

5LT-250-1+55CM-785-90-Q06-A8-CS-7

Semi-telecentric Micro Line Generator



FEATURES

Semi-telecentric laser line with constant line length of 4.8 mm.

Line length: 4.8 mm
Line width: 117 μm
Wavelength: 785 nm
Working distance: 250 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 5LT-250-1+55CM-785-90-Q06-A8-CS-7 produces a semi-telecentric laser line with 4.8 mm line length. The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 3 %. 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 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

5LT-250-1+55CM-785-90-Q06-A8-CS-7

Line profile Line type Laser Micro Line Wavelength 785 +10/-10 nr Laser output power 90 mV Laser safety class Focussing range 250-250 mr Working distance 250 mr Line length 4.8 mr Line width 0.117 mr Rayleigh range 25/28 mr Edge intensity Diameter laser module 10 module length 73.1 mr Installation length 73.1 mr Cable length 73.1 mr Cable length 75.1 c Connector type 10 max. current consumption 10 mr Modulation inputs 10 mr Modulation frequency 10 mr Module length 10 mr Modulation frequency 10 mr Module length 10 mr Modulation frequency 10 mr Modulation f	Series		5LT
Line type Laser Micro Line Wavelength 785 + 10/-10 nr Laser output power 90 m/s Laser safety class 3 Focussing range 250-250 mr Working distance 250 mr Line length 4.8 mr Line width 0.117 mr Rayleigh range 27.6 mr Edge intensity 39 Diameter laser module 25/28 mr Module length 73.1 mr Installation length 353.1 mr Cable length 1.5 mr Cable length 1.5 mr Connector type Lumberg SV70 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 mr Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kH	Order Code	5LT-250-1+55CM-785-90-Q06-A8-CS-7	
Wavelength 785 + 10/-10 nr Laser output power 90 mV Laser safety class 3 Focussing range 250-250 mr Working distance 250 mr Line length 4.8 mr Line width 0.117 mr Rayleigh range 27.6 mr Edge intensity 3° Diameter laser module 25/28 mr Module length 73.1 mr Installation length 353.1 mr Cable length 1.5 mr 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	Line profile	Gaussian Intensity Distribution	
Laser output power 90 mV Laser safety class 3 Focussing range 250-250 mm Working distance 250 mm Line length 4.8 mm Line width 0.117 mm Rayleigh range 27.6 mm Edge intensity 39 Diameter laser module 25/28 mm Module length 73.1 mm Installation length 353.1 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	Line type	Laser Micro Line	
Laser safety class 3 Focussing range 250-250 mm Working distance 250 mm Line length 4.8 mm Line width 0.117 mm Rayleigh range 27.6 mm Edge intensity 39 Diameter laser module 25/28 mm Module length 73.1 mm Installation length 353.1 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	Wavelength	785 +10/-10 nm	
Focussing range 250-250 mm Working distance 250 mm Line length 4.8 mm Line width 0.117 mm Rayleigh range 27.6 mm Edge intensity 3° Diameter laser module 25/28 mm Module length 73.1 mm Installation length 353.1 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	Laser output power	90 mW	
Working distance 250 mm Line length 4.8 mm Line width 0.117 mm Rayleigh range 27.6 mm Edge intensity 39 Diameter laser module 25/28 mm Module length 73.1 mm Installation length 353.1 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	Laser safety class	3В	
Line length 4.8 mm Line width 0.117 mm Rayleigh range 27.6 mm Edge intensity 3 gm Diameter laser module 25/28 mm Module length 73.1 mm Installation length 353.1 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	Focussing range	250-250 mm	
Line width 0.117 mm Rayleigh range 27.6 mm Edge intensity 3 9 Diameter laser module 25/28 mm Module length 73.1 mm Installation length 353.1 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	Working distance	250 mm	
Rayleigh range 27.6 mm Edge intensity 3 9 Diameter laser module 25/28 mm Module length 73.1 mm Installation length 353.1 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	Line length	4.8 mm	
Edge intensity Diameter laser module 25/28 mm Module length 73.1 mm Installation length 353.1 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 °m Modulation inputs Analog TI Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kH	Line width	0.117 mm	
Diameter laser module25/28 mmModule length73.1 mmInstallation length353.1 mmCable length1.5 mmConnector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25 mmWorking temperature0 - 40 %Modulation inputsAnalogInput resistance9 kOhmMax. modulation frequency0.001 kHz250 kHz	Rayleigh range	27.6 mm	
Module length73.1 mmInstallation length353.1 mmCable length1.5 mmConnector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25 mmWorking temperature0 - 40 mmModulation inputsAnalogInput resistance9 kOhmMax. modulation frequency0.001 kHz250 kH	Edge intensity	3%	
Installation length353.1 mmCable length1.5 mmConnector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25 mmWorking temperature0 - 40 mmModulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHz	Diameter laser module	25/28 mm	
Cable length1.5 mConnector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25 mWorking temperature0 - 40 mModulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHz	Module length	73.1 mm	
Connector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25.Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhrMax. modulation frequency0.001 kHz250 kHz	Installation length	353.1 mm	
Supply voltage $5 \pm 0.2^\circ$ Max. current consumption 0.25° Working temperature $0 - 40^\circ$ Modulation inputsAnalogInput resistance 9kOhm Max. modulation frequency 0.001kHz	Cable length	1.5 m	
Max. current consumption0.25 /rWorking temperature0 - 40 °rModulation inputsAnalogTTInput resistance9 kOhm9 kOhrMax. modulation frequency0.001 kHz250 kHz	Connector type	Lumberg SV70 IEC 61076-2-106	
Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhrMax. modulation frequency0.001 kHz250 kHz	Supply voltage	5 ± 0.2 V	
Modulation inputsAnalogTTInput resistance9 kOhm9 kOhrMax. modulation frequency0.001 kHz250 kHz	Max. current consumption	0.25 A	
Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz	Working temperature	0 - 40 °C	
Max. modulation frequency 0.001 kHz 250 kH	Modulation inputs	Analog	TTL
· · · · · · · · · · · · · · · · · · ·	Input resistance	9 kOhm	9 kOhm
Modulation delay ON/OFF 3000/3000 μs 0.5/0.2 μ	Max. modulation frequency	0.001 kHz	250 kHz
	Modulation delay ON/OFF	3000/3000 μs	0.5/0.2 μs
Rise / Fall time 200000/200000 μs 0.8/0.4 μ	Rise / Fall time	200000/200000 μs	0.8/0.4 μs
Interface RS23			



DOWNLOADS



ACCESSORIES

9D-12 Screwdriver WS 1.2

13MK-25-36-10-F Mounting Console with flat base plate

13MK-25-36-10-M Mounting Console with base plate with dovetail

profile

PS051007E Power Supply 5 V for laser modules with RS232

interface

RELATED PRODUCTS

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 LNC-5LTM-1

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

LASER MODULES SERIES 13LT

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

This is a printout of the page $\underline{\text{https://sukhamburg.com/products/details/5LT-250-1}}$ from $\underline{\text{4/24/2024}}$

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