13LR40-M125+55CM-785-78-Q06-T12-CS-7

Laser Micro Line Generator with a fan angle

FEATURES

Laser line with a fan angle and approx. uniform intensity distribution.

- Line length: 90 mm
- Line width: 47 µm
- Wavelength: 785 nm
- Working distance: 120 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 13LR40-M125+55CM-785-78-Q06-T12-CS-7 has a fan angle of 40° with a constant line width and approx. uniform intensity distribution along the laser line.

The fine-structure is a chain of equidistant dots with a spacing of approx. the line width. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics type CS 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

13LR40-M125+55CM-785-78-Q06-T12-CS-7

Series		13LR
Order Code		13LR40-M125+55CM-785-78-Q06-T12-CS-7
Line profile		Constant Intensity Distribution
Line type		Laser Micro Line
Wavelength		785 +10/-10 nm
Laser output power		78 mW
Laser safety class		3B
Fan angle α		40 deg
Focussing range		100-205 mm
Working distance		120 mm
Line length		90 mm
Line width		0.047 mm
Rayleigh range		3.06 mm
Edge intensity		80 %
Diameter laser module		25/28 mm
Module length		82.9 mm
Installation length		232.9 mm
Cable length		1.5 m
Connector type		Lumberg SV70 IEC 61076-2-106
Supply voltage		5 ± 0.2 V
Max. current consumption		0.25 A
Working temperature		0 - 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 µs	0.5/0.2 µs
Rise / Fall time	200000/200000 µs	0.8/0.4 µs
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 13LRM	▪ Macro Line Generator, fan angle ▪ Uniform intensity distribution ▪ Extended depth of focus
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
LASER MODULES SERIES 5LP	▪ Micro Line, **large** fan angle ▪ Gaussian intensity distribution

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