

## 13LTM-165-41+90CM-445-23-G02-M60-PS-7

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: 26  $\mu\text{m}$
- Wavelength: 445 nm
- Working distance: 156 mm
- Depth of focus: 3.37 mm

- Macro Line Generator for extended depth of focus
- With RS232 interface



## DESCRIPTION

The laser diode beam source type 13LTM-165-41+90CM-445-23-G02-M60-PS-7 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 57 %. 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 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.

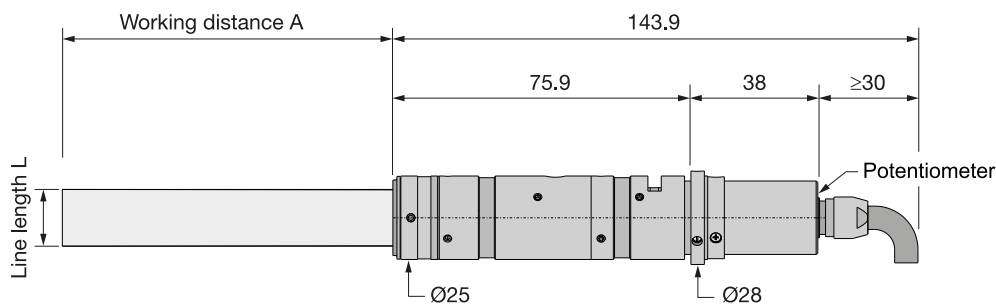
For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.

## TECHNICAL DATA

13LTM-165-41+90CM-445-23-G02-M60-PS-7

Series	13LTM	
Order Code	13LTM-165-41+90CM-445-23-G02-M60-PS-7	
Line profile	Constant Intensity Distribution	
Line type	Laser Macro Line	
Wavelength	445 +15/-5 nm	
Laser output power	23 mW	
Laser safety class	3B	
Focussing range	156-156 mm	
Working distance	156 mm	
Line length	15 mm	
Line width	0.026 mm	
Depth of focus	3.37 mm	
Edge intensity	57 %	
Diameter laser module	25/28 mm	
Module length	127.3 mm	
Installation length	313.3 mm	
Cable length	1.5 m	
Connector type	Lumberg SV70 IEC 61076-2-106	
Supply voltage	5 ± 0.2 V	
Max. current consumption	0.5 A	
Working temperature	15 - 40 °C	
Modulation inputs	Analog	TTL
Input resistance	9 kOhm	9 kOhm
Max. modulation frequency	0.001 kHz	250 kHz
Modulation delay ON/OFF	3000/3000 µs	0.6/0.2 µs
Rise / Fall time	200000/200000 µs	0.2/0.2 µs
Interface	RS232	

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



## DOWNLOADS



[951210000045.pdf](#)

## ACCESSORIES

9D-12

Screwdriver WS 1.2

PS051007E

Power Supply 5 V for laser modules with RS232 interface

## 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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