AFTER 30

Pulsoximeter

Beurer GmbH • Soeflinger Strasse 218 • 89077 Ulm, Germany
www.beurer.com • www.beurer-gesundheitsratgeber.com
www.beurer-healthguide.com

GERMAN

Dear Customer,

We are pleased that you have chosen a product from our range. Our name stands for high-quality and thoroughly tested quality products in the areas of heat, weight, blood pressure, body temperature, pulse, gentle therapy, massage, beauty, baby and air. Please read these instructions for use carefully, keep them for later use, make them accessible to other users and follow the instructions.

With kind regards
Your Beurer team

1. Scope of delivery

1x PO 30 pulse oximeter, 2x 1.5 V AAA batteries LR03, 1x neck strap, 1x belt pouch, 1x these instructions for use

2. Intended use

Only use the Beurer PO 30 pulse oximeter on humans to measure arterial oxygen saturation (SpOÿ) of hemoglobin and heart rate (pulse rate).
The pulse oximeter is suitable for use in the private environment (at home) as well as in the medical field (hospitals, medical facilities).

3. To get to know each other

The Beurer PO 30 pulse oximeter is used for non-invasive measurement of arterial oxygen saturation (SpO2) and heart rate (pulse rate). The oxygen saturation indicates what percentage of the hemoglobin in the arterial blood is loaded with oxygen. It is therefore an important parameter for assessing respiratory function. The pulse oximeter uses two light beams of different wavelengths to measure, which hit the finger inside the housing. A low oxygen saturation value is mainly due to diseases (respiratory diseases, asthma, cardiac insufficiency, etc.).

The following symptoms occur more frequently in people with a low oxygen saturation value: shortness of breath, increased heart rate, loss of performance, nervousness and sweating. A chronic and known reduced oxygen saturation requires monitoring by your pulse oximeter under medical supervision. An acutely reduced oxygen saturation, with or without accompanying symptoms, must be clarified immediately by a doctor, it can be a life-threatening situation. The pulse oximeter is therefore particularly suitable for patients at risk such as people with heart disease and asthmatics, but also for athletes and healthy people who move at high altitudes (e.g. mountaineers, skiers or sports pilots).

4. Explanation of symbols

The following symbols are used in the instructions for use, on the packaging and on the type plate of the device:

⚠	**WARNING** Warning of the risk of injury or danger to your health	Storage	Permissible storage temperature and humidity
⚠	**DANGER** Security notice on possible Damage to device/accessories	Operating	Permissible operating temperature and humidity
ⓘ	**a notice** Reference to important information		Applied part type BF
	Follow the instructions	SN	serial number
%SpOÿ	Arterial oxygen saturation of hemoglobin (in percent)	CE 0483	**CE marking** This product meets the requirements of the applicable European and national guidelines.
PR bpm	Pulse rate (beats per Minute)		Manufacturer
	Disposal according to electrical and Waste electronic devices EC Directive WEEE (Waste Electrical and Electronic Equipment)		alarm suppression
Pb Cd Hg	Do not dispose of batteries containing harmful substances in household waste	IP 22	Device protected against foreign objects ÿ12.5 mm and against tilting Tropfwasser

5. Warnings and Precautions

Read these instructions for use carefully! Failure to observe the following instructions can cause personal injury or damage to property. Keep the instructions for use
instructions and make them accessible to other users. Pass on these operating instructions if the device is passed on.

⚠ WARNING

- Check that all parts specified in the scope of delivery are included.
- Check the pulse oximeter regularly to ensure that there is no visible damage before use and that the batteries are sufficiently charged. If in doubt, do not use it and contact Beurer customer service or an authorized dealer.
- Do not use any additional parts that are not recommended by the manufacturer or offered as accessories become.
- Under no circumstances may you open or repair the device, as otherwise it cannot be guaranteed that it will function properly. Failure to do so will void the warranty. For repairs, contact Beurer customer service or an authorized dealer.

Use the pulse oximeter

- ÿ NOT if you are allergic to rubber products.
- ÿ NOT if the device or the application finger is wet.
- ÿ NOT on small children or infants.
- ÿ NOT during an MRI or CT scan.
- ÿ NOT during a blood pressure measurement on the arm side with cuff application.
- ÿ NOT on fingers with nail polish, dirt or plaster bandages.
- ÿ NOT on thick fingers that cannot be easily inserted into the device (Finger tip: width approx. > 20 mm, thickness approx. >15 mm).
- ÿ NOT on fingers with anatomical changes, edema, scars or burns gen.
- ÿ NOT on fingers that are too thin and too small, such as those of small children occur (width approx. < 10 mm, thickness approx. < 5 mm).
- ÿ NOT on patients who are restless at the application site (eg tremors).
- ÿ NOT in the vicinity of flammable or explosive gas mixtures.

- Prolonged use of the pulse oximeter can cause pain in persons with circulatory disorders. Therefore, do not use the pulse oximeter on a finger for more than about 2 hours.

