

# 5LT-500-2+55CM-785-90-Q06-A8-C-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: 133 μm
Wavelength: 785 nm
Working distance: 491 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-500-2+55CM-785-90-Q06-A8-C-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  $\underline{type\ C}$  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-500-2+55CM-785-90-Q06-A8-C-6

Line profile       Gaussian Intensity Distribution         Line type       Laser Micro Line         Wavelength       785 ±10/-10 m         Laser output power       90 m/s         Laser safety class       3         Focussing range       491-m         Working distance       491 m         Line length       2.4 m         Line width       0.133 m         Rayleigh range       35.4 m         Edge intensity       3°         Diameter laser module       25/28 m         Module length       73.1 m         Installation length       594.1 m         Cable length       1.50         Connector type       Lumberg SV50 IEC 61076-2-10         Supply voltage       5 ± 0.2         Max. current consumption       0.25         Working temperature       0 - 40°         Modulation inputs       Analog       TT         Input resistance       22 kOhm       22 kOhm	Series		5LT	
Line type Laser Micro Line Wavelength 785 +10/-10 m Laser output power 90 m Laser safety class Focussing range 491-491 m Working distance 491 m Line length 2.4 m Line width 0.133 m Rayleigh range 35.4 m Edge intensity 36 Diameter laser module Module length 73.1 m Installation length 594.1 m Cable length 1.5 m Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 Max. current consumption 0.25 Working temperature 0 - 40 ° Modulation inputs Analog Tr Input resistance 22 kOhm 785 +10/-10 m 785	Order Code	5LT-500-2+55CM-785-90-Q06-A8-C-6		
Wavelength         785 ± 10/-10 m           Laser output power         90 m           Laser safety class         3           Focussing range         491-491 m           Working distance         491 m           Line length         2.4 m           Line width         0.133 m           Rayleigh range         35.4 m           Edge intensity         3           Diameter laser module         25/28 m           Module length         73.1 m           Installation length         594.1 m           Cable length         1.5 m           Connector type         Lumberg SV50 IEC 61076-2-10           Supply voltage         5 ± 0.2           Max. current consumption         0.25           Working temperature         0 - 40°           Modulation inputs         Analog         TT           Input resistance         22 kOhm         22 kOhm	Line profile	Gaussian Intensity Distribution		
Laser output power         90 mV           Laser safety class         3           Focussing range         491-491 m           Working distance         491 m           Line length         2.4 m           Line width         0.133 m           Rayleigh range         35.4 m           Edge intensity         3°           Diameter laser module         25/28 m           Module length         73.1 m           Installation length         594.1 m           Cable length         1.5 m           Connector type         Lumberg SV50 IEC 61076-2-10           Supply voltage         5 ± 0.2           Max. current consumption         0.25           Working temperature         0 - 40°           Modulation inputs         Analog         TT           Input resistance         22 kOhm         22 kOhm	Line type	Laser Micro Line		
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Focussing range         491-491 mm           Working distance         491 mm           Line length         2.4 mm           Line width         0.133 mm           Rayleigh range         35.4 mm           Edge intensity         3°           Diameter laser module         25/28 mm           Module length         73.1 mm           Installation length         594.1 mm           Cable length         1.5 mm           Connector type         Lumberg SV50 IEC 61076-2-10           Supply voltage         5 ± 0.2           Max. current consumption         0.25           Working temperature         0 - 40°           Modulation inputs         Analog         TT           Input resistance         22 kOhm         22 kOhm	Laser output power	90 mW		
