13LR40-S500+55CR-635-10-H10-T12-C-6

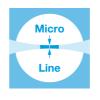
Laser Micro Line Generator with a fan angle



FEATURES

Laser line with a fan angle and approx. uniform intensity distribution.

- Line length: 357 mm
- Line width: 142 μm
- Wavelength: 635 nm
- Working distance: 492 mm
- Micro Line Generator for small laser line widths and high power density in the focal plane



DESCRIPTION

The laser diode beam source type 13LR40-S500+55CR-635-10-H10-T12-C-6 has a fan angle of 40° with a constant line width and approx. uniform intensity distribution along the laser line.

The fine-structure is a <u>chain of equidistant dots</u> with a spacing of approx. the line width. 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 C</u> for control of the laser output power. The output power can be controlled using the <u>modulation input ports (TTL and analog)</u> or manually using the potentiometer.

The working distance can be adjusted by adjusting the focus setting. Please note that beam parameters like line length and line width increase proportionally to the working distance.



A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

TECHNICAL DATA

13LR40-S500+55CR-635-10-H10-T12-C-6

| Series | | 13LR |
|---------------------------|-------------------------------------|---------|
| Order Code | 13LR40-S500+55CR-635-10-H10-T12-C-6 | |
| Line profile | Constant Intensity Distribution | |
| Line type | Laser Micro Line | |
| Wavelength | 635 +10/-10 nm | |
| Laser output power | 10 mW | |
| Laser safety class | s 3B | |
| Fan angle α | 40 deg | |
| Focussing range | g range 415-815 mm | |
| Working distance 492 mm | | |
| Line length | e length 357 mm | |
| Line width | 0.142 mm | |
| Rayleigh range | 50.1 mm | |
| Edge intensity | 80 % | |
| Diameter laser module | 25/28 mm | |
| Module length | 62.4 mm | |
| Installation length | 554.4 mm | |
| Cable length | 1.5 m | |
| Connector type | Lumberg SV50 IEC 61076-2-106 | |
| Supply voltage | 5 ± 0.2 V | |
| Max. current consumption | 0.25 A | |
| Working temperature | 0 - 40 °C | |
| Modulation inputs | Analog | TTL |
| Input resistance | 22 kOhm | 22 kOhm |
| Max. modulation frequency | 100 kHz | 100 kHz |
| Modulation delay ON/OFF | 1/0.5 µs | 2/1 μs |
| Rise / Fall time | 3/2 µs | 3/2 µs |



ACCESSORIES

| 50HD-15 | Hex key WS 1.5 |
|-----------------|--|
| 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 SERIES 13LRM | Macro Line Generator, fan angle Uniform intensity distribution Extended depth of focus |
|----------------------------------|--|
| LASER MODULES SERIES 13LN | Micro Line, small fan angle Uniform intensity distribution Thin lines |
| LASER MODULES SERIES 5LM+25CM | Compact Micro Line, small fan angle Gaussian intensity distribution |
| LASER MODULES SERIES 5LP+25CM | Compact Micro Line, large fan angle Gaussian intensity distribution |
| LASER MODULES SERIES 5LM | Micro Line, small fan angle Gaussian intensity distribution |
| LASER MODULES SERIES 5LP | Micro Line, large fan angle Gaussian intensity distribution |



DATA SHEET

This is a printout of the page <u>https://sukhamburg.com/products/details/13LR40-S500_55CR-635-10-H10-T12-C-6</u> from 5/7/2024

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