- The pulse oximeter always shows an instantaneous reading, but cannot be used for continuous monitoring. • The pulse oximeter does not have an alarm function and is therefore not suitable for evaluation
medical results.
- Based on the measurement results, do not conduct self-diagnosis or treatment without consultation with your treating doctor. In particular, do not start any new medication yourself and do not make any changes to the type and/or dosage of an existing medication.

- Do not look directly into the inside of the housing during the measurement process. The red light and the invisible infrared light from the pulse oximeter are harmful to the eyes.
- This device is not intended to be used by people (including children) with restricted physical, sensory or mental abilities or lack of experience and/or knowledge, unless they are supervised by a person responsible for their safety or received instructions from her on how to use the device. Children should be supervised to ensure they do not play with the device. • The display of the pulse wave and the pulse column do not allow any assessment of the pulse or blood flow strength at the measurement location, but only serve to display the current optical signal variation at the measurement location, but they do not enable reliable pulse diagnostics.

Failure to follow the instructions below may result in erroneous measurements or measurement failure.

- There should be no nail polish, artificial nails or other cosmetics on the measuring finger. • When using the measuring finger, ensure that the fingernail is short enough for the fingertip to cover the sensor elements in the housing.
- Keep your hand, fingers and body still during the measurement process.
- In the case of people with cardiac arrhythmias, the measured SpOÿ and heart rate values may be incorrect or the measurement may not be possible at all.
- Pulse oximeter readings are too high in case of carbon monoxide poisoning.
- In order not to falsify the measurement result, there should be no strong light sources (eg fluorescent lamps or direct sunlight) in the immediate vicinity of the pulse oximeter.

- People who have low blood pressure, suffer from jaundice or are taking medication that causes vasoconstriction may have erroneous or falsified measurements.

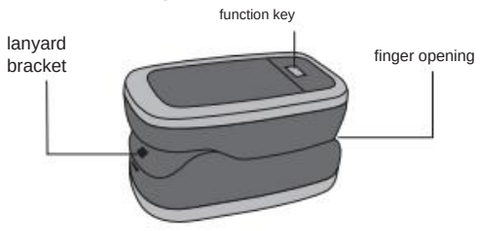
- Patients who have received clinical dyes in the past and patients with abnormal hemoglobin levels are likely to be biased. This applies in particular to carbon monoxide poisoning and methaemoglobin poisoning, which are caused, for example, by the administration of local anesthetics or when there is a methaemoglobin reductase deficiency.

- Protect the pulse oximeter from dust, shock, moisture and extreme temperatures and explosive substances.

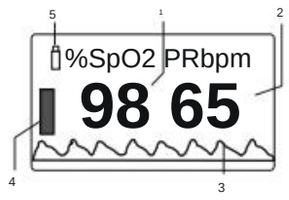
⚠ Notes on handling batteries

- If liquid from a battery cell comes into contact with skin or eyes that are affected wash the area with water and seek medical attention.
- ⚠ Danger of swallowing! Small children could swallow batteries and choke on them. Therefore, keep batteries out of the reach of small children!
- Pay attention to the plus (+) and minus (-) polarity markings.
- If a battery has leaked, put on protective gloves and remove the battery compartment clean with a dry cloth.
- Protect batteries from excessive heat.
- ⚠ Danger of explosion! Do not throw batteries into fire.
- Batteries must not be charged or short-circuited.
- If the device is not going to be used for a long time, remove the batteries from the battery compartment.
- Use only the same or equivalent type of battery. • Always replace all batteries at the same time.
- Do not use rechargeable batteries!
- Do not disassemble, open or shred batteries.

6. Device Description



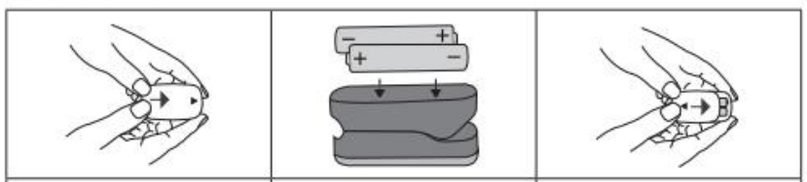
Display description



1. Oxygen saturation (value in percent)
2. Pulse rate (value in beats per minute)
3. Pulse Wave (Plethysmographic Wave)
4. Pulses
5. Battery indicator

7. Commissioning

7.1 Insert batteries



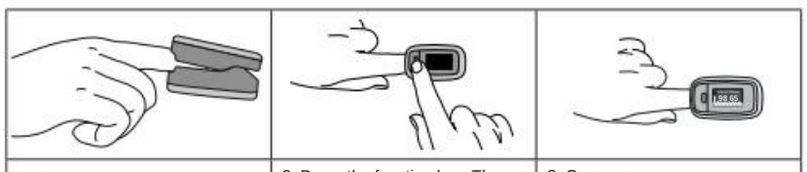
1. Slide open the battery compartment cover.	2. Place the two supplied batteries as shown (with the correct polarity) into the pulse oximeter.	3. Close the battery compartment cover again.

