

5LM8-S150+55CM-520-54-O11-A7.5-P-6

Micro Line Generator with a fan angle



FEATURES

Laser line with a fan angle and Gaussian intensity distribution.

- Line length: 21.8 mm
- Line width: 72 μm
- Wavelength: 520 nm
- Working distance: 143 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 5LM8-S150+55CM-520-54-O11-A7.5-P-6 has a fan angle of 8°.

The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 18 %. 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

5LM8-S150+55CM-520-54-O11-A7.5-P-6

Series	5LM	
Order Code	5LM8-S150+55CM-520-54-O11-A7.5-P-6	
Line profile	Gaussian Intensity Distribution	
Line type	Laser Micro Line	
Wavelength	520 +10/-5 nm	
Laser output power	54 mW	
Laser safety class	3B	
Fan angle α	8 deg	
Focussing range	120-255 mm	
Working distance	143 mm	
Line length	21.8 mm	
Line width	0.072 mm	
Rayleigh range	15.7 mm	
Edge intensity	18 %	
Diameter laser module	25/28 mm	
Module length	77.3 mm	
Installation length	250.3 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 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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