# 13LN250-S1000+90CM-830-16-H19-M60-C-6

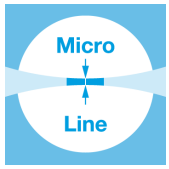
Micro Line Generator with a fan angle

## FEATURES

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

- Line length: 56 mm
- Line width: 75 µm
- Wavelength: 830 nm
- Working distance: 977 mm

- Micro Line Generator for small laser line widths and high power density in the focal plane




## DESCRIPTION

The laser diode beam source type 13LN250-S1000+90CM-830-16-H19-M60-C-6 has a fan angle of 2.5° and approx. uniform intensity distribution along the laser line.

More precisely, it is Gaussian clipped by an aperture with an edge intensity of 76 %. Across the laser line the intensity distribution is Gaussian. The line width is constant along 60 % of the central are, 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

13LN250-S1000+90CM-830-16-H19-M60-C-6

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|---|---|---|
| **Series** | 13LN250 | |
| **Order Code** | 13LN250-S1000+90CM-830-16-H19-M60-C-6 | |
| **Line profile** | Constant Intensity Distribution | |
| **Line type** | Laser Micro Line | |
| **Wavelength** | 830 +10/-10 nm | |
| **Laser output power** | 16 mW | |
| **Laser safety class** | 3B | |
| **Fan angle α** | 2.5 deg | |
| **Focussing range** | 977-977 mm | |
| **Working distance** | 977 mm | |
| **Line length** | 56 mm | |
| **Line width** | 0.075 mm | |
| **Rayleigh range** | 10.8 mm | |
| **Edge intensity** | 76 % | |
| **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 ± 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 µs | 2/1 µs |
| **Rise / Fall time** | 3/2 µs | 3/2 µs |

# ACCESSORIES

| | |
|---|---|
| **9D-12** | Screwdriver WS 1.2 |

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|---|---|
| **PS051003E** | Power Supply 5 V |

## RELATED PRODUCTS

| | |
|---|---|
| **LASER MODULES SERIES 13LNM** | ▪ Micro Line Generator, **small** fan angle<br>▪ Uniform intensity distribution<br>▪ Extended depth of focus |
| **LASER MODULES SERIES LNC-13LN** | ▪ Micro Line, **small** fan angle<br>▪ Uniform intensity distribution<br>▪ Thin lines<br>▪ Low noise |
| **LASER MODULES SERIES 13LR** | ▪ Micro Line Generator, fan angle<br>▪ Uniform intensity distribution |
| **LASER MODULES SERIES 5LM+25CM** | ▪ **Compact** Micro Line, **small** fan angle<br>▪ Gaussian intensity distribution |
| **LASER MODULES SERIES 5LP+25CM** | ▪ **Compact** Micro Line, **large** fan angle<br>▪ Gaussian intensity distribution |
| **LASER MODULES SERIES 5LM** | ▪ Micro Line, **small** fan angle<br>▪ Gaussian intensity distribution |
| **LASER MODULES SERIES 5LP** | ▪ Micro Line, **large** fan angle<br>▪ Gaussian intensity distribution |

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