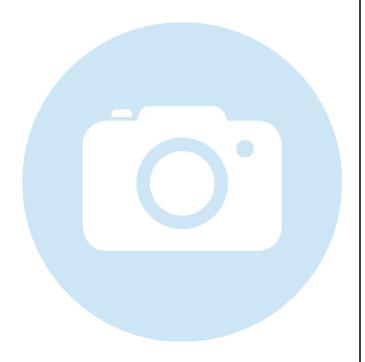


LNC-5LPM60-S150-1+56CM-685-12-H13-A8-H-6

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: 168 mm
Line width: 148 μm
Wavelength: 685 nm
Working distance: 142 mm
Depth of focus: 68.7 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-5LPM60-S150-1+56CM-685-12-H13-A8-H-6 has a fan angle of 62° and an 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.

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-5LPM60-S150-1+56CM-685-12-H13-A8-H-6

Series	5LPM		
Order Code	LNC-5LPM60-S150-1+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	62 deg		
Focussing range	120-255 mm		
Working distance	142 mm		
Line length	168 mm		
Line width	0.148 mm		
Depth of focus	68.7 mm		
Edge intensity	14 %		
Diameter laser module	25/28 mm		
Module length	101 mm		
Installation length	273 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 • Macro Line, large fan angle **SERIES LNC-5LPM** Gaussian intensity distribution

Extended depth of focus

Low noise

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

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, small fan angle

Gaussian intensity distribution

Extended depth of focus

Low Noise

SERIES LNC-5LMM



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