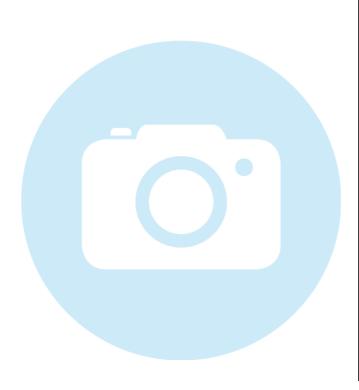
### 5LP40-S50+25CM-405-13-Y07-A7.5-B-4

Compact Micro Line Generator with a large fan angle



#### FEATURES

Compact laser line with a large fan angle and Gaussian intensity distribution.

- Line length: 28 mm
- Line width: 14 µm
- Wavelength: 405 nm
- Working distance: 46 mm
- Micro Line Generator for small laser line widths and high power density in the focal plane



# DESCRIPTION

The laser diode beam source type 5LP40-S50+25CM-405-13-Y07-A7.5-B-4 has a fan angle of  $40^{\circ}$ .

The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 9 %. 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 B</u> for control of the laser output power. The output power can be controlled using the <u>modulation input port (TTL)</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.

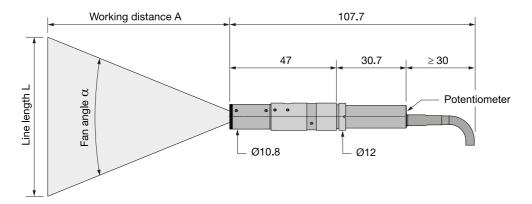


# **TECHNICAL DATA**

5LP40-S50+25CM-405-13-Y07-A7.5-B-4

| Series                    | 5LP                                |
|---------------------------|------------------------------------|
| Order Code                | 5LP40-S50+25CM-405-13-Y07-A7.5-B-4 |
| Line profile              | Gaussian Intensity Distribution    |
| Line type                 | Laser Micro Line                   |
| Wavelength                | 405 +5/-5 nm                       |
| Laser output power        | 13 mW                              |
| Laser safety class        | 3В                                 |
| Fan angle α               | 40 deg                             |
| Focussing range           | 35-70 mm                           |
| Working distance          | 46 mm                              |
| Line length               | 28 mm                              |
| Line width                | 0.014 mm                           |
| Rayleigh range            | 0.726 mm                           |
| Edge intensity            | 9 %                                |
| Diameter laser module     | 12 mm                              |
| Module length             | 77.7 mm                            |
| Installation length       | 153.7 mm                           |
| Cable length              | 1.5 m                              |
| Connector type            | Lumberg SV40 IEC 61076-2-106       |
| Supply voltage            | 12 ± 0.5 V                         |
| Max. current consumption  | 0.16 A                             |
| Working temperature       | 0 - 40 °C                          |
| Modulation inputs         | TTL                                |
| Input resistance          | 110 kOhm                           |
| Max. modulation frequency | 0.2 kHz                            |
| Modulation delay ON/OFF   | 500/500 μs                         |
| Rise / Fall time          | 10/20 μs                           |

Dimensions (for a complete dimensional drawing please refer to the downloads section)



## **DOWNLOADS**



921120000622.pdf

# **ACCESSORIES**

| 60EX-4          | Eccentric key with a stroke of $\pm$ 0.5 mm.                              |
|-----------------|---|
| 60EX-4-L        | Alternative eccentric key with long handle with a stroke of $\pm$ 0.5 mm. |
| 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                    |
| PS120516E       | Power Supply 12 V   |

### **RELATED PRODUCTS**

| 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 LNC-5LP   | <ul> <li>Micro Line, large fan angle</li> <li>Gaussian intensity distribution</li> </ul>  |

- Gaussian intensity distribution
- Low noise



# **DATA SHEET**

| LASER MODULES<br>SERIES 13LR     | <ul><li>Micro Line Generator, fan angle</li><li>Uniform intensity distribution</li></ul>                    |
|----------------------------------|---|
| LASER MODULES<br>SERIES 13LN     | <ul> <li>Micro Line, small fan angle</li> <li>Uniform intensity distribution</li> <li>Thin lines</li> </ul> |
| LASER MODULES<br>SERIES 5LM+25CM | <ul> <li>Compact Micro Line, small fan angle</li> <li>Gaussian intensity distribution</li> </ul>            |
| LASER MODULES<br>SERIES 5LP      | <ul> <li>Micro Line, large fan angle</li> <li>Gaussian intensity distribution</li> </ul>                    |
| LASER MODULES<br>SERIES 5LM      | <ul> <li>Micro Line, small fan angle</li> <li>Gaussian intensity distribution</li> </ul>                    |

This is a printout of the page <u>https://sukhamburg.com/products/details/5LP40-S50\_25CM-405-13-Y07-A7\_5-B-4</u> from 4/19/2024

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