



# laser, magnetic

Laser experiments:

**DL100-9S Experiment manual, "Laser light", book b/w**  
**DL100-9C Experiment manual, "Laser light", CD-ROM**



## Vibrations

- OPL 001 Vibration of a flat spring
- OPL 002 Superimposition of vibrations
- OPL 003 Lissajous figures

## Geometric optics

- OPL 004 Model of an optic fibre
- OPL 005 Optic fibre cable

## Wave optics

- OPL 006 Diffraction by water drops
- OPL 007 Black circles - estimating the size of spores
- OPL 008 Pulling apart a point of light
- OPL 009 Diffraction through a slit
- OPL 010 Diffraction through a diaphragm
- OPL 011 Diffraction through various objects
- OPL 012 Diffraction through hair
- OPL 013 Babinet's principle
- OPL 013 Diffraction through a double slit
- OPL 015 Diffraction through a grid
- OPL 016 Diffraction through woven material
- OPL 017 Measuring the wave length of laser light
- OPL 018 Diffraction through a cross-grating - determining the grid constant
- OPL 019 Interference in a bi-prism
- OPL 020 Interference in Fresnel's mirror
- OPL 021 Interference and Newton's rings
- OPL 022 Measuring the capacity of a CD-ROM
- OPL 023 Laser light may be polarized

## Information transmission

- OPL 024 Faraday effect
- OPL 025 Sound transmission using the Faraday effect
- OPL 026 Modulation of laser light
- OPL 027 Modulation of laser light - optical fibre cable
- OPL 028 Experimental model of satellite transmission

## Michelson interferometer

- OPL 029 Interferometer
- OPL 030 Measuring the wavelength of laser light
- OPL 031 Optical Doppler effect
- OPL 032 Optical density in air - changed by heat
- OPL 033 Optical density in air - carbon dioxide



## DL100-3L Laser 0.2/1.0 mW, linearly polarized, modulatable, magnetic

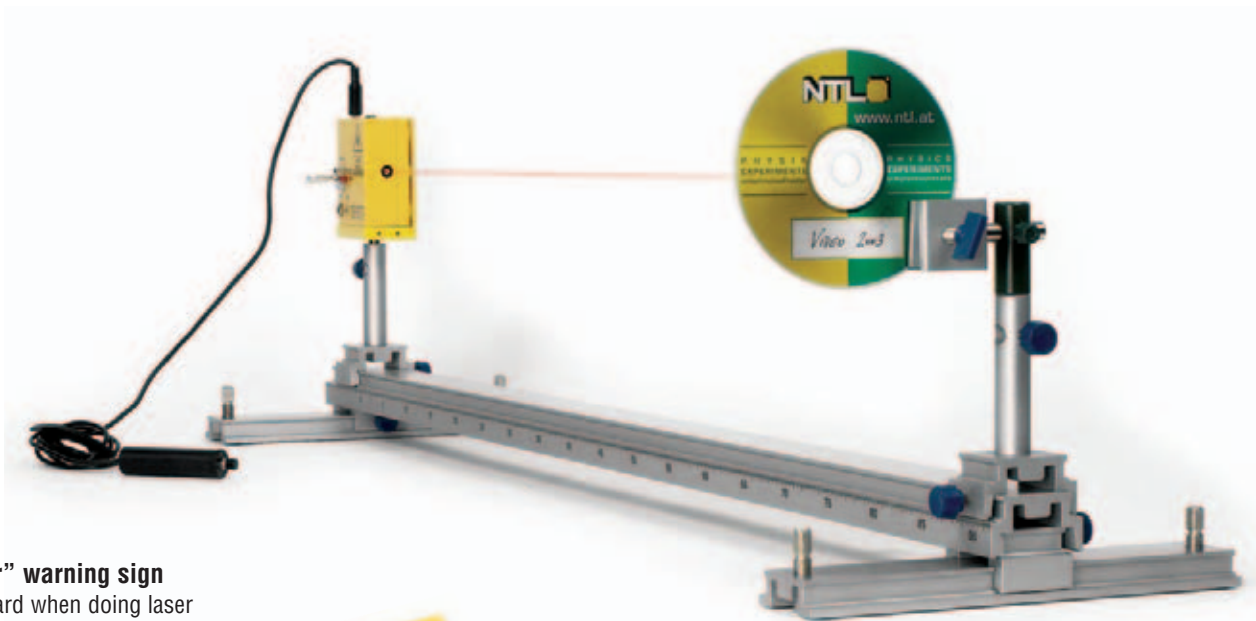
Class 2 educational laser for use as a high-intensity light source, especially in experiments on interference, diffraction and holography; laser diode, with collimator optics, mounted in a "compact" magnetic module  
**Wavelength: 635 nm; optical power output: 0.2 mW, continuous maximum power output of 1.0 mW generated only while pressing the push button** (or using remote control switch DE722-2W); beam divergence: <math><0.5\text{ mrad}</math>; **polarization: linear; modulation input by means of phone jack**; operated using a built-in key switch; LED indicates operating mode; four strong neodymium magnets are built into the back plate for mounting the device on a metal panel; bracket on support DL100-1H is required for mounting it on a support stand  
 Operating voltage: 9-V battery (supplied) or 6-12 V DC supplied through the 5.5 mm hollow jack (e.g. by mains transformer P3130-1P)  
 Case dimensions: 84x84x39 mm

