# 13M-M100+55CM-405-91-X15-T15-PS-7

Laser Micro Focus Generator with elliptical Gaussian beam profile

## FEATURES

Laser spot with elliptical Gaussian beam profile.

- Spot diameter: 0.006 x 0.013 mm
- Wavelength: 405 nm
- Working distance: 93 mm

- Micro Focus Generator for small spot widths and high power density in the focal plane
- With RS232 interface


## DESCRIPTION

The laser diode beam source type 13M-M100+55CM-405-91-X15-T15-PS-7 produces an elliptical laser spot with elliptical Gaussian intensity distribution.

The laser has integrated electronics type PS with micro-controller 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

13M-M100+55CM-405-91-X15-T15-PS-7

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| **Series** | 13M |

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|---|---|---|
| **Order Code** | 13M-M100+55CM-405-91-X15-T15-PS-7 | |
| **Line profile** | Gaussian Intensity Distribution | |
| **Wavelength** | 405 +5/-5 nm | |
| **Laser output power** | 91 mW | |
| **Laser safety class** | 3B | |
| **Focussing range** | 80-110 mm | |
| **Working distance** | 93 mm | |
| **Spot height** | 0.013 mm | |
| **Spot width** | 0.006 mm | |
| **Rayleigh range** | 0.141 mm | |
| **Diameter laser module** | 25/28 mm | |
| **Module length** | 75.9 mm | |
| **Installation length** | 198.9 mm | |
| **Cable length** | 1.5 m | |
| **Connector type** | Lumberg SV70 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** | 0.001 kHz | 250 kHz |
| **Modulation delay ON/OFF** | 3000/3000 µs | 0.6/0.2 µs |
| **Rise / Fall time** | 200000/200000 µs | 0.2/0.2 µs |
| **Interface** | RS232 | |

## ACCESSORIES

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|---|---|
| **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 |

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

## RELATED PRODUCTS

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|---|---|
| **LASER MODULES SERIES 13MM** | ▪ Macro Focus Generator<br>▪ **Circular** beam profile<br>▪ Extended depth of focus |
| **LASER MODULES SERIES 13MC** | ▪ Micro Focus Generator<br>▪ **Rotationally symmetric**, Gaussian beam profile |
| **LASER MODULES SERIES LNC-13M** | ▪ Micro Focus Generator<br>▪ Elliptical Gaussian beam profile<br>▪ Low noise |
| **LASER MODULES SERIES 5MC** | ▪ **Compact** Laser Micro Focus Generator<br>▪ **Rotationally symmetric**, Gaussian beam profile |
| **LASER MODULES SERIES 5M** | ▪ **Compact** Laser Micro Focus Generator<br>▪ Elliptical Gaussian beam profile |

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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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