

5LTM-50-22+55CM-405-59-X15-A7.5-P-6

Semi-telecentric Macro Line Generator



FEATURES

Semi-telecentric laser line with constant line length of 2.4 mm and extended depth of focus.

- Line length: 2.4 mm
- Line width: 17 μm
- Wavelength: 405 nm
- Working distance: 39 mm
- Depth of focus: 1.13 mm

- Macro Line Generator for extended depth of focus



DESCRIPTION

The laser diode beam source type 5LTM-50-22+55CM-405-59-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 approx. Gaussian.

The laser has integrated electronics [type P](#) with micro-controller for control of the laser output power. The output power can be controlled using the [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

5LTM-50-22+55CM-405-59-X15-A7.5-P-6

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|---------------------------|-------------------------------------|------------|
| Series | 5LTM | |
| Order Code | 5LTM-50-22+55CM-405-59-X15-A7.5-P-6 | |
| Line profile | Gaussian Intensity Distribution | |
| Line type | Laser Macro Line | |
| Wavelength | 405 +5/-5 nm | |
| Laser output power | 59 mW | |
| Laser safety class | 3B | |
| Focussing range | 39-39 mm | |
| Working distance | 39 mm | |
| Line length | 2.4 mm | |
| Line width | 0.017 mm | |
| Depth of focus | 1.13 mm | |
| Edge intensity | 10 % | |
| Diameter laser module | 25/28 mm | |
| Module length | 78.5 mm | |
| Installation length | 147.5 mm | |
| Cable length | 1.5 m | |
| Connector type | Lumberg SV50 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 | 0.01 kHz | 250 kHz |
| Modulation delay ON/OFF | 3000/3000 µs | 0.5/0.2 µs |
| Rise / Fall time | 40000/40000 µs | 0.5/0.5 µs |

ACCESSORIES

| | |
|-----------------|---------------------------------------|
| 9D-12 | Screwdriver WS 1.2 |
| 13MK-25-36-10-F | Mounting Console with flat base plate |

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| 13MK-25-36-10-M | Mounting Console with base plate with dovetail profile |
| PS051003E | Power Supply 5 V |

RELATED PRODUCTS

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|-------------------------------------|--|
| LASER MODULES SERIES 5LT-2 | <ul style="list-style-type: none"> ▪ Semi-telecentric Micro Line ▪ Gaussian intensity distribution ▪ Constant line length ca. 2 mm |
| LASER MODULES SERIES LNC-5LTM-2 | <ul style="list-style-type: none"> ▪ Semi-telecentric Macro Line ▪ Gaussian intensity distribution ▪ Constant line length ca. 2 mm ▪ Extended depth of focus ▪ Low noise |
| LASER MODULES SERIES 13LTM | <ul style="list-style-type: none"> ▪ Semi-telecentric Macro Line ▪ Uniform intensity distribution ▪ Constant line length 15 mm ▪ Extended depth of focus |
| LASER MODULES SERIES 5LTM-1+25CM | <ul style="list-style-type: none"> ▪ Compact semi-telecentric Macro Line ▪ Gaussian intensity distribution ▪ Constant line length ca. 4.8 mm ▪ Extended depth of focus |
| LASER MODULES SERIES 5LTM-1 | <ul style="list-style-type: none"> ▪ Semi-telecentric Macro Line ▪ Gaussian intensity distribution ▪ Constant line length ca. 4.8 mm ▪ Extended depth of focus |
| LASER MODULES SERIES 5LTM-2+25CM | <ul style="list-style-type: none"> ▪ Compact semi-telecentric Macro Line ▪ Gaussian intensity distribution ▪ Constant line length ca. 2 mm ▪ Extended depth of focus |

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CONTACT

For more information please contact:

Schäfter + Kirchhoff GmbH

Kieler Str. 212

22525 Hamburg

Germany

Tel: +49 40 85 39 97-0

Fax: +49 40 85 39 97-79

info@sukhamburg.de

www.sukhamburg.com

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