7.2 Fasten the neck strap

You can attach a lanyard to the device to make it easier to carry the pulse oximeter.

1. Slide the narrow end of the lanyard through the bracket as shown.	2. Pull the other end of the cape bands firmly through the loop of the narrow end.

8. Service



1. Slide a finger into the finger hole of the pulse oximeter as shown. Keep your finger steady.	2. Press the function key. The pulse oxi meter starts measuring. Do not move during the measurement process.	3. On screen Your measured values will appear after a few seconds.

ⓘ a notice

If you pull your finger out of the pulse oximeter, the device switches off automatically after approx. 5 seconds.

function key

The function button of the pulse oximeter has a total of two functions:

- **Power-on function:** When the pulse oximeter is switched off, you can switch it on by briefly Press and hold the function button to turn on.
- **Brightness function:** To set your desired display brightness, hold down the function key is pressed longer during operation.

ⓘ A notice:

The orientation of the display (portrait, landscape) is done automatically. This allows you to view the values on the display at any time
read no matter how you hold the pulse oximeter.

9. Assess measurement results

⚠ WARNING

The following table for evaluating your measurement results does NOT apply to people with certain pre-existing conditions (e.g. asthma, cardiac insufficiency, respiratory diseases) and for stays at altitudes over 1500 meters. If you have any pre-existing conditions, always consult your doctor to evaluate your readings.

Measurement result SpOÿ (oxygen saturation) in %	Classification / Measures to be taken
99-94	normal range
93-90	Depressed area: doctor's consultation recommended
< 90	Critical area: Consult a doctor urgently

Altitude dependent decrease in oxygen saturation

ⓘ a notice

The table below informs you about the effects of different altitudes on the oxygen saturation value and their consequences for the human organism. The following table does NOT apply to people with certain pre-existing conditions (e.g. asthma, heart failure, respiratory diseases, etc.). Symptoms (e.g. hypoxia) can already occur at lower altitudes in persons with pre-existing conditions.

altitude	Expected SpOÿ value (oxygen saturation) in %	consequences for humans
1500-2500 m	> 90	No altitude sickness (usually)
2500-3500 m	~90	Altitude sickness, adaptation recommended
3500-5800 m	<90	Very frequent occurrence of altitude sickness, adaptation is absolutely necessary
5800-7500 m	<80	Severe hypoxia, only temporary stay possible
7500-8850 m	<70	Immediate acute danger to life

Quelle: Hackett PH, Roach RC: High-Altitude Medicine. In: Auerbach PS (ed): Wilderness Medicine, 3rd edition; Mosby, St.Louis, MO 1995; 1-37.

10. Cleaning / Maintenance

⚠ CAUTION:

Do not use high-pressure sterilization on the pulse oximeter!
Never hold the pulse oximeter under water, otherwise liquid can penetrate and damage the pulse oximeter.

- Clean the housing and the rubberized inner surface of the Pulso after each use ximeters with a soft cloth dampened with medicinal alcohol.
- If the pulse oximeter display shows a low battery condition, replace the batteries.

- If you will not be using the pulse oximeter for more than a month, remove both batteries from the device to prevent possible battery leakage.

11. Retention

⚠ DANGER:

Store the pulse oximeter in a dry environment (relative humidity ÿ95%). Excessive humidity can shorten the life of the pulse oximeter or damage it. Store the pulse oximeter in a place where the ambient temperature is between -40°C and 60°C.

12. Disposal

In the interest of environmental protection, the device must not be disposed of with household waste at the end of its service life.
Disposal can take place at appropriate collection points in your country. Dispose of the device in accordance with the WEEE (Waste Electrical and Electronic Equipment) EC directive.

If you have any questions, please contact the local authority responsible for disposal.
You must dispose of the used, completely discharged batteries via specially marked collection containers, hazardous waste collection points or via the electronics retailer.
You are legally obliged to dispose of the batteries.
You will find these symbols on batteries containing harmful substances: Pb = battery contains lead,
Cd = battery contains cadmium, Hg
= battery contains mercury.

Pb Cd Hg

13. What to do in case of problems?

Problem	Possible Cause	fix
Das Pulsoximeter shows no measurement values.	The batteries in the pulse oximeter are empty.	Replace the batteries.
	Batteries not inserted correctly.	Insert batteries again. If readings are still not displayed after correctly installing the batteries, contact customer service.
Pulse oximeter shows measurement interruptions or high jumps in measured values.	Insufficient blood flow to the measuring finger.	Observe the warnings and safety instructions in Chapter 5.
	Measuring finger is too big or too small.	Fingertip must have the following dimensions: Width between 10 - 20 mm Thickness between 5 - 15 mm
	Finger, hand or body is in motion.	Keep your fingers, hand and body still during the measurement.
	cardiac arrhythmias	Consult a doctor.

