

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.

SIOS Meßtechnik GmbH
Am Vogelherd 46
98693 Ilmenau / Germany

phone +49 (0) 3677 64 47-0
e-mail contact@sios.de

www.sios-precision.com

