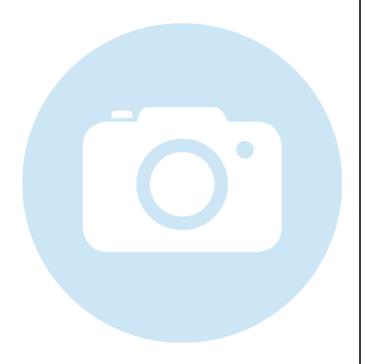


### LNC-5LPM80-S000-1+56CM-405-25-X15-A7.5-HP-4

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: 1800 mm
Line width: 588 µm
Wavelength: 405 nm
Working distance: 1000 mm
Depth of focus: 1500 mm

Low noise laser module (0.1 % RMS, @<1 MHz)</li>

- Macro Line Generator for extended depth of focus
- Low noise, low coherence laser module (typ. < 0.15 % of P<sub>o</sub> (RMS, Bandwidth < 1 MHz))</li>





## **DESCRIPTION**

The laser diode beam source type LNC-5LPM80-S000-1+56CM-405-25-X15-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 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-5LPM80-S000-1+56CM-405-25-X15-A7.5-HP-4

Series		5LPM
Order Code	LNC-5LPM80-S000-1+56CM-405-25-X15-A7.5-HP-4	
Line profile	Gaussian Intensity Distribution	
Line type	Laser Macro Line	
Wavelength		405 +5/-5 nm
Laser output power		25 mW
Laser safety class		3B
Fan angle α		84 deg
Focussing range		450-inf mm
Working distance		1000 mm
Line length		1800 mm
Line width		0.588 mm
Depth of focus		1500 mm
Edge intensity		10 %
Diameter laser module		25/28 mm
Module length		101 mm
Installation length		1131 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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