

## 13LTM-2000-41+90CM-450-13-O06-M60-P-6

Semi-telecentric Macro Line Generator Semi-telecentric Macro Line Generator

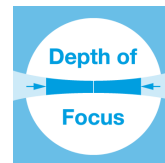


### FEATURES

Semi-telecentric laser line with constant line length 15mm, approx. uniform intensity distribution and extended depth of focus.

- Line length: 15 mm
- Line width: 324  $\mu\text{m}$
- Wavelength: 450 nm
- Working distance: 1988 mm
- Depth of focus: 501 mm

- Macro Line Generator for extended depth of focus



## DESCRIPTION

The laser diode beam source type 13LTM-2000-41+90CM-450-13-O06-M60-P-6 produces a semi-telecentric laser line with 15 mm line length and extended depth of focus. The intensity profile is approx. uniform in line direction. More precisely, it is Gaussian clipped by an aperture with an edge intensity of 75 %. The line width is constant along the laser line. Across the laser line the intensity distribution is approx. 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.

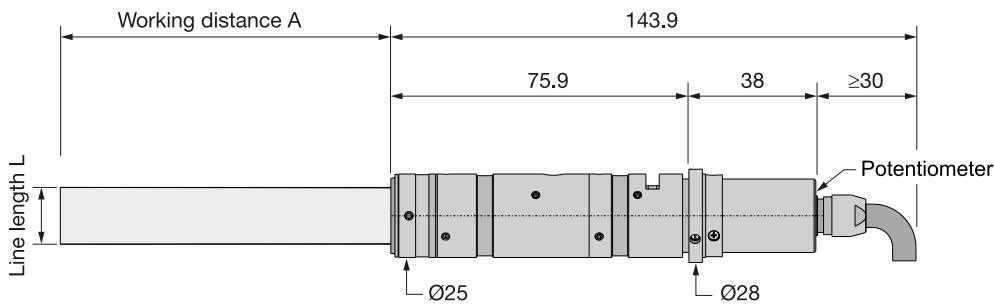
For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.

## TECHNICAL DATA

13LTM-2000-41+90CM-450-13-O06-M60-P-6

<b>Series</b>	13LTM	
<b>Order Code</b>	13LTM-2000-41+90CM-450-13-O06-M60-P-6	
<b>Line profile</b>	Constant Intensity Distribution	
<b>Line type</b>	Laser Macro Line	
<b>Wavelength</b>	450 +10/-10 nm	
<b>Laser output power</b>	13 mW	
<b>Laser safety class</b>	3B	
<b>Focussing range</b>	1988-1988 mm	
<b>Working distance</b>	1988 mm	
<b>Line length</b>	15 mm	
<b>Line width</b>	0.324 mm	
<b>Depth of focus</b>	501 mm	
<b>Edge intensity</b>	75 %	
<b>Diameter laser module</b>	25/28 mm	
<b>Module length</b>	127.3 mm	
<b>Installation length</b>	2145.3 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



[951210000045.pdf](#)

## ACCESSORIES

9D-12 Screwdriver WS 1.2

PS051003E Power Supply 5 V

## RELATED PRODUCTS

### LASER MODULES SERIES 13LT

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

### LASER MODULES SERIES LNC-13LTM

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

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

- **Compact** semi-telecentric Macro Line
- Gaussian intensity distribution
- Constant line length ca. **4.8 mm**
- Extended depth of focus

**LASER MODULES**  
**SERIES 5LTM-2+25CM**

- **Compact** semi-telecentric Macro Line
- Gaussian intensity distribution
- Constant line length ca. **2 mm**
- Extended depth of focus

**LASER MODULES**  
**SERIES 5LTM-1**

- Semi-telecentric Macro Line
- Gaussian intensity distribution
- Constant line length ca. **4.8 mm**
- Extended depth of focus

**LASER MODULES**  
**SERIES 5LTM-2**

- Semi-telecentric Macro Line
- Gaussian intensity distribution
- Constant line length ca. **2 mm**
- Extended depth of focus

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