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Laser He-Ne, 632 nm, 1 mW, linear polarised, incl. power supply unit and holder

08182-00
08182-63

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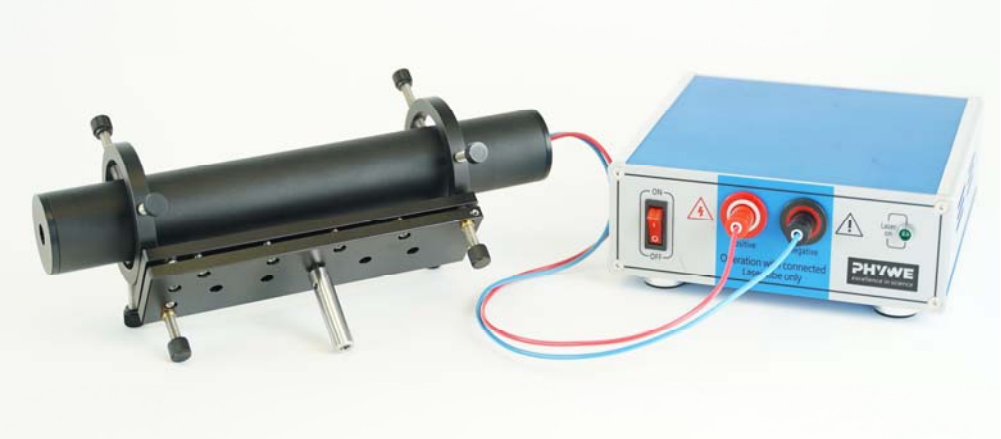

Fig. 1: Laser He-Ne, 632 nm, 1 mW, linear polarized 08182-00, incl. power supply unit and holder

Operating instructions

CE The unit complies with the corresponding EC guidelines.

TABLE OF CONTENTS

1 SAEFTY PRECAUTIONS

Laser 08182-200

Warning of Laser beams

Laser radiation
Do not expose to the beam
Laser Class 2
(according to DIN EN 60825-1)

- Never look into the laser beam while the laser is switched on. Permanent eye damage may occur.
- Never direct the beam towards the face or eyes of persons, regardless of their distance.
- When using the laser, make sure that a functioning visual protection against radiation escaping from the test setup is guaranteed.
- Do not start up this instrument in case of visible signs of damage to it.
- Only use the instrument for the purpose for which it was designed.
- Operate the laser only with the supplied operating device.
- Never look directly into the laser beam, not even if it is expanded in its diameter, e.g. by upstream lenses. The optical phenomena to be examined should always be observed on a projection or transparent screen where the irradiance of the observing eye is reduced to a safe level by diffuse reflection or scattering.

All optical devices in the beam path shall be mounted in such a way that an unintentional change of their position is not possible; no persons shall be endangered, e.g. by reflection of the beam, which can also occur on objects not belonging to the test setup.

Power supply unit 08182-93

- Only use the instrument for the purpose for which it was
- designed. And only in connection with the He-Ne laser.
- Check that your mains supply voltage corresponds to that given on the type plate fixed to the instrument.
- Install the instrument so that the on/off switch and the mains connecting plug are easily accessible.
- Do not cover the ventilation slits.
- Take care that no liquids or objects enter in through the ventilation slots.
- Do not start up this instrument should there be visible signs of damage to it or to the line cord.
- Only use the instrument in dry rooms in which there is no risk of explosion.

2 PURPOSE AND CHARACTERISTICS

This diode-pumped solid-state laser offers a compact monochromatic light source that is particularly suitable for experiments on interference and diffraction.

The laser meets the DIN safety requirements of laser protection class 2 and is therefore approved for schools.

3 DESCRIPTION

The lightproof anodized aluminum housing used prevents the escape of uncontrolled radiation. The connection to the mains is made via the control gear included in the scope of delivery.

To place the laser in a tripod base or the rider of an optical bench, the supplied holder is used.

4 HANDLING

Before starting the laser, hold it in a tripod foot or in the rider of an optical bench. The laser is to be set up in such a way that the laser beam cannot hit anybody's eyes (see point 1, danger notes). The laser may only be connected to a mains socket using the supplied operating device.

5 OPERATING INSTRUCTIONS

This high-quality instrument fulfils all of the technical requirements that are compiled in current EC guidelines. The characteristics of this product qualify it for the CE mark.

This instrument is only to be put into operation under specialist supervision in a controlled electromagnetic environment in research, educational and training facilities (schools, universities, institutes and laboratories).

This means that in such an environment, no mobile phones etc. are to be used in the immediate vicinity. The individual connecting leads are each not to be longer than 2 m.

The instrument can be so influenced by electrostatic charges and other electromagnetic phenomena that it no longer functions within the given technical specifications. The following measures reduce or do away with disturbances:

Avoid fitted carpets; ensure potential equalization; carry out experiments on a conductive, earthed surface, use screened cables, do not operate high-frequency emitters (radios, mobile phones) in the immediate vicinity.

6 TECHNICAL DATA

(typical for 25°C)

Operating temperature range:	10… 40

Laser

Laser type:	He-Ne
Wavelength:	623.8 nm linear polarized
Power:	1 mW
Laser protection class:	Class 2
Beam diameter (at output):	0.5 mm
Beam divergence:	< 2 mrad
Operating life	ca. 18000 h
Dimensions	310 x 100 x 100 (mm)
Weight	0.3 kg

Power supply unit

Input voltage range:	230 V~
Mains frequency	50 Hz
Input power	50 VA
Sicherung	F2A
Output	
Ignition voltage	1600V
Output voltage	12 V
Output current	4.8 mA
Max. Output power	2.5 mW
Dimensions	200 x 190 x 80 (mm)
Weight	0.5 kg

7 WASTE DISPOSAL

The packaging consists predominately of environmentally compatible materials that can be passed on for disposal by the local recycling service.

Should you no longer require this product, do not dispose of it with the household refuse.

Please return it to the address below for proper waste disposal.

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