14. Specifications

Model no.	AFTER 30
measurement method	Non-invasive measurement of arterial oxygen saturation Hemoglobin and pulse rate on finger
measuring range	SpOÿ 0 – 100%, Pulse 30-250 beats/minute
accuracy	SpOÿ 70 –100%, ±2%, Pulse 30 - 250 bpm, ±2 beats/minute
Dimensions	L 61 mm x B 36 mm x H 32 mm
Weight	Approx. 58 g (including batteries)
Sensor technology for measuring SpOÿ	red light (wavelength 660 nm); infrared (wavelength 880 nm); Silicon receiver diode
Permissible operating conditions	+10°C to +40°C, <75% relative humidity, 700–1060 hPa ambient pressure
Permissible storage conditions	-40°C to +60°C, ÿ95% relative humidity, 500–1060 hPa ambient pressure
power supply	2x 1,5 V ⎓ AAA batteries
battery life	2 AAA batteries enable approx. 2 years of operation with 3 measurements per day (60 seconds each)
classification	IP22, type BF applied part

The serial number can be found on the device or in the battery compartment.

Specifications are subject to change without notice for update reasons.

- This device complies with European standards EN60601-1 and EN60601-1-2 (Rev compliance with CISPR 11, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-8) and is subject to special precautions regarding electromagnetic compatibility. Please note that portable and mobile HF communication devices can affect this device. You can request more detailed information from the customer service address provided.

- The device complies with the EU directive for medical devices 93/42/EEC, the medical device law and the standard DIN EN ISO 80601-2-61 (medical electrical devices - special specifications for the basic safety and the essential performance characteristics of pulse oximeters for medical Use).

⚠ Notes on Electromagnetic Compatibility

- The device is suitable for use in all environments specified in this manual solution, including the home environment.
- The device may have limited usability in the presence of electromagnetic disturbances. As a result, error messages or a failure of the display/device may occur.

- The use of this device adjacent to other devices or stacked with other devices should be avoided as it may result in erroneous operation. If use of the prescribed kind is nevertheless necessary, this device and the other devices should be observed to be sure that they are working properly.

- The use of accessories other than those provided by the manufacturer of this device specified or provided, can result in increased electromagnetic interference emissions or reduced electromagnetic interference immunity of the device and lead to incorrect operation.

- Keep portable RF communications equipment (including peripherals such as antenna cables or external antennas) at least 30 cm away from all parts of the device, including any cables provided. Non-observance can lead to a reduction in the performance characteristics of the device.

- Non-observance can lead to a reduction in the performance characteristics of the device.

15. Warranty/Service

Beurer GmbH, Söflinger Straße 218, D-89077 Ulm (hereinafter referred to as "Beurer") grants a guarantee for this product under the following conditions and to the extent described below.

The following warranty conditions do not affect the statutory warranty obligations of the seller from the purchase contract with the buyer.
The guarantee also applies without prejudice to mandatory statutory liability regulations.

Beurer guarantees the flawless functionality and completeness of this product.

The worldwide guarantee period is 5 years from the start of the purchase of the new, unused product by the buyer.

This guarantee only applies to products that the buyer has purchased as a consumer and uses exclusively for personal purposes within the framework of domestic use.
German law applies.

If this product proves to be incomplete or defective in terms of functionality during the guarantee period in accordance with the following provisions, Beurer will carry out a replacement delivery or repair free of charge in accordance with these guarantee conditions.

If the buyer would like to report a warranty claim, they should first contact Beurer Customer Service: Beurer GmbH, Service Center Tel: +49 731 3989-144

For quick processing, please use our contact form on the homepage www.
beurer.com under the heading 'Service'.

The buyer then receives more detailed information on how to process the guarantee case, eg where to send the product free of charge and which documents are required.

A claim under the guarantee can only be considered if the buyer can present - a copy of the invoice/purchase receipt and - the original product to Beurer or an authorized Beurer partner.

Specifically excluded from this warranty are - wear and tear
resulting from normal use or consumption of the product;
- accessories supplied with this product that wear out or are used up with proper use (e.g. batteries, rechargeable batteries, cuffs, seals, electrodes, lamps, attachments, inhaler accessories); - Products that have been used, cleaned, stored or serviced improperly and/or contrary to the provisions of the operating instructions, as well as products that have been opened, repaired or modified by the buyer or a service center not authorized by Beurer; - Damage occurring on the transport route between the manufacturer and the customer or between the service center and the customer

- Products purchased as 2nd choice or used items;
- Consequential damage caused by a defect in this product (in this case, however, there may be product liability claims or other mandatory statutory liability provisions).

Repairs or a complete replacement do not extend the warranty period under any circumstances.

