

5LT-50-2+55CM-405-88-X15-A7.5-P-6

Semi-telecentric Micro Line Generator



FEATURES

Semi-telecentric laser line with constant line length of 2.4 mm.

Line length: 2.4 mm
Line width: 6 µm
Wavelength: 405 nm
Working distance: 45 mm

 Micro Line Generator for small laser line widths and high power density in the focal plane



DESCRIPTION

The laser diode beam source type 5LT-50-2+55CM-405-88-X15-A7.5-P-6 produces a semi-telecentric laser line with 2.4 mm line length. In this case the line length is given on the 13.5%-level. The intensity profile is Gaussian in line direction and the line is truncated at 4.8 mm. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics $\underline{type\ P}$ with micro-controller for control of the laser output power. The output power can be controlled using the $\underline{modulation\ input\ ports\ (TTL\ and\ analog)}$ 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

5LT-50-2+55CM-405-88-X15-A7.5-P-6

Line type Laser Micro Line Wavelength 405 +5/-5 ni Laser output power 88 mix Laser safety class Focussing range 45-45 mix Working distance 45 mix Line length 2.4 mix Line width 0.006 mix Rayleigh range 0.141 mix Edge intensity Diameter laser module 104 mix Installation length 125/28 mix Installation length 125/28 mix Installation length 125 umberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Modulation inputs Analog Tinput resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kH	Series		5LT
Line type Laser Micro Lin Wavelength 405 +5/-5 ni Laser output power 88 m/s Laser safety class 3 Focussing range 45-45 mi Working distance 45 mi Line length 2.4 mi Line width 0.006 mi Rayleigh range 60.141 mi Edge intensity 100 Diameter laser module 25/28 mi Installation length 73.1 mi Installation length 1.5 mi Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40° Modulation inputs Analog Ti Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Order Code	5LT-50-2+55CM-405-88-X15-A7.5-P-6	
Wavelength 405 +5/-5 m Laser output power 88 m/s Laser safety class 3 Focussing range 45-45 m Working distance 45 m Line length 2.4 m Line width 0.006 m Rayleigh range 0.141 m Edge intensity 10° Diameter laser module 25/28 m Module length 73.1 m Installation length 148.1 m Cable length 1.5 Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Line profile	Gaussian Intensity Distribution	
Laser output power 88 m/s Laser safety class 3 Focussing range 45-45 m/s Working distance 45 m/s Line length 2.4 m/s Line width 0.006 m/s Rayleigh range 0.141 m/s Edge intensity 10 m/s Diameter laser module 25/28 m/s Module length 73.1 m/s Installation length 148.1 m/s Cable length 1.5 m/s Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Line type	Laser Micro Line	
Laser safety class 3 Focussing range 45-45 mm Working distance 45 mm Line length 2.4 mm Line width 0.006 mm Rayleigh range 0.141 mm Edge intensity 10 mm Diameter laser module 25/28 mm Module length 73.1 mm Installation length 148.1 mm Cable length 1.5 mm Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Wavelength	405 +5/-5 nm	
Focussing range 45-45 mm Working distance 45 mm Line length 2.4 mm Line width 0.006 mm Rayleigh range 0.141 mm Edge intensity 10 mm Diameter laser module 25/28 mm Module length 73.1 mm Installation length 148.1 mm Cable length 1.5 Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Laser output power	88 mW	
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Line width 0.006 mm Rayleigh range 0.141 mm Edge intensity 10 mm Diameter laser module 25/28 mm Module length 73.1 mm Installation length 148.1 mm Cable length 1.5 mm Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Working distance	45 mm	
Rayleigh range 0.141 mg Edge intensity 10 g Diameter laser module 25/28 mg Module length 73.1 mg Installation length 148.1 mg Cable length 1.5 g Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Line length	2.4 mm	
Edge intensity 10 °C Diameter laser module 25/28 mm Module length 73.1 mm Installation length 148.1 mm Cable length 1.5 mm Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Line width	0.006 mm	
Diameter laser module 25/28 mm Module length 73.1 mm Installation length 148.1 mm Cable length 1.5 mm Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Rayleigh range	0.141 mm	
Module length73.1 mmInstallation length148.1 mmCable length1.5 mmConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.5Working temperature15 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.01 kHz250 kHz	Edge intensity	10 %	
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Cable length1.5 mConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.5Working temperature15 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.01 kHz250 kHz	Module length	73.1 mm	
Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature 15 - 40 ° Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Installation length	148.1 mm	
Supply voltage 5 ± 0.2 Max. current consumption 0.5 Working temperature $15 - 40^{\circ}$ Modulation inputsAnalogTTInput resistance 9kOhm 9kOhm Max. modulation frequency 0.01kHz 250kHz	Cable length	1.5 m	
Max. current consumption0.5Working temperature15 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.01 kHz250 kHz	Connector type	Lumberg SV50 IEC 61076-2-106	
Working temperature15 - 40 °Modulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.01 kHz250 kHz	Supply voltage	5 ± 0.2 V	
Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kH	Max. current consumption	0.5 A	
Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.01 kHz 250 kHz	Working temperature	15 - 40 °C	
Max. modulation frequency 0.01 kHz 250 kHz	Modulation inputs	Analog	TTL
	Input resistance	9 kOhm	9 kOhm
Modulation delay ON/OFF	Max. modulation frequency	0.01 kHz	250 kHz
Modulation delay ON/OFF 3000/3000 μS 0.5/0.2 μ	Modulation delay ON/OFF	3000/3000 μs	0.5/0.2 μs
Rise / Fall time 40000/40000 μs 0.5/0.5 μ	Rise / Fall time	40000/40000 μs	0.5/0.5 μs

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

PS051003E Power Supply 5 V

RELATED PRODUCTS

LASER MODULES Semi-telecentric Macro Line **SERIES 5LTM-2** Gaussian intensity distribution

Constant line length ca. 2 mm

Extended depth of focus

LASER MODULES Semi-telecentric Macro Line **SERIES LNC-5LTM-2**

Gaussian intensity distribution

Constant line length ca. 2 mm Extended depth of focus

Low noise

LASER MODULES Semi-telecentric Micro Line **SERIES 13LT**

Uniform intensity distribution

Constant line length 15 mm

LASER MODULES Compact semi-telecentric Micro Line

SERIES 5LT-1+25CM Gaussian intensity distribution

Constant line length ca. 4.8 mm

LASER MODULES ■ Semi-telecentric Micro Line **SERIES 5LT-1**

Gaussian intensity distribution

Constant line length ca. 4.8 mm

LASER MODULES Compact semi-telecentric Micro Line

SERIES 5LT-2+25CM Gaussian intensity distribution

■ Constant line length ca. 2 mm



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