

## 13MM-S500-4+55CM-639-11-H18-T12-CS-7

Laser Macro Focus Generator with approx. circular beam profile



### FEATURES

Laser spot with approx. circular beam profile and extended depth of focus.

- Spot diameter: 0.164 x 0.131 mm
- Wavelength: 639 nm
- Working distance: 483 mm
- Depth of focus: 44.5 mm

- Macro Focus Generator for extended depth of focus
- With RS232 interface



## DESCRIPTION

The laser diode beam source type 13MM-S500-4+55CM-639-11-H18-T12-CS-7 produces a circular laser spot with extended depth of focus. The beam profile is approx. Gaussian. More precisely it has an elliptical intensity distribution clipped by a circular aperture.

The laser has integrated electronics [type CS](#) for control of the laser output power and serial interface (RS232). The output power can be controlled using the [modulation input ports \(TTL and analog\)](#) or manually using the potentiometer.

The working distance can be adjusted by adjusting the focus setting. Please note that the spot diameter increases proportionally to the working distance. A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

## TECHNICAL DATA

13MM-S500-4+55CM-639-11-H18-T12-CS-7

|                           |                                      |            |
|---------------------------|--------------------------------------|------------|
| Series                    | 13MM                                 |            |
| Order Code                | 13MM-S500-4+55CM-639-11-H18-T12-CS-7 |            |
| Line profile              | Gaussian Intensity Distribution      |            |
| Wavelength                | 639 +10/-10 nm                       |            |
| Laser output power        | 11 mW                                |            |
| Laser safety class        | 3B                                   |            |
| Focussing range           | 410-815 mm                           |            |
| Working distance          | 483 mm                               |            |
| Spot height               | 0.131 mm                             |            |
| Spot width                | 0.164 mm                             |            |
| Depth of focus            | 44.5 mm                              |            |
| Diameter laser module     | 25/28 mm                             |            |
| Module length             | 84.3 mm                              |            |
| Installation length       | 597.3 mm                             |            |
| Cable length              | 1.5 m                                |            |
| Connector type            | Lumberg SV70 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          | 9 kOhm                               | 9 kOhm     |
| 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 µs |
| Interface                 | RS232                                |            |

## 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  |
| PS051007E       | Power Supply 5 V for laser modules with RS232 interface |

## RELATED PRODUCTS

|                                  |   |
|----------------------------------|---|
| LASER MODULES<br>SERIES 13M      | <ul style="list-style-type: none"><li>▪ Micro Focus Generator</li><li>▪ Elliptical Gaussian beam profile</li></ul>  |
| LASER MODULES<br>SERIES LNC-13MM | <ul style="list-style-type: none"><li>▪ Macro Focus Generator</li><li>▪ <b>Circular</b> beam profile</li><li>▪ Extended depth of focus</li><li>▪ Low noise</li></ul>      |
| LASER MODULES<br>SERIES 13MMC    | <ul style="list-style-type: none"><li>▪ Laser Macro Focus Generator</li><li>▪ <b>Rotationally symmetric</b> beam profile</li><li>▪ Extended depth of focus</li></ul>      |
| LASER MODULES<br>SERIES 5MM      | <ul style="list-style-type: none"><li>▪ <b>Compact</b> Laser Macro Focus Generator</li><li>▪ <b>Circular</b> beam profile and</li><li>▪ Extended depth of focus</li></ul> |

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