DigiLevel Pro 40/60/80/100/120

! Completely read through the operating instructions, the „Warranty and Additional Information" booklet as well as the latest information under the internet link at the end of these instructions. Follow the instructions they contain. This document must be kept in a safe place and passed on together with the device.

Function / application

Digital electronic spirit level with red laser technology
– Point laser for optical extension of the spirit level
– Horizontal and vertical angle display
– The slope memory allows angles to be easily transferred
– Measured data transfer via Bluetooth® interface

General safety instructions

– The device must only be used in accordance with its intendedpurpose and within the scope of the specifications.
– The measuring tools and accessories are not toys. Keep out of reach of children.
– Modifications or changes to the device are not permitted, this will otherwise invalidate the approval and safety specifications.
– Do not expose the device to mechanical stress, extreme temperatures, moisture or significant vibration.
– The device must no longer be used if one or more of its functions fail or the battery charge is weak.

Safety instructions

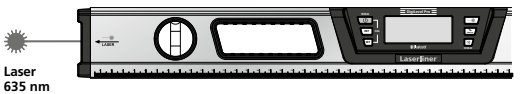
Using class 2 lasers

Laser radiation!
Do not stare into the beam!
Class 2 laser
< 1 mW · 635 nm
EN 60825-1:2014/AC:2017

– Attention: Do not look into the direct or reflected beam.
– Do not point the laser beam towards persons.
– If a person's eyes are exposed to class 2 laser radiation, they should shut their eyes and immediately move away from the beam.
– Under no circumstances should optical instruments (magnifying glass, microscope, binoculars) be used to look at the laser beam or reflections.
– Do not use the laser at eye level (1.40 ... 1.90 m)
– Reflective, specular or shiny surfaces must be covered whilst laser devices are in operation.

– In public areas shield off the laser beam with barriers and partitions wherever possible and identify the laser area with warning signs.

Laser outlet



Safety instructions
Dealing with electromagnetic radiation

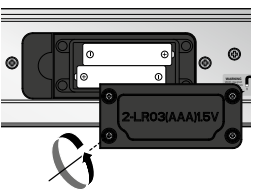
– The measuring device complies with electromagnetic compatibility regulations and limits in accordance with the EMC Directive 2014/30/EU which is covered by the Radio Equipment Directive 2014/53/EU.
– Local operating restrictions – for example, in hospitals, aircraft, petrol stations or in the vicinity of people with pacemakers – may apply. Electronic devices can potentially cause hazards or interference or be subject to hazards or interference.
– The measuring accuracy may be affected when working close to high voltages or high electromagnetic alternating fields.

Safety instructions
Dealing with RF radiation

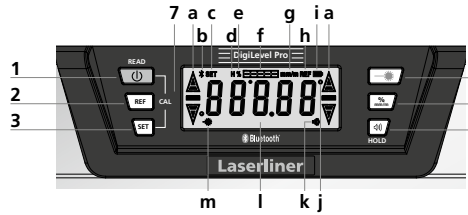
– The measuring device is equipped with a wireless interface.
– The measuring device complies with electromagnetic compatibility and wireless radiation regulations and limits in accordance with the RED 2014/53/EU.
– Umarex GmbH & Co. KG hereby declares that the DigiLevel Pro 40/60/80/100/120 radio equipment complies with the essential requirements and other provisions of the European Radio Equipment Directive 2014/53/EU (RED). The EU Declaration of Conformity can be found in its entirety at the following address: **http://laserliner.com/info?an=AHJ**

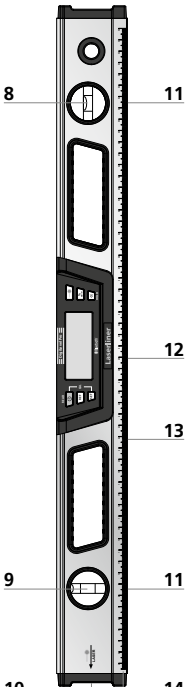
1 Inserting batteries

Open the battery compartment and insert batteries according to the symbols. Be sure to pay attention to polarity.



DigiLevel Pro 40/60/80/100/120





1 ON/OFF button / READ: Transfer measured data via Bluetooth® interface
2 Angle reference value setting / 3 sec.: change sensitivity
3 Set gradient function
4 Laser ON/OFF
5 Change units of measure
6 Acoustic signal generator ON/OFF / Hold function
7 Calibration

a Slope direction
b Bluetooth® function activated
c Gradient function set
d HOLD: current measured value is held
e Unit of measurement %
f Digital bubble level
g Unit of measurement mm/m
h Angle reference set
i Battery charge
j Unit of measurement ° degrees
k Acoustic signal generator active
l Slope angle
m Laser active

8 Horizontal vial
9 Vertical vial
10 Laser outlet
11 Magnets
12 Battery compartment (Rear)
13 Measuring surface
14 Measuring scale (DigiLevel Pro 40 / 60 only)

2 Switching on and measuring

! Make sure that the reference function is deactivated before measuring.

The DigiLevel Pro 40/60/80/100/120 can measure angles continuously to 360°.

– Switch the DigiLevel Plus on using the on/off switch (1).
– The slope angle is shown in the display (l). If slopes are measured overhead, the direction of display adjusts automatically.
– The current slope direction is also shown by the symbol (a).

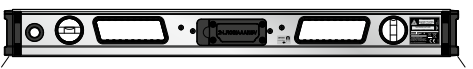
3 Selection of unit of measurement

Button (5) allows the desired unit of measurement to be selected (° degrees, %, mm/m).

