

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 <u>chain of equidistant dots</u> 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 <u>type CS</u> for control of the laser output power and serial interface (RS232). The output power can be controlled using the <u>modulation input ports (TTL and analog)</u> 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

| Line profile Constant Intensity Distribution Line type Laser Micro Line Wavelength 785 + 10/-10 nm Laser output power 78 mW Laser safety class 36 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 61076-2-100 Supply voltage 5 ± 0.2 v Max. current consumption 0.25 A Working temperature 0 - 40 °C Modulation inputs Analog TTI 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 | Series | ries 13LR | | |
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| Max. modulation frequency0.001 kHz250 kHzModulation delay ON/OFF3000/3000 μs0.5/0.2 μs | Modulation inputs | Analog | TTL | |
| Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μs | Input resistance | 9 kOhm | 9 kOhm | |
| | Max. modulation frequency | 0.001 kHz | 250 kHz | |
| Pine / Fall time | Modulation delay ON/OFF | 3000/3000 μs | 0.5/0.2 μs | |
| RISE / Fail time 200000/200000 μs 0.8/0.4 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 • Macro Line Generator, fan angle

SERIES 13LRM • Uniform intensity distribution

Extended depth of focus

LASER MODULES • Micro Line, small fan angle

SERIES 13LN • Uniform intensity distribution

Thin lines

LASER MODULES • Compact Micro Line, small fan angle

SERIES 5LM+25CM • Gaussian intensity distribution

LASER MODULES Compact Micro Line, large fan angle

SERIES 5LP+25CM • Gaussian intensity distribution

LASER MODULES • Micro Line, small fan angle

SERIES 5LM • Gaussian intensity distribution

LASER MODULES• Micro Line, **large** fan angle

SERIES 5LP • Gaussian intensity distribution



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