Subject to errors and changes

AFTER 30

Pulse oximeter

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ENGLISH

Dear customer,
Thank you for choosing one of our products. Our name stands for high-quality, thoroughly tested products for applications in the areas of heat, weight, blood pressure, body tempera ture, pulse, gentle therapy, massage, beauty, baby and air. Please read these instructions for use carefully and keep them for later use, be sure to make them accessible to other users and observe the information they contain.

With kind regards,
Your Beurer team

1. Included in delivery

1x PO 30 pulse oximeter, 2x 1.5 V LR03 AAA batteries, 1x Lanyard, 1x Belt bag, 1x These instructions for use

2. Intended use

Only use the Beurer PO 30 pulse oximeter on humans to measure the arterial oxygen saturation (SpOÿ) of haemoglobin and the heart rate (pulse rate). The pulse oximeter is suitable for private use (at home) as well as for use in the medical sector (hospitals, medical establishments).

3. Getting to know your device

The Beurer PO 30 pulse oximeter provides a non-invasive measurement of the arterial oxygen saturation (SpO2) and the heart rate (pulse rate). Oxygen saturation indicates the percentage of haemoglobin in arterial blood that is loaded with oxygen. Therefore it is an important parameter for assessing the respiratory function. To take a measurement, the pulse oximeter uses two rays of light with differing wavelengths, which strike the finger inserted inside the housing. A low oxygen saturation value generally indicates underlying illnesses (respiratory diseases, asthma, heart failure etc.).

People with a low oxygen saturation value are more likely to experience the following symptoms: shortness of breath, increased heart rate, weakness, nervousness and outbreaks of sweating. If oxygen saturation is known to be chronically diminished, it requires monitoring using the pulse oximeter under medical supervision. If you have acutely diminished oxygen saturation, with or without the accompanying symptoms, you must consult a doctor immediately as it could lead to a life-threatening situation. The pulse oximeter is particularly suitable for patients at risk such as people with heart disease or asthma, but also for athletes and healthy people who exercise at high altitude (e.g. mountaineers, skiers or amateur pilots).

4. Signs and symbols

The following symbols are used in these instructions for use, on the packaging and on the type plate for the device:

⚠	**WARNING** Warning instruction indicating a risk of injury or damage to health	Storage	Permissible storage temperature and humidity
⚠	**IMPORTANT** Safety note regarding potential for damage to the device/accessories	Operating	Permissible operating tempera ture and humidity
ⓘ	**Note** Note on important information		Application part, type BF
	Observe the instructions for use	SN	Serial number
%SpOÿ	Arterial oxygen saturation of haemoglobin (in percent)	CE 0483	**CE labelling** This product satisfies the require ments of the applicable Euro pean and national directives.
PR bpm Pulse rate (beats per minute)			Manufacturer
	Disposal in accordance with EC Directive WEEE (Waste Electrical and Electronic Equipment)		Alarm suppression
Pb Cd Hg	Do not dispose of batteries con taining hazardous substances with household waste.	IP 22	Device protected against foreign objects ÿ 12.5 mm and against falling drops of water

5. Warnings and safety notes

Read these instructions for use carefully. Non-observance of the following information may result in personal injury or material damage. Store these instructions for use and make them accessible to other users. Make sure you include these instructions for use when handing over the device to third parties.

⚠ WARNING

- Check to ensure that the package contains all the parts that should be included in the deliv ery.
- Check the pulse oximeter regularly before use to ensure that there is no visible damage to the device and the batteries are still sufficiently charged. In case of doubt, do not use the device and contact Beurer customer services or an authorised retailer.
- Do not use any additional parts that are not recommended by the manufacturer or offered as equipment.
- Under no circumstances should you open or repair the device yourself, as faultless function ality could no longer be guaranteed thereafter. Failure to comply will result in voiding of the warranty. For repairs, please contact Beurer customer services or an authorised retailer.

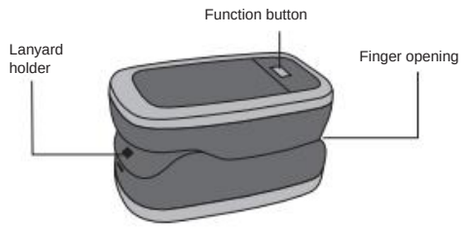
Do NOT use the pulse oximeter
ÿ if you are allergic to rubber products.
ÿ if the device or the finger you are using is damp.
ÿ on small children or babies.
ÿ during an MRI or CT scan.
ÿ whilst taking a blood pressure measurement on the same arm using a cuff.
ÿ on fingers that have nail varnish on, are dirty or have a plaster or other dressing on them.
ÿ on large fingers that do not fit into the device easily (fingertip: width approx. > 20 mm, thickness >15 mm).
ÿ on fingers with anatomical changes, oedemas, scars or burns.
ÿ on fingers that are too small, as with small children for example (width approx. < 10 mm, thickness < 5 mm).
ÿ on patients who are not steady at the site of application (e.g. trembling).
ÿ near flammable or explosive gas mixtures.

