

13LT-4000+90CM-450-28-O06-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: 172 µm
Wavelength: 450 nm
Working distance: 3993 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-4000+90CM-450-28-O06-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 75 %. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics <u>type PS</u> with micro-controller 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.

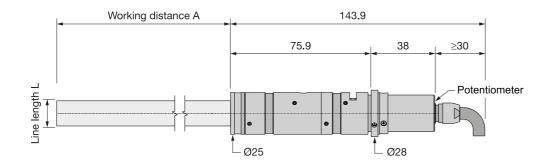


TECHNICAL DATA

13LT-4000+90CM-450-28-O06-M60-PS-7

Order Code 13LT-4000+90CM-450-28-O06-M60-PS-7 Line profile Constant Intensity Distribution Line type Laser Micro Line Wavelength 450 +10/-10 nm Laser output power 28 mW Laser safety class 3B Focussing range 3993-3993 mm Working distance 3993 mm Line length 15 mm Line width 0.172 mm Rayleigh range 103 mm Edge intensity 75 % Diameter laser module 25/28 mm Module length 121.9 mm Installation length 4144.9 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	Series 13LT			
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Working distance 3993 mm Line length 15 mm Line width 0.172 mm Rayleigh range 103 mm Edge intensity 75 % Diameter laser module 25/28 mm Module length 121.9 mm Installation length 4144.9 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A 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	Laser safety class	3B		
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Line width 0.172 mm Rayleigh range 103 mm Edge intensity 75 % Diameter laser module 25/28 mm Module length 121.9 mm Installation length 4144.9 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	Working distance	3993 mm		
Rayleigh range 103 mm Edge intensity 75 % Diameter laser module 25/28 mm Module length 121.9 mm Installation length 4144.9 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	Line length	15 mm		
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Diameter laser module25/28 mmModule length121.9 mmInstallation length4144.9 mmCable length1.5 mConnector typeLumberg SV70 IEC 61076-2-106Supply voltage $5 \pm 0.2 \text{V}$ Max. current consumption0.5 AWorking temperature $15 - 40 ^{\circ}\text{C}$ Modulation inputsAnalogTTLInput resistance 9kOhm 9kOhm Max. modulation frequency 0.001kHz 250kHz Modulation delay ON/OFF $3000/3000 \mu \text{s}$ $0.6/0.2 \mu \text{s}$ Rise / Fall time $200000/200000 \mu \text{s}$ $0.2/0.2 \mu \text{s}$	Rayleigh range	103 mm		
Module length 121.9 mm Installation length 4144.9 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	Edge intensity	75 %		
Installation length 4144.9 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	Diameter laser module	25/28 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	Module length	121.9 mm		
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	Installation length	4144.9 mm		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Cable length	1.5 m		
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	Connector type	Lumberg SV70 II	Lumberg SV70 IEC 61076-2-106	
Working temperature15 - 40 °CModulation inputsAnalogTTLInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHzModulation delay ON/OFF3000/3000 μs0.6/0.2 μsRise / Fall time200000/200000 μs0.2/0.2 μs	Supply voltage	5 ± 0.2 V		
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	Max. current consumption	0.5 A		
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	Working temperature		15 - 40 °C	
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	Modulation inputs	Analog	TTL	
Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Input resistance	9 kOhm	9 kOhm	
Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Max. modulation frequency	0.001 kHz	250 kHz	
	Modulation delay ON/OFF	3000/3000 μs	0.6/0.2 μs	
Interface RS232	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



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 LineGaussian 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

This is a printout of the page https://sukhamburg.com/products/details/13LT-4000 90CM-450-28-006-M60-PS-7 from 4/30/2024

CONTACT

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