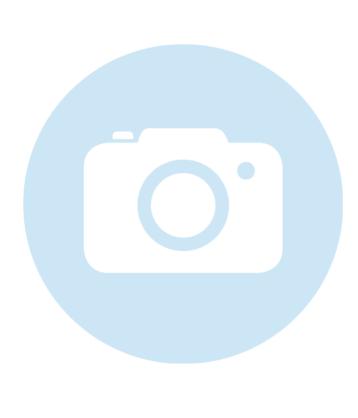
LNC-5LPM80-S88-1+56CM-640-9-H22-A8-H-6

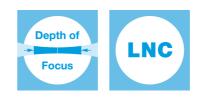
Low Noise Macro Line Generator with a large fan angle



FEATURES

Laser line with a large fan angle, Gaussian intensity distribution and extended depth of focus.

- Line length: 140 mm
- Line width: 82 μm
- Wavelength: 640 nm
- Working distance: 77 mm
- Depth of focus: 22.1 mm
- Low noise laser module (0.1 % RMS, @<1 MHz)
- Macro Line Generator for extended depth of focus
- Low noise, low coherence laser module (typ. < 0.15 % of P₀ (RMS, Bandwidth < 1 MHz))



DESCRIPTION

The laser diode beam source type LNC-5LPM80-S88-1+56CM-640-9-H22-A8-H-6 has a fan angle of 84° and an extended depth of focus.

The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 13 %. 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 H</u> for control of the laser output power. It is a low noise laser source (0.1 % RMS,@<1 MHz) with reduced coherence length and operates mode-hopping free. Due to the reduced coherence length the speckle contrast might be lowered. Please note that this effect is smaller for smaller lines and spots. 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

LNC-5LPM80-S88-1+56CM-640-9-H22-A8-H-6

| Series | | 5LPM | |
|--------------------------|---------------------------------|------------------------------|--|
| Order Code | LNC-5LPM80-S88-1+56CM-64 | 0-9-H22-A8-H-6 | |
| Line profile | Gaussian Intensity Distribution | | |
| Line type | Laser Macro Line | | |
| Wavelength | | 640 +5/-5 nm | |
| Laser output power | | 9 mW | |
| Laser safety class | | 3B | |
| Fan angle α | | 84 deg | |
| Focussing range | | 65-120 mm | |
| Working distance | | 77 mm | |
| Line length | | 140 mm | |
| Line width | | 0.082 mm | |
| Depth of focus | | 22.1 mm | |
| Edge intensity | | 13 % | |
| Diameter laser module | | 25/28 mm | |
| Module length | | 101 mm | |
| Installation length | | 208 mm | |
| Cable length | 1.5 m | | |
| Connector type | Lumberg SV50 I | 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 | |



DATA SHEET

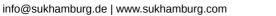
| Max. modulation frequency | 100 kHz | 100 kHz |
|---------------------------|----------|------------|
| Modulation delay ON/OFF | 2/0.3 μs | 1.5/0.1 μs |
| Rise / Fall time | 1/1 µs | 1/1 µs |
| Noise (< 1 MHZ RMS) | | 0.1% |

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 |
| 13МК-25-36-10-М | Mounting Console with base plate with dovetail profile |
| PS051003E | Power Supply 5 V |

RELATED PRODUCTS

| LASER MODULES SERIES LNC-5LPM | Macro Line, large fan angle Gaussian intensity distribution Extended depth of focus Low noise |
|-----------------------------------|---|
| LASER MODULES SERIES 5LPM | Macro Line, large fan angle Gaussian intensity distribution Extended depth of focus |
| LASER MODULES SERIES LNC-13LNM | Macro Line Generator, small fan angle Uniform intensity distribution Extended depth of focus Low noise |
| LASER MODULES SERIES LNC-5LMM | Macro Line, small fan angle Gaussian intensity distribution Extended depth of focus Low Noise |





DATA SHEET

This is a printout of the page <u>https://sukhamburg.com/products/details/LNC-5LPM80-S88-1_56CM-640-9-H22-A8-H-6</u> from 5/4/2024

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]

