

# 3B SCIENTIFIC® PHYSICS

# Optical lamp N (230 V, 50/60 Hz) 1022613 Optical lamp N (115 V, 50/60 Hz) 1022614

#### **Instruction manual**

10/19 ML/GH



- I Optical lamp
- 2 Plug-in power supply

## 1. Safety instructions

This optical lamp conforms to safety regulations for electrical measurement, control and lab equipment as stipulated in European standard EN 61010 Part 1. It is designed for use in dry, indoor conditions suitable for electrical equipment.

Safe operation of the equipment is guaranteed as long as it is used as stipulated. Safety cannot be guaranteed, however, if the equipment is used in an incorrect manner or is handled carelessly.

If there is any suspicion that it is no longer possible to operate the equipment safely (e.g. if there is any visible damage), it should be disconnected and withdrawn from use immediately.

- Never look directly into the light beam from the optical lamp.
- If the beam should shine directly into someone's eyes, that person is likely to be dazzled.
- The equipment may only be used in dry, indoor conditions.
- Do not apply any external voltage to the output sockets.
- Do not use with any power supply other than the plug-in unit with which it is delivered.
- Do not cover the optical lamp or its power supply and always ensure they are well ventilated.

## 2. Description

The optical lamp consists of a neutral white, highpower LED incorporated into a plastic case with a magnetic base attachment. It is suitable for carrying out experiments in ray optics.

Power is provided by means of a 5 V DC plug-in power supply adapter.

Parallel beam optical lamps designated 1022614 (Optical lamp N - 115 V, 50/60 Hz) also have a US electrical supply adapter included.

### 3. Technical data

Power supply: Via plug-in supply

adapter,

5 V DC, 0.35 A

Socket type: Co-axial connector,

5.5 mm x 2.5 mm

Colour temperature: 4000 K (neutral white)

Ambient temperature: 5°C to 40°C

Atmospheric humidity: 80%
Protection class: 2
Contamination level: 2
Protection type: IP20

## **Electromagnetic compatibility**

Interference emissions: EN 55011:2009 Immunity to interference: EN 61326 -1:2013

### **Electrical safety:**

Safety

requirements: DIN EN 61010-1:2010

Dimensions: 70x70x51 mm

approx.

Weight: 150 g approx.

(including plug-in supply adapter)

#### 4. Operation

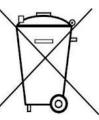
Plug the power supply adapter into the mains and connect the optical lamp to it.

This switches on the equipment and renders it ready to use. To turn off the optical lamp, simp-ly unplug its plug-in adapter from the mains.

The magnet on the bottom will attach to various metal surfaces. Among other things, the optical lamp is well suited for experiments in ray optics using optical bench N (4003987).

#### 5. Storage, cleaning and disposal

- Keep the optical lamp stored in a clean, dry and dust-free location.
- Always disconnect from the power supply before cleaning.
- Do not use any aggressive cleaning agents or solvents to clean the lamp.
- For cleaning use a soft, damp cloth.
- Packaging should be disposed of at local recycling centres.
- If the lamp itself is to be disposed of, it must not be placed in normal household refuse. If used in private premises, it can be disposed of by authorised public disposal agents.



 Comply with local regulations for disposal of electrical waste.