Working distance         491 mm           Line length         2.4 mm           Line width         0.133 mm           Rayleigh range         35.4 mm           Edge intensity         3°           Diameter laser module         25/28 mm           Module length         73.1 mm           Installation length         594.1 mm           Cable length         1.5 mm           Connector type         Lumberg SV50 IEC 61076-2-10           Supply voltage         5 ± 0.2           Max. current consumption         0.25           Working temperature         0 - 40°           Modulation inputs         Analog         TT           Input resistance         22 kOhm         22 kOhm	Laser safety class	3B		
Line length         2.4 mm           Line width         0.133 mm           Rayleigh range         35.4 mm           Edge intensity         3°           Diameter laser module         25/28 mm           Module length         73.1 mm           Installation length         594.1 mm           Cable length         1.5 mm           Connector type         Lumberg SV50 IEC 61076-2-10           Supply voltage         5 ± 0.2           Max. current consumption         0.25           Working temperature         0 - 40°           Modulation inputs         Analog         TT           Input resistance         22 kOhm         22 kOhm	Focussing range	491-491 mm		
Line width         0.133 m           Rayleigh range         35.4 m           Edge intensity         3°           Diameter laser module         25/28 m           Module length         73.1 m           Installation length         594.1 m           Cable length         1.5 m           Connector type         Lumberg SV50 IEC 61076-2-10           Supply voltage         5 ± 0.2           Max. current consumption         0.25           Working temperature         0 - 40°           Modulation inputs         Analog         TT           Input resistance         22 kOhm         22 kOhm	Working distance	491 mm		
Rayleigh range         35.4 mm           Edge intensity         3°C           Diameter laser module         25/28 mm           Module length         73.1 mm           Installation length         594.1 mm           Cable length         1.5 mm           Connector type         Lumberg SV50 IEC 61076-2-10           Supply voltage         5 ± 0.2           Max. current consumption         0.25           Working temperature         0 - 40 °           Modulation inputs         Analog         TT           Input resistance         22 kOhm         22 kOhm	Line length	2.4 mm		
Edge intensity3 colorDiameter laser module25/28 mmModule length73.1 mmInstallation length594.1 mmCable length1.5 mmConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25Working temperature0 - 40 colorModulation inputsAnalogTTInput resistance22 kOhm22 kOhm	Line width	0.133 mm		
Diameter laser module25/28 mmModule length73.1 mmInstallation length594.1 mmCable length1.5 mmConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25Working temperature0 - 40 °Modulation inputsAnalogInput resistance22 kOhm	Rayleigh range	35.4 mm		
Module length73.1 mmInstallation length594.1 mmCable length1.5 mmConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance22 kOhm22 kOhm	Edge intensity	3 %		
Installation length 594.1 mm  Cable length 1.5 mm  Connector type Lumberg SV50 IEC 61076-2-10  Supply voltage 5±0.2  Max. current consumption 0.25  Working temperature 0 - 40 °  Modulation inputs Analog TT  Input resistance 22 kOhm 22 kOhm	Diameter laser module	25/28 mm		
Cable length1.5 mConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance22 kOhm22 kOhm	Module length	73.1 mm		
Connector typeLumberg SV50 IEC 61076-2-10Supply voltage $5 \pm 0.2$ Max. current consumption $0.25$ Working temperature $0 - 40^{\circ}$ Modulation inputsAnalogTTInput resistance $22 \text{ kOhm}$ $22 \text{ kOhm}$	Installation length	594.1 mm		
Supply voltage $5 \pm 0.2$ Max. current consumption $0.25$ Working temperature $0 - 40^{\circ}$ Modulation inputsAnalogTTInput resistance $22 \text{ kOhm}$ $22 \text{ kOhm}$	Cable length	1.5 m		
Max. current consumption0.25Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance22 kOhm22 kOhm	Connector type	Lumberg SV50 IEC 61076-2-106		
Working temperature0 - 40 °Modulation inputsAnalogTTInput resistance22 kOhm22 kOhm	Supply voltage	5 ± 0.2 V		
Modulation inputs Analog TT Input resistance 22 kOhm 22 kOhm	Max. current consumption	0.25 A		
Input resistance 22 kOhm 22 kOhm	Working temperature	0 - 40 °C		
<u>'</u>	Modulation inputs	Analog	TTL	
Max. modulation frequency 100 kHz 100 kHz	Input resistance	22 kOhm	22 kOhm	
100 Miz	Max. modulation frequency	100 kHz	100 kHz	
Modulation delay ON/OFF 1/0.5 $\mu$ s 2/1 $\mu$	Modulation delay ON/OFF	1/0.5 μs	2/1 μs	
Rise / Fall time $3/2 \mu s$ $3/2 \mu$	Rise / Fall time	3/2 μs	3/2 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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