

5LMM8-S150-1+55CM-450-44-O06-A7.5-PS-7

Macro Line Generator with a fan angle



FEATURES

Laser line with a fan angle, Gaussian intensity distribution and extended depth of focus.

- Line length: 21.8 mm
- Line width: 99 μm
- Wavelength: 450 nm
- Working distance: 138 mm
- Depth of focus: 45.1 mm

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- Macro Line Generator for extended depth of focus
 - With RS232 interface



DESCRIPTION

The laser diode beam source type 5LMM8-S150-1+55CM-450-44-O06-A7.5-PS-7 has a fan angle of 8° and an extended depth of focus.

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 approx. 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

5LMM8-S150-1+55CM-450-44-O06-A7.5-PS-7

Series	5LMM	
Order Code	5LMM8-S150-1+55CM-450-44-O06-A7.5-PS-7	
Line profile	Gaussian Intensity Distribution	
Line type	Laser Macro Line	
Wavelength	450 +10/-10 nm	
Laser output power	44 mW	
Laser safety class	3B	
Fan angle α	8 deg	
Focussing range	115-250 mm	
Working distance	138 mm	
Line length	21.8 mm	
Line width	0.099 mm	
Depth of focus	45.1 mm	
Edge intensity	15 %	
Diameter laser module	25/28 mm	
Module length	78.5 mm	
Installation length	246.5 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 5LM	<ul style="list-style-type: none">▪ Micro Line, small fan angle▪ Gaussian intensity distribution
LASER MODULES SERIES LNC-5LMM	<ul style="list-style-type: none">▪ Macro Line, small fan angle▪ Gaussian intensity distribution▪ Extended depth of focus▪ Low Noise
LASER MODULES SERIES 13LRM	<ul style="list-style-type: none">▪ Macro Line Generator, fan angle▪ Uniform intensity distribution▪ Extended depth of focus
LASER MODULES SERIES 13LNM	<ul style="list-style-type: none">▪ Micro Line Generator, small fan angle▪ Uniform intensity distribution▪ Extended depth of focus
LASER MODULES SERIES 5LPM+25CM	<ul style="list-style-type: none">▪ Compact Macro Line, large fan angle▪ Gaussian intensity distribution▪ Extended depth of focus
LASER MODULES SERIES 5LMM+25CM	<ul style="list-style-type: none">▪ Compact Micro Line, small fan angle▪ Gaussian intensity distribution▪ Extended depth of focus

LASER MODULES SERIES 5LPM

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

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