

# 5LT-75-1+55CM-635-10-H10-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: 32 μm
Wavelength: 635 nm
Working distance: 74 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-75-1+55CM-635-10-H10-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 33 %. 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-75-1+55CM-635-10-H10-A8-CS-7

| Line type Laser Micro Line Wavelength 635 +10/-10 nr Laser output power 10 mV Laser safety class 3 Focussing range 74-74 mr Working distance 74 mr Line length 4.8 mr Line width 0.032 mr Rayleigh range 2.54 mr Edge intensity 33 9 Diameter laser module Module length 73.1 mr Installation length 73.1 mr Cable length 74.7 mr Cable length 75.1 mr Cable length 75.2 mr Supply voltage 75.2 c  Max. current consumption 70.25 Modulation inputs 75. mr Modulation frequency 76. Sup Nohm 77. Imput resistance 78. dr Module length 79. c Modulation frequency 79. kOhm 79. kO | Series                    |                                  | 5LT        |
|--|---------------------------|----------------------------------|------------|
| Line type Laser Micro Line  Wavelength 635 ±10/-10 nr  Laser output power 10 m/v  Laser safety class 3  Focussing range 74-74 mr  Working distance 74 mr  Line length 4.8 mr  Line width 0.032 mr  Rayleigh range 2.54 mr  Edge intensity 33 gr  Diameter laser module 25/28 mr  Module length 73.1 mr  Installation length 1.5 mr  Cable length 1.5 mr  Cable length 1.5 mr  Cunnector type 1.5 mr  Supply voltage 5 ± 0.2 mr  Max. current consumption 0.25 mr  Modulation inputs Analog TT  Input resistance 9 kOhm 9 kOhm  Max. modulation frequency 0.001 kHz 250 kH  | Order Code                | 5LT-75-1+55CM-635-10-H10-A8-CS-7 |            |
| Wavelength         635 + 10/-10 nr           Laser output power         10 mV           Laser safety class         3           Focussing range         74-74 mr           Working distance         74 mr           Line length         4.8 mr           Line width         0.032 mr           Rayleigh range         2.54 mr           Edge intensity         33 °           Diameter laser module         25/28 mr           Module length         73.1 mr           Installation length         1.5 r           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 kOhr           Max. modulation frequency         0.001 kHz         250 kH   | Line profile              | Gaussian Intensity Distribution  |            |
| Laser output power         10 mV           Laser safety class         3           Focussing range         74-74 mr           Working distance         74 mr           Line length         4.8 mr           Line width         0.032 mr           Rayleigh range         2.54 mr           Edge intensity         33 gr           Diameter laser module         25/28 mr           Module length         73.1 mr           Installation length         177.1 mr           Cable length         1.5 mr           Connector type         Lumberg SV70 IEC 61076-2-10           Supply voltage         5 ± 0.2           Max. current consumption         0.25 mr           Working temperature         0 - 40 °           Modulation inputs         Analog         TT           Input resistance         9 kOhm         9 kOhr           Max. modulation frequency         0.001 kHz         250 kHz  | Line type                 | Laser Micro Line                 |            |
| Laser safety class         3           Focussing range         74-74 mm           Working distance         74 mm           Line length         4.8 mm           Line width         0.032 mm           Rayleigh range         2.54 mm           Edge intensity         33 gm           Diameter laser module         25/28 mm           Module length         73.1 mm           Installation length         177.1 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                | 635 +10/-10 nm                   |            |
| Focussing range         74-74 mm           Working distance         74 mm           Line length         4.8 mm           Line width         0.032 mm           Rayleigh range         2.54 mm           Edge intensity         33 g           Diameter laser module         25/28 mm           Module length         73.1 mm           Installation length         1.5 mm           Connector type         Lumberg SV70 IEC 61076-2-10           Supply voltage         5 ± 0.2 mm           Max. current consumption         0.25 mm           Working temperature         0 - 40 °m           Modulation inputs         Analog         TT           Input resistance         9 kOhm         9 kOhm           Max. modulation frequency         0.001 kHz         250 kHz   | Laser output power        | 10 mW                            |            |
| Working distance74 mmLine length4.8 mmLine width0.032 mmRayleigh range2.54 mmEdge intensity33 gDiameter laser module25/28 mmModule length73.1 mmInstallation length177.1 mmCable length1.5 mmConnector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2 mmMax. current consumption0.25 mmWorking temperature0 - 40 mmModulation inputsAnalogInput resistance9 kOhmMax. modulation frequency0.001 kHz250 kH   | Laser safety class        | 3В                               |            |