- Using the device for long periods may cause pain for people with circulatory disorders. Therefore do not use the pulse oximeter for longer than approx. 2 hours on one finger.
- The pulse oximeter displays a current measurement but cannot be used for continuous monitoring.
- The pulse oximeter does not have an alarm function and is therefore not suitable for evaluat ing medical results.
- Do not self-diagnose or self-medicate on the basis of the measurements without consulting your doctor. In particular, do not start taking any new medication or change the type and/or dosage of any existing medication without prior approval.
- Do not look directly inside the housing during the measurement. The red light and the invis ible infra-red light in the pulse oximeter are harmful to your eyes.
- This device is not intended for use by people (including children) with restricted physical, sensory or mental skills or a lack of experience and/or a lack of knowledge, unless they are supervised by a person who has responsibility for their safety or they receive instructions from this person on how to use the device. Children should be supervised around the device to ensure they do not play with it.
- Neither of the displays for the pulse wave and pulse bar allows the strength of the pulse or circulation to be evaluated at the measurement site. Rather, they are exclusively used to display the current visual signal variation at the measurement site and do not enable reliable diagnos tics for the pulse.

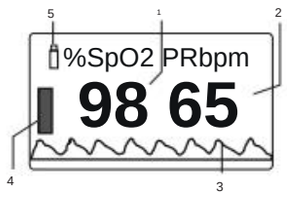
Non-observance of the following instructions can lead to incorrect or failed measurements.
- There must not be any nail varnish, artificial nails or other cosmetics on the finger to be measured.
- Ensure that the finger nail on the finger to be measured is short enough that the fingertip covers the sensor element in the housing.
- Keep your hand, finger and body steady during the measurement.
- For people with cardiac arrhythmia, the measurement values of SpOÿ and the heart rate may be incorrect or the measurement may not be possible at all.
- In cases of carbon monoxide poisoning, the pulse oximeter displays a measurement value that is too high.
- To avoid falsifying the measuring result, there should not be any strong light sources (e.g. fluorescent lamps or direct sunlight) in the immediate vicinity of the pulse oximeter. • People with low blood pressure, who suffer from jaundice or take medication for vascular contraction, may experience incorrect or falsified measurements.
- Incorrect measurements are likely for patients who have been administered medical dye in the past or for those who have abnormal haemoglobin levels. This applies in particular for cases of carbon monoxide poisoning and methaemoglobin poisoning, which can occur for example from the administration of local anaesthetics or from an existing methaemoglobin reductase deficiency.
- Protect the pulse oximeter from dust, shocks, moisture, extreme temperatures and explosive materials.

⚠ **Notes on handling batteries** • If your skin or eyes come into contact with battery fluid, flush out the affected areas with water and seek medical assistance.
- Choking hazard! Small children may swallow and choke on batteries. Store the batteries out of the reach of small children.
- Observe the plus (+) and minus (-) polarity signs.
- If a battery has leaked, put on protective gloves and clean the battery compartment with a dry cloth.
- Protect the batteries from excessive heat.
- ⚠ Risk of explosion! Never throw batteries into a fire.
- Do not charge or short-circuit batteries.
- If the device is not to be used for a long period, take the batteries out of the battery compart ment.
- Use identical or equivalent battery types only.
- Always replace all batteries at the same time.
- Do not use rechargeable batteries.
- Do not disassemble, split or crush the batteries.

6. Unit description



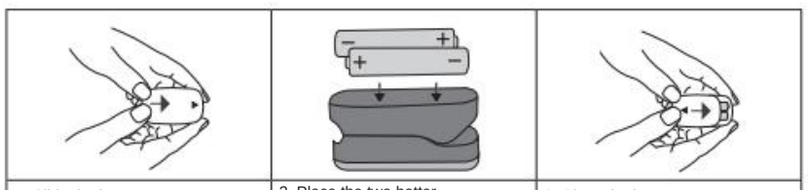
Display description



1. Oxygen saturation (value in percent)
2. Pulse rate (value in beats per minute)
3. Pulse wave (plethysmographic wave)
4. Pulse bar
5. Battery level indicator

7. Initial use

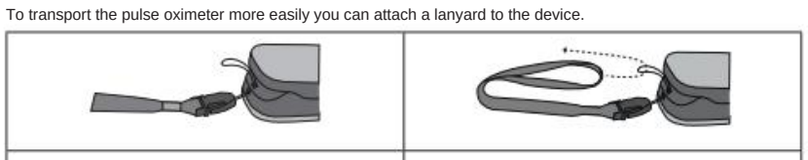
7.1 Inserting the batteries



1. Slide the battery compart ment lid open.	2. Place the two batter ies supplied in the pulse oximeter as shown. Ensure that the correct battery polarity is observed.	3. Close the battery compart ment lid again.

