

## 5LP40-S000+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: 720 mm
- Line width: 258  $\mu\text{m}$
- Wavelength: 405 nm
- Working distance: 1000 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-S000+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-S000+55CM-405-82-X15-A7.5-P-6

<b>Series</b>	5LP	
<b>Order Code</b>	5LP40-S000+55CM-405-82-X15-A7.5-P-6	
<b>Line profile</b>	Gaussian Intensity Distribution	
<b>Line type</b>	Laser Micro Line	
<b>Wavelength</b>	405 +5/-5 nm	
<b>Laser output power</b>	82 mW	
<b>Laser safety class</b>	3B	
<b>Fan angle <math>\alpha</math></b>	40 deg	
<b>Focussing range</b>	430-inf mm	
<b>Working distance</b>	1000 mm	
<b>Line length</b>	720 mm	
<b>Line width</b>	0.258 mm	
<b>Rayleigh range</b>	259 mm	
<b>Edge intensity</b>	10 %	
<b>Diameter laser module</b>	25/28 mm	
<b>Module length</b>	90.1 mm	
<b>Installation length</b>	1120.1 mm	
<b>Cable length</b>	1.5 m	
<b>Connector type</b>	Lumberg SV50 IEC 61076-2-106	
<b>Supply voltage</b>	5 ± 0.2 V	
<b>Max. current consumption</b>	0.5 A	
<b>Working temperature</b>	15 - 40 °C	
<b>Modulation inputs</b>	Analog	TTL
<b>Input resistance</b>	9 kOhm	9 kOhm
<b>Max. modulation frequency</b>	0.01 kHz	250 kHz
<b>Modulation delay ON/OFF</b>	3000/3000 $\mu$ s	0.5/0.2 $\mu$ s
<b>Rise / Fall time</b>	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

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