

# BM 81 easyLock



**EN** Upper arm blood pressure monitor Instructions for use



## **ENGLISH**



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.

#### Dear customer.

Thank you for choosing a product from our range. Our name stands for high-quality, thoroughly tested products for applications in the areas of heat, weight, blood pressure, body temperature, pulse, gentle therapy, massage, beauty, air and baby.

With kind regards Your Beurer team

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## 1. Included in delivery

Check that the exterior of the cardboard delivery packaging is intact and make sure that all contents are present. Before use, ensure that there is no visible damage to the device or accessories and that all packaging material has been removed. If you have any doubts, do not use the device and contact your retailer or the specified Customer Service address.

1x upper arm blood pressure monitor with integrated easyLock universal cuff (24 – 40 cm)

- 1x instructions for use
- 1x brief instructions
- 4x 1.5 V AAA LR03 batteries

## 2. Signs and symbols

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

A	WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
<u> </u>	CAUTION indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.
i	Product information Note on important information

<b>(3)</b>	Observe the instructions Read the instructions before starting work and/or operating devices or machines
<b>†</b>	Isolation of applied parts, type BF Galvanically isolated application part (F stands for "floating"); meets the requirements for leakage currents for type BF
===	Direct current The device is suitable for use with direct current only
	Disposal Disposal in accordance with EC Directive WEEE (Waste Electrical and Electronic Equipment)
Pb Cd Hg	Battery disposal Do not dispose of batteries containing hazardous substances with household waste
0	Separate the packaging elements and dispose of them in accordance with local regulations.
ZB)	Marking to identify the packaging material.  A = Material code, B = Material number:  1-7 = Plastics, 20-22 = Paper and cardboard
(F	Separate the product and packaging elements and dispose of them in accordance with local regulations.
•••	Manufacturer
1	Temperature limit The temperature limit values to which the medical device can safely be exposed are indicated.
<b>(X)</b>	Humidity, limit Indicates the humidity range to which the medical device can safely be exposed.
IP22	IP class Device protected against foreign objects ≥ 12.5 mm and against water dripping at an angle
SN	Serial number
LOT	Batch code
REF	Item number
MD	Medical device
<b>C</b> € <sub>0483</sub>	CE labelling This product satisfies the requirements of the applicable European and national directives

#### 3. Intended use

#### Intended use

The blood pressure monitor is intended for the fully automatic, non-invasive measurement of arterial blood pressure and pulse values on the upper arm.

#### Target group

It is designed for self-measurement by adults in the home environment and is suitable for users whose upper arm circumference is within the range printed on the cuff.

#### Indication/clinical benefits

The user can record their blood pressure and pulse values quickly and easily using the device. The recorded values are classified according to internationally applicable guidelines and evaluated graphically. Furthermore, the device can detect any irregular heart beats that occur during measurement and inform the user via a symbol in the display. The device saves the recorded measurements and can also output average values of previous measurements. The recorded data can provide healthcare service providers with support during the diagnosis and treatment of blood pressure problems, and therefore plays a part in the long-term monitoring of the user's health.

## 4. Warnings and safety notes

## **A** Contraindications

- Do not use the blood pressure monitor on newborns, children or pets.
- This device is not intended for use as an ambulatory blood pressure monitor for carrying out long-term measurements at predefined time intervals.
- People with restricted physical, sensory or mental skills should be supervised by a person responsible for their safety and receive instructions from this person on how to use the device.
- If you have any of the following conditions, it is essential you consult your doctor before using the device: cardiac arrhythmia, circulatory problems, diabetes, pregnancy, pre-eclampsia, hypotension, chills, shaking.
- People with pacemakers or other electrical implants should consult their doctor before using the device.
- The blood pressure monitor must not be used in connection with a high-frequency surgical unit.
- Do not use the cuff on people who have undergone a mastectomy.
- Do not place the cuff over wounds as this may cause further injury.
- Make sure that the cuff is not placed on an arm in which the arteries or veins are undergoing medical treatment, e.g. intravascular access or intravascular therapy, or an arteriovenous (AV) shunt.

## A General warnings

- The measured values taken by you are for your information only they are no substitute for a medical examination. Discuss the measured values with your doctor and never make your own medical decisions based on them (e.g. regarding dosages of medicines).
- The device is only intended for the purpose described in these instructions for use. The manufacturer is not liable for damage resulting from improper or incorrect use.
- Using the blood pressure monitor outside your home environment or whilst on the move (e.g. whilst travelling
  in a car, ambulance or helicopter, or whilst undertaking physical activity such as playing sport) can influence
  the measurement accuracy and cause incorrect measurements.
- Cardiovascular diseases may lead to incorrect measurements or have a detrimental effect on measurement accuracy.
- Do not use the device at the same time as other medical electrical devices (ME equipment). This could lead
  to a malfunction of the device and/or an inaccurate measurement.

