

13LN165-S1000+90CM-635-4-H10-M60-C-6

Micro Line Generator with a fan angle



FEATURES

Laser line with a fan angle, approx. uniform intensity distribution and very thin lines.

- Line length: 80 mm
- Line width: 58 μm
- Wavelength: 635 nm
- Working distance: 977 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 13LN165-S1000+90CM-635-4-H10-M60-C-6 has a fan angle of 3.8° and approx. uniform intensity distribution along the laser line.

More precisely, it is Gaussian clipped by an aperture with an edge intensity of 84 %. Across the laser line the intensity distribution is Gaussian. The line width is constant along 60 % of the central area, outside this area the line width differs up to 30 %.

The laser has integrated electronics [type C](#) 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.

For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.

TECHNICAL DATA

13LN165-S1000+90CM-635-4-H10-M60-C-6

| | | |
|---------------------------|--------------------------------------|-------------|
| Series | 13LN165 | |
| Order Code | 13LN165-S1000+90CM-635-4-H10-M60-C-6 | |
| Line profile | Constant Intensity Distribution | |
| Line type | Laser Micro Line | |
| Wavelength | 635 +10/-10 nm | |
| Laser output power | 4 mW | |
| Laser safety class | 3R | |
| Fan angle α | 3.8 deg | |
| Focussing range | 977-977 mm | |
| Working distance | 977 mm | |
| Line length | 80 mm | |
| Line width | 0.058 mm | |
| Rayleigh range | 8.25 mm | |
| Edge intensity | 84 % | |
| Diameter laser module | 25/28 mm | |
| Module length | 121.9 mm | |
| Installation length | 1128.9 mm | |
| Cable length | 1.5 m | |
| Connector type | Lumberg SV50 IEC 61076-2-106 | |
| Supply voltage | 5 \pm 0.2 V | |
| Max. current consumption | 0.25 A | |
| Working temperature | 0 - 40 °C | |
| Modulation inputs | Analog | TTL |
| Input resistance | 22 kOhm | 22 kOhm |
| Max. modulation frequency | 100 kHz | 100 kHz |
| Modulation delay ON/OFF | 1/0.5 μ s | 2/1 μ s |
| Rise / Fall time | 3/2 μ s | 3/2 μ s |

ACCESSORIES

9D-12

Screwdriver WS 1.2

PS051003E

Power Supply 5 V

RELATED PRODUCTS

LASER MODULES SERIES 13LNM

- Micro Line Generator, **small** fan angle
- Uniform intensity distribution
- Extended depth of focus

LASER MODULES SERIES LNC-13LN

- Micro Line, **small** fan angle
- Uniform intensity distribution
- Thin lines
- Low noise

LASER MODULES SERIES 13LR

- Micro Line Generator, fan angle
- Uniform intensity distribution

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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