4 Calibration

1. Place the unit with its measuring edge (13) down on a straight surface and mark the positions of the unit's ends on the underlying surface (see Fig. below). Switch on device (1). To access calibration mode simultaneously press buttons 1 and 3. -1- appears on the display.
2. Then press the READ button (1). -1- flashes. The display then changes to -2-.

3. Now turn the unit around horizontally (end-for-end) by 180° such that its ends are positioned opposite where they previously were but again exactly at the underlying surface marks (reverse measurement). Then press the READ button (1) again. -2- flashes. The subsequent acoustic signal concludes the process.



! The unit is properly calibrated when it displays the same measurement value, i.e. the underlying surface's deviation from absolute level, in both positions (0° and 180°).

5 HOLD

Hold down the HOLD button (6) to keep displaying the current measured value.

6 Changing the angle reference value

With button (2), it is possible to transfer angles elsewhere. To do so, set the device to the desired slope and press button (2). The display then changes to „0.00°“, „REF“ appears on the display and the required reference angle is set. The slope can now be transferred to other objects.

Press button (2) again to deactivate the angle reference.

7 Gradient function

Preset gradients of 1%, 2%, 3% and 4% can be set using the button (3). Keep pressing the button until the required value is displayed. The gradient function is switched off by pressing and holding button (3).

8 Acoustic signal

The acoustic signal can be switched on or off with button (6). When the angle of slope stands at 0°, 45°, 90° or the most recently stored value, this is indicated by an acoustic signal.

! When working with a changed angle reference value, the acoustic signal is activated on reaching the new reference value (0°, 45°, 90° display).

AUTO OFF function

In order to preserve the batteries, the measuring device switches off automatically if it is left idle for 10 minutes. Backlighting switches off after 1 minute.

Data transfer

The device features a Bluetooth®* function that enables wireless data transfer to mobile devices with a Bluetooth®* interface (such as a smartphone or tablet).

The system prerequisites for a Bluetooth®* connection are specified at **http://laserliner.com/info?an=ble**

The device can set up a Bluetooth®* connection with Bluetooth 4.0 compatible devices.

The range is set to a maximum distance of 10 m from the terminal device and greatly depends on the ambient conditions such as the thickness and composition of walls, sources of interference as well as the transmit / receive properties of the terminal device.

Once it has been activated, Bluetooth®* remains switched on indefinitely as the radio system is designed with exceptionally low power consumption.

A mobile device can link up to the active measuring device via an app.

* The Bluetooth® word mark and the logo are registered trademarks of Bluetooth SIG Inc.

Application (app)

An app is required to use the Bluetooth®* function. You can download the app from the corresponding stores for the specific type of terminal device:

! Make sure that the Bluetooth®* interface of the mobile device is activated.

After starting the app and activating the Bluetooth®* function, a connection can be set up between a mobile device and the measuring device. If the app detects several active measuring devices, select the matching device.

This measuring device can be connected automatically the next time it is switched on.

* The Bluetooth® word mark and the logo are registered trademarks of Bluetooth SIG Inc.

Information on maintenance and care

Clean all components with a damp cloth and do not use cleaning agents, scouring agents and solvents. Remove the battery(ies) before storing for longer periods. Store the device in a clean and dry place.

Danger – powerful magnetic fields

Powerful magnetic fields can adversely affect persons with active medical implants (e.g. pacemaker) as well as electromechanical devices (e.g. magnetic cards, mechanical clocks, precision mechanics, hard disks).

With regard to the effect of powerful magnetic fields on persons, the applicable national stipulations and regulations must be complied with such as BGV B11 §14 „electromagnetic fields" (occupational health and safety - electromagnetic fields) in the Federal Republic of Germany.

To avoid interference/disruption, always keep the implant or device a safe distance of at least 30 cm away from the magnet.

Calibration

The measuring device must be calibrated and tested on a regular basis to ensure it is accurate and working properly. We recommend carrying out calibration once a year. Contact your distributor or the UMAREX-LASERLINER service department.

Technical data	
Electronic measuring precision	± 0.05° at 0° … 1° ± 0.1° at 1° … 89° ± 0,05° at 89° … 90°
Vial accuracy	± 0.5 mm/m
Display accuracy	2 decimal places
Laser wavelength	635 nm
Laser class	2 / < 1 mW (EN 60825-1:2014/AC:2017)
Power supply	2 x 1.5V LR03 (AAA)
Operating time	with laser: approx. 10 hours without laser: approx. 55 hours
Radio module operating data	Bluetooth LE 4.x interface; Frequency band: ISM band 2400–2483.5 MHz, 40 channels; Transmission power: max. 10 mW; Bandwidth: 2 MHz; Bit rate: 1 Mbit/s; Modulation: GFSK/FHSS
Operating conditions	-10°C … 50°C, max. humidity 80% rH, no condensation, max. working altitude 2000 m above sea level
Storage conditions	-20°C … 70°C, max. humidity 80% rH
Dimensions **40**	400 x 63 x 33 mm (W x H x D)
Dimensions **60**	600 x 63 x 33 mm (W x H x D)
Dimensions **80**	800 x 63 x 33 mm (W x H x D)
Dimensions **100**	1000 x 63 x 33 mm (W x H x D)
Dimensions **120**	1200 x 63 x 33 mm (W x H x D)
Weight **40/60/80/100/120**	548 g / 722 g / 968 g / 1105 g / 1360 g (incl. batteries)

Subject to technical change without notice. 20W36

EU directives and disposal

This device complies with all necessary standards for the free movement of goods within the EU.

This product is an electric device and must be collected separately for disposal according to the European Directive on waste electrical and electronic equipment.

Further safety and supplementary notices at:
http://laserliner.com/info?an=AHJ