

LNC-5LP80-S325+56CR-405-35-X15-A7.5-HP-4

Low Noise Micro Line Generator with a large fan angle



FEATURES

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

Line length: 565 mm
Line width: 84 µm
Wavelength: 405 nm
Working distance: 317 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 P₀ (RMS, Bandwidth < 1 MHz))





DESCRIPTION

The laser diode beam source type LNC-5LP80-S325+56CR-405-35-X15-A7.5-HP-4 has a fan angle of 84°.

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 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-5LP80-S325+56CR-405-35-X15-A7.5-HP-4

Line profile Gaussian Intensity Distribution Line type Laser Micro Line Wavelength 405 +5/-5 nm Laser output power 35 mm Laser safety class 3 Fan angle α 84 dec Focussing range 260-430 mm Working distance 317 mm Line length 565 mm Line width 0.084 mm Rayleigh range 27.4 mm Edge intensity 10 mm Diameter laser module 25/28 mm Module length 98.6 mm Installation length 415.6 mm Cable length 1.5 Connector type Lumberg SV40 IEC 61076-2-10 Supply voltage 12 ± 0.5 Max. current consumption 0.3 Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm	Series		5LP
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Diameter laser module25/28 mmModule length98.6 mmInstallation length415.6 mmCable length1.5Connector typeLumberg SV40 IEC 61076-2-10Supply voltage12 ± 0.5Max. current consumption0.3Working temperature15 - 40 °Modulation inputsAnalogInput resistance9 kOhm	Rayleigh range	27.4 mm	
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Supply voltage 12 ± 0.5 Max. current consumption 0.3 Working temperature $15 - 40^{\circ}$ Modulation inputsAnalogTTInput resistance 9kOhm 9kOhm	Cable length	1.5 m	
Max. current consumption0.3Working temperature15 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhm	Connector type	Lumberg SV40 IEC 61076-2-106	
Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm	Supply voltage	12 ± 0.5 V	
Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm	Max. current consumption	0.3 A	
Input resistance 9 kOhm 9 kOh	Working temperature	15 - 40 °C	
	Modulation inputs	Analog	TTL
Max. modulation frequency 0.001 kHz 300 kH	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 μ	Modulation delay ON/OFF	2000/500 μs	0.5/0.2 μs
Rise / Fall time 200000/200000 μs 0.8/0.3 μ	Rise / Fall time	200000/200000 μs	0.8/0.3 μs



Noise (< 1 MHZ RMS) 0.1%

DOWNLOADS



ACCESSORIES

50HD-15 Hex key WS 1.5

9D-12 Screwdriver WS 1.2

Mounting Console with flat base plate 13MK-25-36-10-F

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 Micro Line, large fan angle **SERIES 5LP**

Gaussian intensity distribution

LASER MODULES Micro Line, small fan angle **SERIES LNC-13LN**

Uniform intensity distribution

Thin lines Low noise

LASER MODULES • Micro Line, small fan angle **SERIES LNC-5LM**

Gaussian intensity distribution

Low noise



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