| Line length         4.8 mm           Line width         0.032 mm           Rayleigh range         2.54 mm           Edge intensity         33 gm           Diameter laser module         25/28 mm           Module length         73.1 mm           Installation length         177.1 mm           Cable length         1.5 mm           Connector type         Lumberg SV70 IEC 61076-2-10           Supply voltage         5 ± 0.2 mm           Max. current consumption         0.25 mm           Working temperature         0 - 40 mm           Modulation inputs         Analog         TT           Input resistance         9 kOhm         9 kOhm           Max. modulation frequency         0.001 kHz         250 kHz  | Focussing range           | 74-74 mm                         |            |
| Line width         0.032 mr           Rayleigh range         2.54 mr           Edge intensity         33 g           Diameter laser module         25/28 mr           Module length         73.1 mr           Installation length         177.1 mr           Cable length         1.5 r           Connector type         Lumberg SV70 IEC 61076-2-10           Supply voltage         5 ± 0.2 r           Max. current consumption         0.25 r           Working temperature         0 - 40 °           Modulation inputs         Analog         TT           Input resistance         9 kOhm         9 kOhr           Max. modulation frequency         0.001 kHz         250 kHz  | orking distance 74 mm     |                                  |            |
| Rayleigh range 2.54 mm  Edge intensity 33 9  Diameter laser module 25/28 mm  Module length 73.1 mm  Installation length 1.5 m  Cable length 1.5 m  Connector type Lumberg SV70 IEC 61076-2-10  Supply voltage 5 ± 0.2 m  Max. current consumption 0.25 m  Working temperature 0 - 40 m  Modulation inputs Analog TT  Input resistance 9 kOhm 9 kOhm  Max. modulation frequency 0.001 kHz 250 kH  | Line length               | 4.8 mm                           |            |
| Edge intensity  Diameter laser module  25/28 mm  Module length  73.1 mm  Installation length  177.1 mm  Cable length  1.5 mm  Connector type  Lumberg SV70 IEC 61076-2-10  Supply voltage  5 ± 0.2 mm  Max. current consumption  0.25 mm  Modulation inputs  Analog  TI  Input resistance  9 kOhm  9 kOhm  Max. modulation frequency  0.001 kHz  25/28 mm  73.1 mm  74.1 mm | Line width                | 0.032 mm                         |            |
| Diameter laser module  25/28 mm  Module length  73.1 mm  Installation length  177.1 mm  Cable length  1.5 mm  Connector type  Lumberg SV70 IEC 61076-2-10  Supply voltage  5 ± 0.2  Max. current consumption  0.25 mm  Modulation inputs  Analog  TT  Input resistance  9 kOhm  9 kOhm  Max. modulation frequency  0.001 kHz  25/28 mm  73.1 mm  177.1 mm  | Rayleigh range            | 2.54 mm                          |            |
| Module length73.1 mmInstallation length177.1 mmCable length1.5 mmConnector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2 mmMax. current consumption0.25 mmWorking temperature0 - 40 mmModulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHz  | Edge intensity            | 33 %                             |            |
| Installation length  Cable length  1.5 r  Connector type  Lumberg SV70 IEC 61076-2-10  Supply voltage  5 ± 0.2 r  Max. current consumption  0.25 r  Working temperature  0 - 40 ° c  Modulation inputs  Analog  TT  Input resistance  9 kOhm  9 kOhr  Max. modulation frequency  0.001 kHz  250 kH   | Diameter laser module     | 25/28 mm                         |            |
| Cable length1.5 mConnector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2 mMax. current consumption0.25 mWorking temperature0 - 40 mModulation inputsAnalogTTInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kH  | Module length             | 73.1 mm                          |            |
| Connector typeLumberg SV70 IEC 61076-2-10Supply voltage5 ± 0.2Max. current consumption0.25 /rWorking temperature0 - 40 °cModulation inputsAnalogTTInput resistance9 kOhm9 kOhrMax. modulation frequency0.001 kHz250 kH   | Installation length       | 177.1 mm                         |            |
| Supply voltage $5 \pm 0.2\%$ Max. current consumption $0.25\%$ Working temperature $0 - 40\%$ Modulation inputsAnalogTTInput resistance $9  \text{kOhm}$ $9  \text{kOhm}$ Max. modulation frequency $0.001  \text{kHz}$ $250  \text{kHz}$  | Cable length              | 1.5 m                            |            |
| Max. current consumption0.25 /rWorking temperature0 - 40 °cModulation inputsAnalogTTInput resistance9 kOhm9 kOhrMax. modulation frequency0.001 kHz250 kHz  | Connector type            | Lumberg SV70 IEC 61076-2-106     |            |
| Working temperature0 - 40 °CModulation inputsAnalogTTInput resistance9 kOhm9 kOhrMax. modulation frequency0.001 kHz250 kH  | Supply voltage            | 5 ± 0.2 V                        |            |
| Modulation inputs Analog TT Input resistance 9 kOhm 9 kOhr Max. modulation frequency 0.001 kHz 250 kH  | Max. current consumption  | 0.25 A                           |            |
| Input resistance 9 kOhm 9 kOhr Max. modulation frequency 0.001 kHz 250 kH  | 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  $\underline{\text{https://sukhamburg.com/products/details/5LT-75-1}}$  from 4/26/2024

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