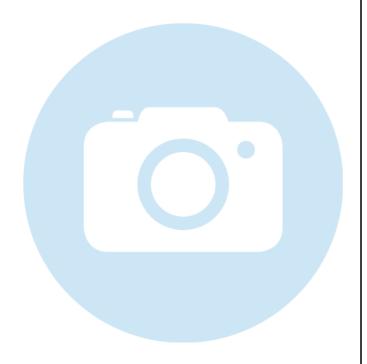


LNC-5LPM80-S150-1+56CM-450-19-O06-A7.5-HP-4

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: 250 mm
Line width: 99 μm
Wavelength: 450 nm
Working distance: 142 mm
Depth of focus: 45.1 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-5LPM80-S150-1+56CM-450-19-O06-A7.5-HP-4 has a fan angle of 84° 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 <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-5LPM80-S150-1+56CM-450-19-O06-A7.5-HP-4

Series		5LPM	
Order Code	LNC-5LPM80-S150-1+56CM-450-19-O06-A7.5-HP-4		
Line profile	Gaussian Intensity Distribution		
Line type	Laser Macro Line		
Wavelength	450 +10/-10 nm		
Laser output power		19 mW	
Laser safety class		3B	
Fan angle α		84 deg	
Focussing range		120-255 mm	
Working distance		142 mm	
Line length	250 mm		
Line width	0.099 mm		
Depth of focus	45.1 mm		
Edge intensity	15 %		
Diameter laser module	25/28 mm		
Module length	101 mm		
Installation length		273 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, 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 **SERIES LNC-5LMM**

Gaussian intensity distribution

Extended depth of focus

Low Noise



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