- Do not use the device outside of the specified storage and operating conditions. This could lead to incorrect measurements.
- Only use the cuffs included in delivery or cuffs described in these instructions for use for the device. Using another cuff may lead to measurement inaccuracies.
- Please note that when inflating the cuff, the functions of the limb in question may be impaired.
- Do not perform measurements more frequently than necessary. Due to the restriction of blood flow, some bruising may occur.
- During the blood pressure measurement, the blood circulation must not be stopped for an unnecessarily long time. If the device malfunctions remove the cuff from the arm.
- Place the cuff on your upper arm only. Do not place the cuff on other parts of the body.
- Small parts may present a choking hazard for small children if swallowed. They should therefore always be supervised.



- The blood pressure monitor is made from precision and electronic components. The accuracy of the measurements and service life of the device depend on its careful handling.
- · Protect the device from impacts, humidity, dirt, marked temperature fluctuations and direct sunlight.
- Ensure the device is at room temperature before measuring. If the measuring device has been stored close to the maximum or minimum storage and transport temperatures and is placed in an environment with a temperature of 20 °C, it is recommended that you wait approx. 2 hours before using the measuring device.
- Do not drop the device.
- Do not use the device in the vicinity of strong electromagnetic fields and keep it away from radio systems or mobile telephones.
- We recommend that the batteries be removed if the device is not to be used for a prolonged period of time.
- The temperature of the cuff can reach up to 42.1 °C during normal operation at an ambient temperature of 40 °C.

## Measures for handling batteries



- If your skin or eyes come into contact with battery fluid, rinse the affected areas with water and seek medical assistance.
- Choking hazard! Small children may swallow and choke on batteries. Therefore, store batteries out of the reach of small children.
- Risk of explosion! Do not throw batteries into a fire.
- If a battery has leaked, put on protective gloves and clean the battery compartment with a dry cloth.
- Do not disassemble, open or crush the batteries.



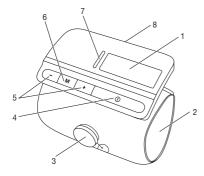
- Observe the plus (+) and minus (-) polarity signs.
- Protect the batteries from excessive heat.
  - Do not charge or short-circuit batteries.
  - If the device is not to be used for a relatively long period, take the batteries out of the battery compartment.
  - Use identical or equivalent battery types only.
  - Always replace all batteries at the same time.
  - Do not use rechargeable batteries!

# Notes on electromagnetic compatibility

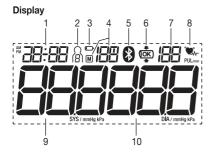
- The device is suitable for use in all environments listed in these instructions for use, including domestic
  environments.
- The use of the device may be limited in the presence of electromagnetic disturbances. This could result in issues such as error messages or the failure of the display/device.
- 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 specified 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.
- Failure to comply with the above can impair the performance of the device.

## 5. Device description

#### Blood pressure monitor and cuff



- 1. Display
- 2. Upper arm cuff
- 3. easyLock locking button
- 4. Start/stop button ①
- 5. Setting buttons +/-
- 6. Memory buttons M
- 7. LED risk indicator
- 8. Battery compartment lid

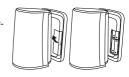


- 1. Date/time
- 2. User memory &
- 3. Battery replacement symbol
- 4. Number of memory space/memory display average value (२), morning (२०), evening (२०)
- 5. Symbol for Bluetooth® transfer 6
- 6. Cuff tightness indicator
- 7. Calculated pulse value incl. unit
- 8. Pulse symbol Cardiac arrhythmia symbol
- 9. Systolic pressure incl. unit
- 10. Diastolic pressure incl. unit

#### 6. Initial use

#### Inserting the batteries

- Remove the battery compartment lid on the rear of the device.
- Insert four 1.5V AAA (alkaline type LR03) batteries. Make sure that the batteries are inserted the correct way round.
- Close the battery compartment lid again carefully.
- All display elements are briefly displayed, 24 h flashes in the display. Set the date and time as described below.



If the battery replacement symbol is permanently displayed, you can no longer perform any measurements and must replace all batteries. Once the batteries have been removed from the device, the date and time must be set again. Any saved measurements are retained.

