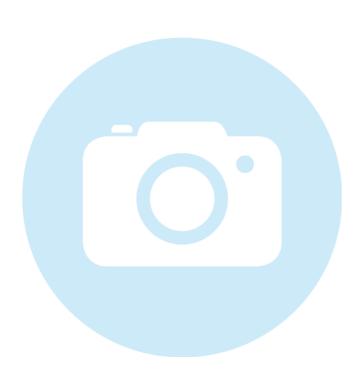
### 5LMM8-S150-1+55CM-488-33-O09-A7.5-P-6

Macro Line Generator with a fan angle



# FEATURES Laser line with a fan angle, Gaussian intensity distribution and extended depth of focus. Line length: 21.8 mm Line width: 109 μm Wavelength: 488 nm Working distance: 138 mm Depth of focus: 48.9 mm

 Macro Line Generator for extended depth of focus



# DESCRIPTION

The laser diode beam source type 5LMM8-S150-1+55CM-488-33-O09-A7.5-P-6 has a fan angle of 8° and an extended depth of focus.

The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 19 %. The line width is constant along the laser line. Across the laser line the intensity distribution is approx. Gaussian.

The laser has integrated electronics <u>type P</u> with micro-controller 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**

5LMM8-S150-1+55CM-488-33-O09-A7.5-P-6

| Series                    |                                       | 5LMM       |
|---------------------------|---------------------------------------|------------|
| Order Code                | 5LMM8-S150-1+55CM-488-33-O09-A7.5-P-6 |            |
| Line profile              | Gaussian Intensity Distribution       |            |
| Line type                 | Laser Macro Line                      |            |
| Wavelength                | 488 +2/-2 nm                          |            |
| Laser output power        | 33 mW                                 |            |
| Laser safety class        |                                       | 3В         |
| Fan angle α               | 8 deg                                 |            |
| Focussing range           |                                       | 115-250 mm |
| Working distance          |                                       | 138 mm     |
| Line length               | 21.8 mm                               |            |
| Line width                | 0.109 mm                              |            |
| Depth of focus            | 48.9 mm                               |            |
| Edge intensity            | 19 %                                  |            |
| Diameter laser module     | 25/28 mm                              |            |
| Module length             | 78.5 mm                               |            |
| Installation length       | 246.5 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

50HD-15

Hex key WS 1.5



# **DATA SHEET**

| 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<br>SERIES 5LM       | <ul> <li>Micro Line, small fan angle</li> <li>Gaussian intensity distribution</li> </ul>   |
|-----------------------------------|--|
| LASER MODULES<br>SERIES LNC-5LMM  | <ul> <li>Macro Line, small fan angle</li> <li>Gaussian intensity distribution</li> <li>Extended depth of focus</li> <li>Low Noise</li> </ul> |
| LASER MODULES<br>SERIES 13LRM     | <ul> <li>Macro Line Generator, fan angle</li> <li>Uniform intensity distribution</li> <li>Extended depth of focus</li> </ul>                 |
| LASER MODULES<br>SERIES 13LNM     | <ul> <li>Micro Line Generator, small fan angle</li> <li>Uniform intensity distribution</li> <li>Extended depth of focus</li> </ul>           |
| LASER MODULES<br>SERIES 5LPM+25CM | <ul> <li>Compact Macro Line, large fan angle</li> <li>Gaussian intensity distribution</li> <li>Extended depth of focus</li> </ul>            |
| LASER MODULES<br>SERIES 5LMM+25CM | <ul> <li>Compact Micro Line, small fan angle</li> <li>Gaussian intensity distribution</li> <li>Extended depth of focus</li> </ul>            |
| LASER MODULES<br>SERIES 5LPM      | <ul> <li>Macro Line, large fan angle</li> <li>Gaussian intensity distribution</li> <li>Extended depth of focus</li> </ul>                    |

Schäfter+Kirchhoff

# **DATA SHEET**

This is a printout of the page <u>https://sukhamburg.com/products/details/5LMM8-S150-1\_55CM-488-33-O09-A7\_5-P-6</u> from 4/26/2024

# 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

# **LEGAL NOTICE**

#### Copyright 2020 Schäfter+Kirchhoff GmbH. All rights reserved.

Text, image, graphic, sound, video and animation files and their arrangement on Schäfter+Kirchhoff GmbH webpages are protected by copyright and other protective laws. The content may not be copied for commercial use or reproduced, modified or used on other websites. [more]

