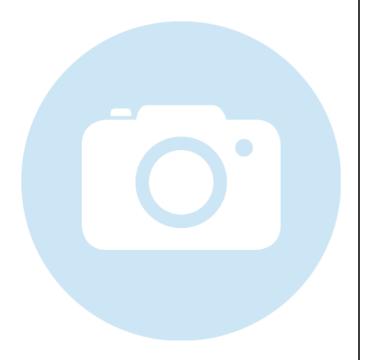


LNC-5LMM15-S325-1+56CM-405-25-X15-A7.5-HP-4

Low Noise Macro Line Generator with a fan angle



FEATURES

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

Line length: 86.9 mm
Line width: 191 µm
Wavelength: 405 nm
Working distance: 308 mm
Depth of focus: 191 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-5LMM15-S325-1+56CM-405-25-X15-A7.5-HP-4 has a fan angle of 15° and an 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 <u>type HP</u> 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 <u>modulation input ports (TTL and analog)</u> 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-5LMM15-S325-1+56CM-405-25-X15-A7.5-HP-4

Series		5LMM
Order Code	LNC-5LMM15-S325-1+56CM-405-25	-X15-A7.5-HP-4
Line profile	Gaussian Intensity Distribution	
Line type	L	aser Macro Line
Wavelength		405 +5/-5 nm
Laser output power		25 mW
Laser safety class		3B
Fan angle α		15 deg
Focussing range		250-450 mm
Working distance		308 mm
Line length		86.9 mm
Line width	0.191 mm	
Depth of focus	191 mm	
Edge intensity		10 %
Diameter laser module	25/28 mm	
Module length		88 mm
Installation length		426 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

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

PS120516E Power Supply 12 V

RELATED PRODUCTS

LASER MODULES • Macro Line, small fan angle **SERIES LNC-5LMM** Gaussian intensity distribution

Extended depth of focus

Low Noise

LASER MODULES Macro Line, small fan angle **SERIES 5LMM** Gaussian intensity distribution

Extended depth of focus

LASER MODULES Macro Line Generator, small fan angle

SERIES LNC-13LNM Uniform intensity distribution

Extended depth of focus

Low noise

LASER MODULES Macro Line, large fan angle **SERIES LNC-5LPM**

Gaussian intensity distribution

Extended depth of focus

Low noise



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