

## 13LT-2000+90CM-445-48-G02-M60-P-6

Semi-telecentric Micro Line Generator



### FEATURES

Semi-telecentric laser line with constant line length 15mm and approx. uniform intensity distribution.

- Line length: 15 mm
- Line width: 91  $\mu\text{m}$
- Wavelength: 445 nm
- Working distance: 1993 mm

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



## DESCRIPTION

The laser diode beam source type 13LT-2000+90CM-445-48-G02-M60-P-6 produces a semi-telecentric laser line with 15 mm line length. The intensity profile is approx. uniform in line direction. More precisely, it is Gaussian clipped by an aperture with an edge intensity of 57 %. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics [type P](#) with micro-controller 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.

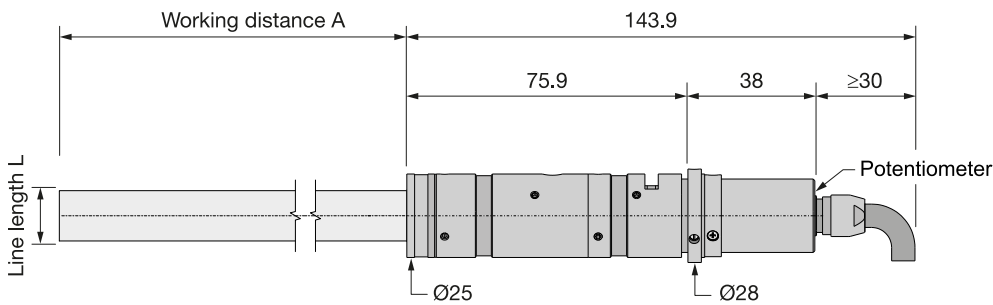
For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.

**TECHNICAL DATA**

13LT-2000+90CM-445-48-G02-M60-P-6

<b>Series</b>	13LT	
<b>Order Code</b>	13LT-2000+90CM-445-48-G02-M60-P-6	
<b>Line profile</b>	Constant Intensity Distribution	
<b>Line type</b>	Laser Micro Line	
<b>Wavelength</b>	445 +15/-5 nm	
<b>Laser output power</b>	48 mW	
<b>Laser safety class</b>	3B	
<b>Focussing range</b>	1993-1993 mm	
<b>Working distance</b>	1993 mm	
<b>Line length</b>	15 mm	
<b>Line width</b>	0.091 mm	
<b>Rayleigh range</b>	29.3 mm	
<b>Edge intensity</b>	57 %	
<b>Diameter laser module</b>	25/28 mm	
<b>Module length</b>	121.9 mm	
<b>Installation length</b>	2144.9 mm	
<b>Cable length</b>	1.5 m	
<b>Connector type</b>	Lumberg SV50 IEC 61076-2-106	
<b>Supply voltage</b>	5 ± 0.2 V	
<b>Max. current consumption</b>	0.5 A	
<b>Working temperature</b>	15 - 40 °C	
<b>Modulation inputs</b>	Analog	TTL
<b>Input resistance</b>	9 kOhm	9 kOhm
<b>Max. modulation frequency</b>	0.01 kHz	250 kHz
<b>Modulation delay ON/OFF</b>	3000/3000 µs	0.5/0.2 µs
<b>Rise / Fall time</b>	40000/40000 µs	0.5/0.5 µs

Dimensions (for a complete dimensional drawing please refer to the downloads section)



## DOWNLOADS



[951210000053.pdf](#)

## ACCESSORIES

**9D-12** Screwdriver WS 1.2

**PS051003E** Power Supply 5 V

## RELATED PRODUCTS

### LASER MODULES SERIES 13LTM

- Semi-telecentric Macro Line
- Uniform intensity distribution
- Constant line length **15 mm**
- Extended depth of focus

### LASER MODULES SERIES LNC-13LT

- Semi-telecentric Micro Line
- Uniform intensity distribution
- Constant line length **15 mm**
- Low noise

### LASER MODULES SERIES 5LT-1+25CM

- **Compact** semi-telecentric Micro Line
- Gaussian intensity distribution
- Constant line length ca. **4.8 mm**

### LASER MODULES SERIES 5LT-2+25CM

- **Compact** semi-telecentric Micro Line
- Gaussian intensity distribution
- Constant line length ca. **2 mm**

**LASER MODULES  
SERIES 5LT-1**

- Semi-telecentric Micro Line
- Gaussian intensity distribution
- Constant line length ca. **4.8 mm**

**LASER MODULES  
SERIES 5LT-2**

- Semi-telecentric Micro Line
- Gaussian intensity distribution
- Constant line length ca. **2 mm**

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