

Operating Instructions

Positioning Laser hedue PL2

Freely focusable positioning laser with line or cross optics · Item no. L320, L321, L322, L323



Positioning laser PL2 (shown on the magnetic holder L362, available separately)

Thank you for choosing a hedue product. Please read these operating instructions completely before using the device for the first time, pay particular attention to the safety instructions and keep the instructions for future reference. Only pass the device on to third parties together with these instructions.

1. Intended Use

The PL2 positioning laser projects a laser line or laser cross onto a workpiece, making it easier to align workpieces on machines or workbenches. The freely focusable optics allow mounting at any distance from the object. Power is supplied by the included power supply unit. Any other use is considered improper.

2. Safety Instructions

⚠ Laser radiation - Laser class 3R

- Laser radiation! Avoid direct eye exposure. Never look into the laser beam – not even with optical instruments (magnifying glass, binoculars, etc.).
- Do not point the laser beam at people or animals.
- Mount and align the laser so that the beam does not run at people's eye level and is not reflected by mirror-like surfaces.
- When using class 3R lasers, observe the applicable occupational safety regulations (e.g. appointment of a laser safety officer where required).
- Do not open the device or make any modifications to the laser. Do not remove warning labels or the type plate from the device.
- The device is not a toy and must be kept out of the reach of children.

Electrical Safety and Environment

- Use only the included power supply unit (5 V).
- Check the power supply and cable for damage before use. Do not operate a damaged device.
- Use the power supply unit only in dry indoor areas. The laser head is protected to IP54 against harmful dust and splashing water – do not immerse in water.
- Permissible operating temperature: red version –10 °C to +50 °C, green version –20 °C to +60 °C.

3. Scope of Delivery and Accessories

Included	Accessories available separately
• Positioning laser PL2 • Power supply unit for positioning laser PL2 (Europlug type C) • Operating instructions Note: The device is supplied without a holder.	• L362 – Magnetic holder for PL2, with ball joint for 20 mm shaft (65 g, 62 x 25 mm) • L361 – Ceiling mount for PL2, with 2 ball joints for 20 mm shaft (115 g, 120 x 30 mm)

4. Getting Started

4.1 Connecting the power supply



Fig. 1: Power supply unit with barrel plug and Europlug (type C)



Fig. 2: Connection socket at the cable end of the laser; laser on magnetic holder (accessory L362)

- 1 Insert the barrel plug of the power supply unit (Fig. 1) fully into the connection socket at the cable end of the laser (Fig. 2).
- 2 Plug the power supply unit into a mains socket. The laser switches on immediately – there is no separate on/off switch.
- 3 To switch off, unplug the power supply unit from the mains socket.

The laser is protected against overvoltage by surge/spike protection; the housing is electrically insulated. The power supply unit features high interference immunity, making it suitable for use on machines.

4.2 Mounting

- 1** Insert the laser (housing Ø 20 mm) into a suitable holder, e.g. the magnetic holder L362 or the ceiling mount L361.
- 2** Attach the holder to the machine or workbench. The magnetic holder adheres to steel surfaces.
- 3** Set the desired direction using the ball joint. Rotate the laser in the clamp to turn the laser line to the desired position.
- 4** Tighten the clamping screw of the holder with an Allen key.
- 5** Route the cable with strain relief so that it cannot be caught by moving machine parts.

4.3 Focusing



Fig. 3: Focusing by turning the knurled front part of the laser

- 1** Switch on the laser in its final mounting position.
- 2** Slowly turn the knurled front part of the laser (Fig. 3) until the laser line or laser cross appears as narrow and sharp as possible on the workpiece.
- 3** Repeat the focusing each time the mounting distance is changed.

Note: Focusing sharpens the line for the respective mounting distance. At mounting distances of 1 m and 3 m, a line width of approx. 2 mm was measured after focusing. The length of the projected line increases with the mounting distance (see Technical Data).

5. Technical Data

	PL2 red laser line	PL2 red laser cross	PL2 green laser line	PL2 green laser cross
Item no.	L320	L321	L322	L323
Optics	Line	Cross	Line	Cross
Laser colour	red	red	green	green
Laser diode (wavelength)	635 nm	635 nm	520 nm	520 nm
Power	50 mW	50 mW	30 mW	30 mW
Laser class	3R	3R	3R	3R
Line length / mounting distance	2.20 m / 1 m	2.00 m / 1 m	2.50 m / 1 m	2.20 m / 1 m
Line width	1 mm	1 mm	1 mm	1 mm
Laser diode service life	10,000 h	10,000 h	10,000 h	10,000 h
Operating temperature	-10 to +50 °C	-10 to +50 °C	-20 to +60 °C	-20 to +60 °C
Power supply	5 V	5 V	5 V	5 V
Mains plug	Type C	Type C	Type C	Type C
IP protection class	IP54	IP54	IP54	IP54
Dimensions	80 x 20 mm	80 x 20 mm	80 x 20 mm	80 x 20 mm
Weight	70 g	70 g	70 g	70 g
Warranty	24 months	24 months	24 months	24 months
EAN	4012589763203	4012589763210	4012589763227	4012589763234

Common features of all versions: freely focusable optics, power supply unit with high interference immunity, overvoltage protection by surge/spike protection, electrically insulated housing. Subject to technical changes.

6. Care and Maintenance

- Unplug the power supply unit from the mains socket before cleaning.
- Clean the housing with a soft, slightly damp cloth. Do not use solvents or abrasive cleaners.
- Carefully wipe the exit optics with a clean, lint-free cloth (e.g. lens cleaning cloth) – dirty optics result in blurred lines.
- Store the device in a dry, dust-protected place out of the reach of children.

7. Troubleshooting

Problem	Possible cause	Remedy
No laser beam	No power; plug not fully inserted	Check plug connection and mains socket; insert barrel plug fully
Line wide or blurred	Focus does not match mounting distance; optics dirty	Refocus (section 4.3); clean optics
Line skewed / shifted	Holder has come loose	Realign laser and tighten clamping screw
Line poorly visible	Strong ambient light	Reduce ambient light or use green version (perceived as brighter by the eye)

8. Warranty and Repair

hedue grants a 24-month warranty on the PL2 positioning laser. In case of drop damage or after the warranty has expired, the device is repaired at a flat rate of € 49.00 (plus VAT). Warranty and repair services can only be ordered via our website **www.hedue.de** on the respective product page. Spare parts are not offered.

9. Disposal

Electrical and electronic equipment must not be disposed of with household waste. At the end of its service life, take the device to a collection point for waste electrical equipment. WEEE reg. no. DE 98251620.

10. Conformity and Manufacturer

The device complies with the relevant EU directives. The CE declaration of conformity is available for download on www.hedue.de on the respective product page.

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