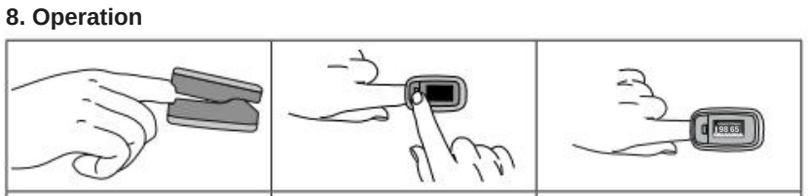
7.2 Attaching the lanyard

To transport the pulse oximeter more easily you can attach a lanyard to the device.



1. Insert the narrow end of the lanyard through the holder as shown.	2. Draw the other end of the lanyard through the loop at the narrow end and tighten.

8. Operation



1. Insert one finger into the finger opening of the pulse oximeter as shown and hold it steady.	2. Press the function button. The pulse oximeter begins its measurement. Do not move during the measure ment.	3. Your measurement values will appear on the screen after a few seconds.

ⓘ **Note**
When you remove your finger from the pulse oximeter, the device will automatically switch off after approx. five seconds.

Function button

The function button on the pulse oximeter has two functions in total:
- **Switch-on function:** When the pulse oximeter is switched off you can hold down the func tion button briefly to switch it on.
- **Brightness function:** To select your desired display brightness, hold down the function but ton for slightly longer during operation.

ⓘ **Note:**
The display orients automatically (vertical format, horizontal format). This ensures that the valu es are easy to read on the display at all times, regardless of how you hold the pulse oximeter.

9. Evaluating measurement results

⚠ WARNING

The following table for evaluating your measurements does NOT apply to people with certain pre-existing conditions (e.g. asthma, heart failure, respiratory diseases) or whilst staying at altitudes above 1500 metres. If you have a pre-existing condition, always consult your doctor to evaluate your measurements.

SpOÿ measurement (oxygen saturation) in %	Classification/measures to be taken
99-94	Normal range
93-90	Decreased range: visit to the doctor recommended
< 90	Critical range Seek medical attention urgently

Decline in oxygen saturation depending on altitude

ⓘ **Note**
The following table informs you of the effects of various altitudes on oxygen saturation value and its impact on the human body. The following table does NOT apply to people with certain pre-existing conditions (e.g. asthma, heart failure, respiratory diseases etc.). People with pre existing conditions can show signs of illness (e.g. hypoxia) at lower altitudes.

Altitude	Expected SpOÿ value (oxygen saturation) in %	Impact on human body
1500-2500 m	> 90	No altitude sickness (normally)
2500-3500 m	~90	Altitude sickness, acclimatisation recom mended
3500-5800 m	<90	Very frequent altitude sickness, acclimatisa tion absolutely essential
5800-7500 m	<80	Severe hypoxia, only limited length of stay possible
7500-8850 m	<70	Immediate, acute danger to life

Source: Hackett PH, Roach RC: High-Altitude Medicine. In: Auerbach PS (ed): Wilderness Medicine, 3rd edition; Mosby, St.Louis, MO 1995; 1-37.

10. Maintenance/cleaning

⚠ **IMPORTANT:**
Do not use high-pressure sterilisation on the pulse oximeter!
Under no circumstances should you hold the pulse oximeter under water, as this can cause liquid to enter and damage the pulse oximeter.
- Clean the housing and the interior rubber surface with a soft cloth dampened with medical alcohol after each use.
- If a low battery status appears on the display of the pulse oximeter, change the batteries.
- If you are not going to use the pulse oximeter for more than one month, remove both batter ies from the device to avoid possible leaking.

11. Storage

⚠ **IMPORTANT:**
Store the pulse oximeter in a dry place (relative humidity ÿ95%). If the humidity is too high it may shorten the service life of the pulse oximeter or damage it. Store the pulse oximeter in a place where the ambient temperature is between -40°C and 60°C.

12. Disposal

For environmental reasons, do not dispose of the device in the household waste at the end of its useful life. Dispose of the unit at a suitable local collection or recycling point.
Dispose of the device in accordance with EC Directive – WEEE (Waste Electrical and Electronic Equipment). If you have any questions, please contact the local authorities respon sible for waste disposal.

The empty, completely flat batteries must be disposed of through specially designated collection boxes, recycling points or electronics retailers. You are legally required to dispose of the batteries.

The codes below are printed on batteries containing harmful substances: Pb = Battery contains lead,
Cd = Battery contains cadmium, Hg =
Battery contains mercury.

Pb Cd Hg

13. What if there are problems?

Problem	Possible cause	Solution
The pulse oximeter is not displaying measurement values.	The batteries in the pulse oximeter are empty.	Replace the batteries.
	Batteries not inserted correctly.	Reinsert the batteries. If after reinserting the batteries correctly there are still no measurement values displayed, contact customer services.
The pulse oximeter is displaying measurement interruptions or high measurement value jumps.	Insufficient circulation in the measurement finger.	Observe the warnings and safety notes in chapterÿ5.
	Measurement finger is too large or too small.	Fingertip must have the following meas urements: Width between 10 and 22 mm Thickness between 5 and 15 mm
	Finger, hand or body is moving.	Keep your finger, hand and body still during the measurement.
	Cardiac arrhythmia	Seek medical attention.

