

13LTM-165-41+90CM-685-7-H13-M60-CS-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: 41 μm
Wavelength: 685 nm
Working distance: 156 mm
Depth of focus: 5.19 mm

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





DESCRIPTION

The laser diode beam source type 13LTM-165-41+90CM-685-7-H13-M60-CS-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 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 <u>type CS</u> for control of the laser output power and serial interface (RS232). The output power can be controlled using the <u>modulation input ports (TTL and analog)</u> or manually using the potentiometer.



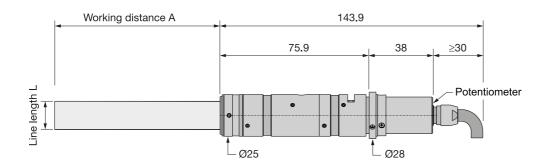
For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.

TECHNICAL DATA

13LTM-165-41+90CM-685-7-H13-M60-CS-7

Line profile Constant Intensity Distribution Line type Laser Macro Line Wavelength 685 + 10/-10 m Laser output power 7 mV Laser safety class 3 Focussing range 156-156 m Working distance 156 m Line length 15 m Line width 0.041 m Depth of focus 5.19 m Edge intensity 75 m Diameter laser module 25/28 m Module length 127.3 m Installation length 313.3 m Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kH Modulation delay ON/OFF 3000/3000 µs 0.5/0.2 µs	eries 13LTM			
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Laser safety class 3 Focussing range 156-156 mm Working distance 156 mm Line length 15 mm Line width 0.041 mm Depth of focus 5.19 mm Edge intensity 75 mm Diameter laser module 25/28 mm Module length 127.3 mm Installation length 313.3 mm Cable length 1.5 mm Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kH Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Wavelength	685 +10/-10 nm		
Focussing range 156-156 mm Working distance 156 mm Line length 15 mm Line width 0.041 mm Depth of focus 5.19 mm Edge intensity 75 mm Diameter laser module 25/28 mm Module length 127.3 mm Installation length 313.3 mm Cable length 1.5 mm Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kH Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Laser output power	7 mW		
Working distance 156 mm Line length 15 mm Line width 0.041 mm Depth of focus 5.19 mm Edge intensity 75 mm Diameter laser module 25/28 mm Module length 127.3 mm Installation length 313.3 mm Cable length 1.5 mm Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kH Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Laser safety class	3В		
Line length 15 mm Line width 0.041 mm Depth of focus 5.19 mm Edge intensity 75 mm Diameter laser module 25/28 mm Module length 127.3 mm Installation length 313.3 mm Cable length 1.5 mm Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Focussing range	156-156 mm		
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Depth of focus 5.19 mm Edge intensity 75 °C Diameter laser module 25/28 mm Module length 127.3 mm Installation length 313.3 mm Cable length 1.5 mm Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kH Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Line length	15 mm		
Edge intensity 75 °C Diameter laser module 25/28 mm Module length 127.3 mm Installation length 313.3 mm Cable length 1.5 mm Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25. Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Line width	0.041 mm		
Diameter laser module 25/28 mm Module length 127.3 mm Installation length 313.3 mm Cable length 1.5 mm Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Depth of focus	5.19 mm		
Module length 127.3 mm Installation length 313.3 mm Cable length 1.5 mm Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Edge intensity	75 %		
Installation length 313.3 min Cable length 1.5 min Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kH Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Diameter laser module	25/28 mm		
Cable length1.5 mConnector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHzModulation delay ON/OFF3000/3000 μs0.5/0.2 μ	Module length	127.3 mm		
Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Installation length	313.3 mm		
Supply voltage5 ± 0.2Max. current consumption0.25Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHzModulation delay ON/OFF3000/3000 μs0.5/0.2 μ	Cable length	1.5 m		
Max. current consumption0.25.Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHModulation delay ON/OFF3000/3000 μs0.5/0.2 μ	Connector type	Lumberg SV70 IEC 61076-2-106		
Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHModulation delay ON/OFF3000/3000 μs0.5/0.2 μ	Supply voltage	5 ± 0.2 V		
Modulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHzModulation delay ON/OFF3000/3000 μs0.5/0.2 μ	Max. current consumption	0.25 A		
Input resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHzModulation delay ON/OFF3000/3000 μs0.5/0.2 μ	Working temperature	0 - 40 °C		
Max. modulation frequency0.001 kHz250 kHModulation delay ON/OFF3000/3000 μs0.5/0.2 μ	Modulation inputs	Analog	TTL	
Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Input resistance	9 kOhm	9 kOhm	
	Max. modulation frequency	0.001 kHz	250 kHz	
Rise / Fall time 200000/200000 us 0.8/0.4 u	Modulation delay ON/OFF	3000/3000 μs	0.5/0.2 μs	
200000/20000 μο	Rise / Fall time	200000/200000 μs	0.8/0.4 μs	
Interface RS23				

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



DOWNLOADS



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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