan angle
- Gaussian intensity distribution
- Extended depth of focus

LASER MODULES SERIES LNC-13LNM
- Macro Line Generator, **small** fan angle
- Uniform intensity distribution
- Extended depth of focus
- Low noise

LASER MODULES SERIES LNC-5LMM
- Macro Line, **small** fan angle
- Gaussian intensity distribution
- Extended depth of focus
- Low Noise

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