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Technical Data	SL 03 mini
Wavelength	632.8 nm
Output power	> 0.7 mW (typ. 0.8 mW)
Amplitude noise (30 Hz - 10 MHz)	< 0.4 % (< 0.2 %)
Beam diameter (TEM00)	0.49 mm
Beam divergence (TEM00)	< 2.0 mrad
Beam polarization linearly polarized longitudinal mode	
Warm-up time to achieve stable operation	< 15 min
Relative frequency stability	1 min / 1h / 24h ca. ± 1 MHz / ± 1 MHz / ± 2 MHz
Operating temperature range	+15 ... +30 °C
Storage temperature range	- 40 ... + 50 °C
Typical life time	25.000 h
Dimensions of laser head (Ø x L):	Ø 32 mm x 180 mm
Power consumption in stabilized condition, dependent on Power supply	< 20 W
Power supply	
Line voltage / frequency	AC 100 ... 240 V / 47 ... 63 Hz
Dimensions electronic unit [W x H x D]	172 mm x 60 mm x 230 mm
OEM Power supply	
Line voltage / frequency	12 – 13.5 V @ 2.5 A
Dimensions OEM electronic unit [W x H x D]	89 mm x 94 mm x 28 mm
Length of cable between laser head and electronic unit m 1 (optionally up to 2)	
Mass of laser head incl. cable / electronic unit AC 100...240V/ electronic unit 12 – 13.5V	250 / 1600 / 200 g
Laser safety class according to EN 60825-1	2M

03/2022 · Subject to change.



SL Series

Product information

Stabilized HeNe lasers as measuring standard for laser-optical measuring technology and as frequency standard

Frequency and amplitude stabilized lasers

SL SERIES

Our stabilized HeNe lasers with a wavelength of 632.8 nm are used as a highstable measurement standard and as a frequency standard. The stabilization technique provides high frequency and amplitude stabilities, low optical feedback, and short warm-up time.

Optical assemblies and fiber-optic coupling devices can be coupled to the lasers via a screw-in thread.

Options

- Frequency connection to a traceable frequency standard with issue of a factory calibration certificate
- Marking indicating the beam's plane of polarization
- Fiber coupler installation and alignment
- Extended or adjustable operating temperature range
- Installation and alignment of Faraday isolator in order to eliminate back reflections

Ideal for

- Light sources in laseroptical measuring technology
- Science/research
- Frequency standard
- OEM applications

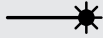


Stabilized HeNe Laser model SL 02

- compact design with integrated stabilization electronics and small plug-in power supply
- available with one or two polarized longitudinal modes
- fibre coupling on request



2.5 MHz / 1 h



≥ 1.2 mW (1 mode)
≥ 2.4 mW (2 modes)



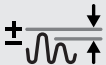
50 mm



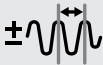
410 mm

Stabilized HeNe Laser model SL 04

- amplitude or frequency stabilization as operating modes
- fibre coupling on request
- external supply unit enables max. variation of technical specifications



< 0.3%



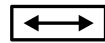
1 MHz / 1 h



≥ 1.2 mW



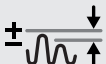
45 mm



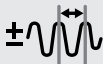
314 mm

Stabilized HeNe Laser model SL 03 mini

- frequency stabilized
- compact stabilization electronics and power supply
- fibre coupling on request
- ideal for OEM applications as a built-in system



< 0.2%



1 MHz / 1 h



≥ 0.7 mW



32 mm



180 mm

We develop and manufacture laser interferometric measurement technology and precision measuring instruments for calibration and nano metrology.



Length Measurement Systems



Length and Angle
Measurement Systems



Calibration Systems



Vibration
Measurement Systems



Gauging Probe



Nanopositioning



Measurement and
Calibration systems



Stabilized HeNe Lasers



Climate Measuring Station



Measurement Software



For customer-specific versions, OEM applications or integration in special measurement stations, please contact us.

We will be happy to personally assist you in finding solutions for your measuring tasks.

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