### Making settings

You must make sure that the device has the correct settings before use in order to be able to make full use of all functions. Only by doing so can your measurements with associated date and time be saved and accessed later by you.

- (i) There are two different ways to access the menu from which you can adjust the settings:
  - Before initial use and after each time you replace the battery:
     When inserting batteries into the device, you will be taken to the relevant menu automatically.
  - If the batteries have already been inserted:

Press and hold the memory button **M** on the device when **switched off** for approx. 5 seconds.

In this menu you can adjust the following settings in succession:



Hour format

The hour format now flashes on the display.

Using the +/- setting buttons, select your desired hour format and confirm with the M
memory button.

-24 h; -12 h;

The year flashes on the display.

 Using the +/- setting buttons, select your desired number for the year and confirm with the M memory button.

The month flashes on the display.

• Using the +/- setting buttons, select your desired month and confirm with the **M** memory button

The day flashes on the display.

- Using the +/- setting buttons, select your desired day and confirm with the M memory button.
- (i) If the hour format is set as 12h, the day/month display sequence is reversed.



-202 (-

The hour flashes on the display.

• Using the +/- setting buttons, select your desired number for the hour and confirm with the **M** memory button.



The minute flashes on the display.

• Using the +/- setting buttons, select your desired number for the minute and confirm with the **M** memory button.



The Bluetooth® symbol flashes on the display.

Using the +/- setting buttons, select whether automatic Bluetooth® data transfer is to be
activated or deactivated and confirm with the M memory button.



i Bluetooth® transfers will reduce the battery life.

The user memory symbol flashes in the display.

- Using the +/- setting buttons, select your desired user and confirm your selection with the M memory button.
- The device then switches off automatically.



## 7. Usage

Bluetooth® settings

User

## General rules when measuring blood pressure yourself

- In order to generate as informative a profile of the progression of your blood pressure as possible and ensure
  that the measured values can be compared, you should measure your blood pressure regularly and always
  at the same times of day. It is recommended that you measure your blood pressure twice a day: once in the
  morning after getting up and once in the evening.
- You should always carry out the measurement when you are sufficiently physically rested. You should therefore avoid taking measurements during stressful periods.
- Do not take a measurement within 30 minutes of eating, drinking, smoking or exercising.
- Before the initial blood pressure measurement, make sure always to rest for 5 minutes.
- Furthermore, if you want to take several measurements in succession, make sure always to wait for at least 1 minute between the individual measurements.
- Repeat the measurement if you are unsure of the measured value.

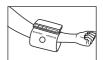
## Attaching the cuff

- Fundamentally, blood pressure can be measured on both arms. Certain deviations between the measured blood pressure on the right arm and left arm are due to physiological causes and completely normal. You should always perform the measurement on the arm with the highest blood pressure values. Before starting self-measurement, consult your doctor in this regard. From this point on, always take measurements on the same arm.
- The device may only be operated with one of the following cuffs. This should be selected in accordance
  with your upper arm circumference. The fit should be checked before measurement using the index mark
  described below.

Ref. no.	Designation	Arm circumference
164.290*	easyLock universal cuff	24-40 cm

<sup>\*</sup> Included in standard delivery

 Pass your bare upper arm through the tube-shaped cuff. The circulation of the arm must not be hindered by tight clothing or similar.



 The device must be placed on the upper arm so that the bottom edge is positioned approx. 2–3 cm above the elbow. Adjust the device so that the "ARTERY " mark is directly over the artery.



 Now press the easyLock locking button until it clicks into place to activate the locking mechanism.



 After it has clicked into place, you can adjust the cuff precisely by turning the easy-Lock locking button.



 The cuff should be fastened securely but not too tight – so that two fingers fit under the closed cuff.



 The easyLock cuff is suitable for you if parts of the index marking are still visible after attaching and adjusting the cuff and do not disappear in the cuff.



## **Cuff tightness indicator**

The device has a cuff tightness indicator function. Using this feature, the device automatically checks the correct positioning of the cuff on your upper arm during measurement. If the cuff is correctly positioned, the symbol  $\frac{d}{dt}$  will appear on the display during inflation. It will remain there until the measurement has been successfully completed and will then be displayed together with the determined measured values. In the event that the cuff has been positioned incorrectly, the measurement is cancelled and an error message appears in the display. In this case, please observe the information in the section "What if there are problems?".

