

## 13LT-500+90CM-405-43-X15-M60-PS-7

Semi-telecentric Micro Line Generator

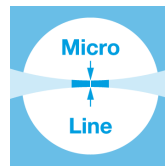


### FEATURES

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

- Line length: 15 mm
- Line width: 18  $\mu\text{m}$
- Wavelength: 405 nm
- Working distance: 493 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 13LT-500+90CM-405-43-X15-M60-PS-7 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 71 %. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics [type PS](#) with micro-controller for control of the laser output power and serial interface (RS232). The output power can be controlled using the [modulation input ports \(TTL and analog\)](#), or manually using the potentiometer.

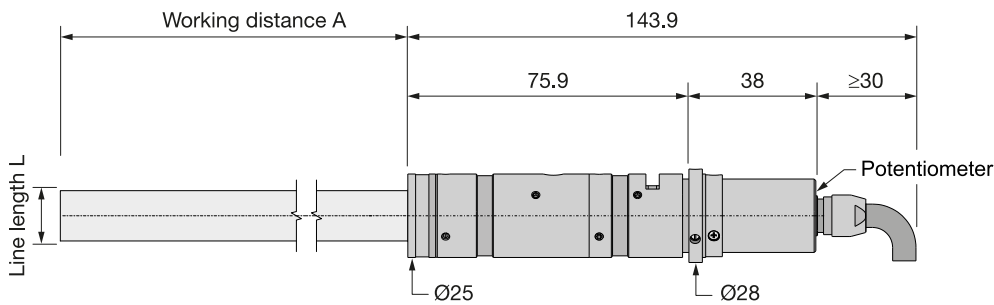
For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.

## TECHNICAL DATA

13LT-500+90CM-405-43-X15-M60-PS-7

<b>Series</b>	13LT	
<b>Order Code</b>	13LT-500+90CM-405-43-X15-M60-PS-7	
<b>Line profile</b>	Constant Intensity Distribution	
<b>Line type</b>	Laser Micro Line	
<b>Wavelength</b>	405 +5/-5 nm	
<b>Laser output power</b>	43 mW	
<b>Laser safety class</b>	3B	
<b>Focussing range</b>	493-493 mm	
<b>Working distance</b>	493 mm	
<b>Line length</b>	15 mm	
<b>Line width</b>	0.018 mm	
<b>Rayleigh range</b>	1.32 mm	
<b>Edge intensity</b>	71 %	
<b>Diameter laser module</b>	25/28 mm	
<b>Module length</b>	121.9 mm	
<b>Installation length</b>	644.9 mm	
<b>Cable length</b>	1.5 m	
<b>Connector type</b>	Lumberg SV70 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>	0.001 kHz	250 kHz
<b>Modulation delay ON/OFF</b>	3000/3000 µs	0.6/0.2 µs
<b>Rise / Fall time</b>	200000/200000 µs	0.2/0.2 µs
<b>Interface</b>	RS232	

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



## DOWNLOADS



[951210000053.pdf](#)

## ACCESSORIES

9D-12

Screwdriver WS 1.2

PS051007E

Power Supply 5 V for laser modules with RS232 interface

## 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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