

## 5LP80-S88+55CM-450-53-O06-A7.5-P-6

Micro Line Generator with a large fan angle



### FEATURES

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

- Line length: 140 mm
- Line width: 30  $\mu\text{m}$
- Wavelength: 450 nm
- Working distance: 82 mm

- Micro Line Generator for small laser line widths and high power density in the focal plane



## DESCRIPTION

The laser diode beam source type 5LP80-S88+55CM-450-53-O06-A7.5-P-6 has a fan angle of 84°.

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 Gaussian.

The laser has integrated electronics [type P](#) with micro-controller for control of the laser output power. The output power can be controlled using the [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

5LP80-S88+55CM-450-53-O06-A7.5-P-6

Series	5LP	
Order Code	5LP80-S88+55CM-450-53-O06-A7.5-P-6	
Line profile	Gaussian Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	450 +10/-10 nm	
Laser output power	53 mW	
Laser safety class	3B	
Fan angle $\alpha$	84 deg	
Focussing range	70-125 mm	
Working distance	82 mm	
Line length	140 mm	
Line width	0.03 mm	
Rayleigh range	3.2 mm	
Edge intensity	15 %	
Diameter laser module	25/28 mm	
Module length	86.1 mm	
Installation length	198.1 mm	
Cable length	1.5 m	
Connector type	Lumberg SV50 IEC 61076-2-106	
Supply voltage	5 $\pm$ 0.2 V	
Max. current consumption	0.5 A	
Working temperature	15 - 40 °C	
Modulation inputs	Analog	TTL
Input resistance	9 kOhm	9 kOhm
Max. modulation frequency	0.01 kHz	250 kHz
Modulation delay ON/OFF	3000/3000 $\mu$ s	0.5/0.2 $\mu$ s
Rise / Fall time	40000/40000 $\mu$ s	0.5/0.5 $\mu$ s

## 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 SERIES 5LPM

- Macro Line, **large** fan angle
- Gaussian intensity distribution
- Extended depth of focus

### LASER MODULES SERIES LNC-5LP

- Micro Line, **large** fan angle
- Gaussian intensity distribution
- Low noise

### LASER MODULES SERIES 13LR

- Micro Line Generator, fan angle
- Uniform intensity distribution

### LASER MODULES SERIES 13LN

- Micro Line, **small** fan angle
- Uniform intensity distribution
- Thin lines

### LASER MODULES SERIES 5LM+25CM

- **Compact** Micro Line, **small** fan angle
- Gaussian intensity distribution

### LASER MODULES SERIES 5LP+25CM

- **Compact** Micro Line, **large** fan angle
- Gaussian intensity distribution

### LASER MODULES SERIES 5LM

- Micro Line, **small** fan angle
- Gaussian intensity distribution

This is a printout of the page [https://sukhamburg.com/products/details/5LP80-S88\\_55CM-450-53-O06-A7\\_5-P-6](https://sukhamburg.com/products/details/5LP80-S88_55CM-450-53-O06-A7_5-P-6) from 5/4/2024

## 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](mailto:info@sukhamburg.de)**

**[www.sukhamburg.com](http://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. [\[more\]](#)