

5LM15-S50+55CM-450-57-O06-A7.5-PS-7

Micro Line Generator with a fan angle



FEATURES

Laser line with a fan angle and Gaussian intensity distribution.

- Line length: 11.9 mm
- Line width: 17 μm
- Wavelength: 450 nm
- Working distance: 42 mm

- Micro Line Generator for small laser line widths and high power density in the focal plane
- With RS232 interface



DESCRIPTION

The laser diode beam source type 5LM15-S50+55CM-450-57-O06-A7.5-PS-7 has a fan angle of 15°.

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 PS](#) with micro-controller for control of the laser output power and serial interface (RS232). 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

5LM15-S50+55CM-450-57-O06-A7.5-PS-7

Series	5LM	
Order Code	5LM15-S50+55CM-450-57-O06-A7.5-PS-7	
Line profile	Gaussian Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	450 +10/-10 nm	
Laser output power	57 mW	
Laser safety class	3B	
Fan angle α	15 deg	
Focussing range	30-65 mm	
Working distance	42 mm	
Line length	11.9 mm	
Line width	0.017 mm	
Rayleigh range	1.03 mm	
Edge intensity	15 %	
Diameter laser module	25/28 mm	
Module length	77.3 mm	
Installation length	149.3 mm	
Cable length	1.5 m	
Connector type	Lumberg SV70 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	0.001 kHz	250 kHz
Modulation delay ON/OFF	3000/3000 μ s	0.6/0.2 μ s
Rise / Fall time	200000/200000 μ s	0.2/0.2 μ s
Interface	RS232	

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
PS051007E	Power Supply 5 V for laser modules with RS232 interface

RELATED PRODUCTS

LASER MODULES SERIES 5LMM	<ul style="list-style-type: none">▪ Macro Line, small fan angle▪ Gaussian intensity distribution▪ Extended depth of focus
LASER MODULES SERIES LNC-5LM	<ul style="list-style-type: none">▪ Micro Line, small fan angle▪ Gaussian intensity distribution▪ Low noise
LASER MODULES SERIES 13LR	<ul style="list-style-type: none">▪ Micro Line Generator, fan angle▪ Uniform intensity distribution
LASER MODULES SERIES 13LN	<ul style="list-style-type: none">▪ Micro Line, small fan angle▪ Uniform intensity distribution▪ Thin lines
LASER MODULES SERIES 5LP+25CM	<ul style="list-style-type: none">▪ Compact Micro Line, large fan angle▪ Gaussian intensity distribution
LASER MODULES SERIES 5LM+25CM	<ul style="list-style-type: none">▪ Compact Micro Line, small fan angle▪ Gaussian intensity distribution
LASER MODULES SERIES 5LP	<ul style="list-style-type: none">▪ Micro Line, large fan angle▪ Gaussian intensity distribution

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