## DL100-1H Bracket on support

For vertically mounting "compact" magnetic modules on support stand assemblies; right-angle metal panel, yellow powder-coated  
 Contact surface: 84x84 mm; support: D=10 mm, L=80 mm

## DE722-2W Remote control for laser and stopwatch "inno"

Push button switch in plastic case; connecting cord (L = approx. 150 cm.) with phone plug  
 Dimensions: 21x80 mm



### DL100-1M "Laser" warning sign

For indicating a hazard when doing laser experiments; yellow plastic panel labelled in black; held by plate clamp on support DS404-1M

Dimensions: 230x150 mm



### DS404-1M Plate clamp on support

Special aluminium profile on support; with clamping jaws and wing screw for clamping in plates with a maximum thickness of 10 mm

Support: D=10 mm, L=40 mm

Experiment: Measuring the capacity of a CD-ROM



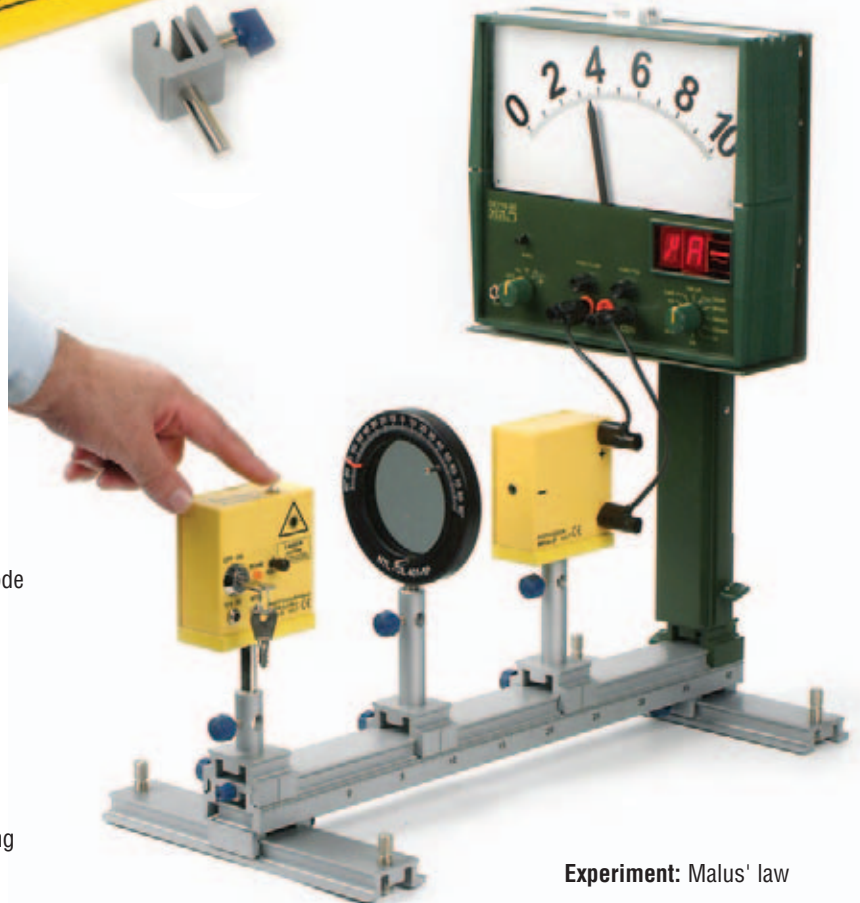
### MB220-2F Photodiode, "compact", magnetic

For performing light-sensitive measurement; silicon photodiode with integrated optical

filter mounted in a "compact" magnetic module; precise logarithmic relationship

between element current and illumination intensity in the 102 ... 105 lux range; light sensitivity >5.5 nA/lux; spectral range: 350 ... 775 nm; surface area sensitive to light rays: 2.71x2.71 mm (7.34 mm<sup>2</sup>);

output supplied through two 4-mm jacks; four strong neodymium magnets are built into the back plate for mounting the device on a metal panel; bracket on support DL100-1H is required for mounting it on a support stand



Experiment: Malus' law