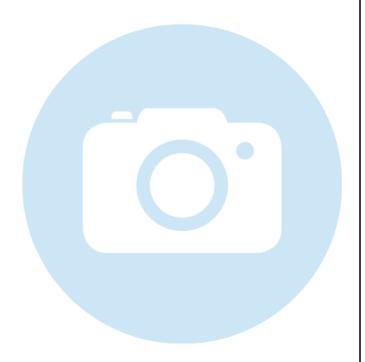


## LNC-5LPM80-S88-1+56CM-450-19-O06-A7.5-HP-4

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: 140 mm
Line width: 58 μm
Wavelength: 450 nm
Working distance: 77 mm
Depth of focus: 15.5 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-S88-1+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-S88-1+56CM-450-19-O06-A7.5-HP-4

Series		5LPM	
Order Code	LNC-5LPM80-S88-1+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	65-120 mm		
Working distance	77 mm		
Line length	140 mm		
Line width	0.058 mm		
Depth of focus	15.5 mm		
Edge intensity	15 %		
Diameter laser module	25/28 mm		
Module length	101 mm		
Installation length	208 mm		
Cable length	1.5 m		
Connector type	Lumberg SV40 II	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



This is a printout of the page <a href="https://sukhamburg.com/products/details/LNC-5LPM80-S88-1">https://sukhamburg.com/products/details/LNC-5LPM80-S88-1</a> 56CM-450-19-006-A7 5-HP-4 from 5/6/2024

### CONTACT

For more information please contact: Schäfter + Kirchhoff GmbH Kieler Str. 212 22525 Hamburg Germany

Tel: +49 40 85 39 97-0 Fax: +49 40 85 39 97-79

info@sukhamburg.de www.sukhamburg.com

### **LEGAL NOTICE**

Copyright 2020 Schäfter+Kirchhoff GmbH. All rights reserved.

Text, image, graphic, sound, video and animation files and their arrangement on Schäfter+Kirchhoff GmbH webpages are protected by copyright and other protective laws. The content may not be copied for commercial use or reproduced, modified or used on other websites. [more]