14. Technical Data

Model no.	AFTER 30
Measurement method	Non-invasive measurement of arterial oxygen saturation of haemo globin and pulse rate in finger
Measurement range	SpOÿ 0 – 100%, Pulse 30 – 250 beats/minute
Accuracy	SpOÿ 70 –100%, ±2%, Pulse 30 – 250 bpm, ±2 beats/minute
Dimensions	L 61 mm x W 36 mm x H 32 mm
Weight	Approx. 58 g (including batteries)
Sensor to measure SpOÿ	Red light (wave length 660 nm); infra-red (wave length 880 nm); silicon receiver diode
Permissible operating conditions	+10°C to +40°C, <75 % relative humidity, 700–1060 hPa ambient pressure
Permissible storage conditions	-40°C to +60°C, ÿ95% relative humidity, 500–1060 hPa ambient pressure
Power supply	2x 1.5 V ⎓ AAA batteries
Battery life	2 AAA batteries last for approx. 2 years of operation at 3 measure ments per day (each of 60 seconds).
Classification	IP22, application part type BF

The serial number is located on the device or in the battery compartment.

Technical information is subject to change without notification to allow for updates.

- This device conforms with the European standards EN60601-1 and EN60601-1-2 (in ac cordance with CISPR 11, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-8) and is subject to particular precautions with regard to electromagnetic compatibility. Please note that portable and mobile HF communication systems may interfere with this device. For more details, please contact our Customer Services at the address indicated.
- This device complies with the EU Directive 93/42/EEC concerning medical devices, the Medizinproduktegesetz (German Medical Devices Act) and the DIN EN ISO 80601-2-61 standard (Medical electrical equipment – Particular requirements for the basic safety and essential performance of pulse oximeter equipment for medical use)

⚠ Notes on electromagnetic compatibility

- The device is suitable for use in all environments listed in these instructions for use, including domestic environments.
- The use of the device may be limited in the presence of electromagnetic disturbances. This could result in issues such as error messages or the failure of the display/device.
- Avoid using this device directly next to other devices or stacked on top of other devices, as this could lead to faulty operation. If, however, it is necessary to use the device in the manner stated, this device as well as the other devices must be monitored to ensure they are working properly.
- The use of accessories other than those specifed or provided by the manufacturer of this device can lead to an increase in electromagnetic emissions or a decrease in the device's electromagnetic immunity; this can result in faulty operation.
- Keep portable RF communication devices (including peripheral equipment, such as antenna cables or external antennas) at least 30 cm away from all device parts, including all cables in cluded in delivery. Failure to comply with the above can impair the performance of the device.
- Failure to comply with the above can impair the performance of the device.

15. Warranty/service

Beurer GmbH, Söflinger Straße 218, 89077 Ulm, Germany (hereinafter referred to as "Beu rer") provides a warranty for this product, subject to the requirements below and to the extent described as follows.

The warranty conditions below shall not affect the seller's statutory warranty obligations which ensue from the sales agreement with the buyer.
The warranty shall apply without prejudice to any mandatory statutory provisions on liability.

Beurer guarantees the perfect functionality and completeness of this product.

The worldwide warranty period is 5 years, commencing from the purchase of the new, unused product from the seller.

The warranty only applies to products purchased by the buyer as a consumer and used exclusi vely for personal purposes in the context of domestic use.
German law shall apply.

During the warranty period, should this product prove to be incomplete or defective in functio nality in accordance with the following provisions, Beurer shall carry out a repair or a replace ment delivery free of charge, in accordance with these warranty conditions.

If the buyer wishes to make a warranty claim, they should approach their local retailer in the first instance: see the attached "International Service" list of service addresses.

The buyer will then receive further information about the processing of the warranty claim, e.g. where they can send the product and what documentation is required.

A warranty claim shall only be considered if the buyer can provide Beurer, or an authorised Beurer partner, with - a copy of the invoice/purchase receipt, and - the original product.

The following are explicitly excluded from this warranty: -
deterioration due to normal use or consumption of the product;
- accessories supplied with this product which are worn out or used up through proper use (e.g. batteries, rechargeable batteries, cuffs, seals, electrodes, light sources, attachments and nebuliser accessories); - products that are used, cleaned, stored or maintained improperly and/or contrary to the

provisions of the instructions for use, as well as products that have been opened, repaired or modified by the buyer or by a service centre not authorised by Beurer; - damage that arises during transport between manufacturer and customer, or between service centre and customer;

- products purchased as seconds or as used goods;
- consequential damage arising from a fault in this product (however, in this case, claims may exist arising from product liability or other compulsory statutory liability provisions).

Repairs or an exchange in full do not extend the warranty period under any circumstances.

Subject to errors and changes