

5LP40-S50+55CM-405-82-X15-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: 28 mm
- Line width: 13 μm
- Wavelength: 405 nm
- Working distance: 46 mm

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



DESCRIPTION

The laser diode beam source type 5LP40-S50+55CM-405-82-X15-A7.5-P-6 has a fan angle of 40°.

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 [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

5LP40-S50+55CM-405-82-X15-A7.5-P-6

Series	5LP	
Order Code	5LP40-S50+55CM-405-82-X15-A7.5-P-6	
Line profile	Gaussian Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	405 +5/-5 nm	
Laser output power	82 mW	
Laser safety class	3B	
Fan angle α	40 deg	
Focussing range	35-70 mm	
Working distance	46 mm	
Line length	28 mm	
Line width	0.013 mm	
Rayleigh range	0.648 mm	
Edge intensity	10 %	
Diameter laser module	25/28 mm	
Module length	90.1 mm	
Installation length	166.1 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 μ s	0.5/0.2 μ s
Rise / Fall time	40000/40000 μ s	0.5/0.5 μ 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

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