#### Adopting the correct posture

- To carry out a blood pressure measurement, make sure you are sitting upright and comfortably. Lean back and place your arm on a surface. Do not cross your legs. Place your feet next to each other flat on the floor.
- Always make sure that the cuff is at heart level.
- To avoid distorting the measurement, you should remain as still as possible during the measurement and not speak.





## Selecting the user

This device has 2 user memories with 120 memory spaces each in order that you can save measurements from 2 different people separately from each other.

If multiple people are using the device, make sure that the relevant user is set before each measurement. To do so, proceed as follows:

- Press the setting button + or on the switched-off device. The last selected user appears on the display.
- Using the +/- setting buttons, set the desired user and confirm your selection with the Start/stop button ①. The device then switches off automatically.

## Performing the blood pressure measurement

• To start the blood pressure monitor, press the Start/stop button ①. All display elements are briefly displayed.



- The blood pressure monitor will begin the measurement automatically after approx. 3 seconds.
- The cuff inflates automatically while the actual measuring process starts. As soon as a pulse is found, the pulse symbol ♥ is displayed.
- (i) You can cancel the measurement at any time by pressing the Start/stop button ().
- The remaining air is released quickly once the measurement is complete.
- The systolic pressure, diastolic pressure and pulse measurements are displayed, and the LED risk indicator gives you a classification of your measured values using various colours.



 Er\_ appears if the measurement could not be performed properly. In this case, please read the section "What if there are problems?".



- If the Bluetooth® function has been activated, the data transfer to the "beurer HealthManager Pro" or "beurer HealthManager" app starts automatically after the measurement.
- The Bluetooth® symbol flashes on the display. The device now attempts to connect to the app for approx. 30 seconds.
- The Bluetooth® symbol stops flashing as soon as the connection is established. All measurement data
  is transferred to the apps. Once the data transfer is successfully complete, the device switches off
  automatically.

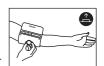
Measurement

- If a connection to the app cannot be established after 30 seconds, the Bluetooth® symbol goes out and the device switches off automatically after 1 minute.
- If you forget to turn off the device, it switches off automatically after approximately 1 minute. In this case too, the value is stored in the selected or most recently used user memory.

#### Unlocking the cuff and removing the device

After the measurement has been taken successfully, you can take off the device again. To do so, proceed as follows:

- Pull the easyLock locking button upwards with your fingers to unlock the cuff.
- You can now slightly expand the tube-shaped cuff and then remove it from your upper arm.



#### Transfer of measurements via Bluetooth®

In addition to displaying and saving your measurements locally on the device, you have the option of transferring your measurements to your smartphone using Bluetooth® low energy technology.

For this you need the "beurer HealthManager Pro" or "beurer HealthManager" app. These apps are available for free in the Apple App Store and from Google Play.

## System requirements:

- iOS ≥ 12.0. Android<sup>TM</sup> ≥ 8.0
- Bluetooth® >4.0

List of compatible devices:



## To transfer the measured values, proceed as follows:



#### Step 1: **BM 81**

Activate the Bluetooth® function on your device as described in section "Setting the hour format, date, time and Bluetooth®".







In the "beurer HealthManager Pro" or "beurer HealthManager" app, add the BM 81 under Settings / Devices and follow the instructions.



**BM 81** Step 3:

Take a measurement.





#### Step 4: BM 81

(Data transfer immediately following the measurement): If the Bluetooth® function has been activated, the data transfer to the "beurer HealthManager Pro" or the "beurer HealthManager" app starts automatically after the measurement.

#### Step 4: BM 81

(Data transfer at a later point in time): Go into the memory recall mode for the desired user memory (see "Saving, accessing and deleting measured values"). The data transfer starts automatically.

(i) Also note the following information:

- When connecting for the first time, a randomly generated six-digit PIN code is displayed on the device, and
  at the same time an input field appears on the smartphone in which you must enter this six-digit PIN code.
  After successfully entering the code, the device will be connected to your smartphone.
- Ensure that the "beurer HealthManager Pro" or "beurer HealthManager" app on your smartphone is always activated and open when you start the data transfer on the device.
- You can tell that the data transfer is in progress by the *Bluetooth*® symbol shown on the display.
- If your smartphone has a protective cover, remove it to ensure that there is no interference during the transfer.

#### Evaluating the results

#### General information about blood pressure

- Blood pressure is the force with which the bloodstream presses against the arterial walls. Arterial blood
  pressure constantly changes in the course of a cardiac cycle.
- Blood pressure is always stated in the form of two values:
  - The highest pressure in the cycle is called systolic blood pressure. This arises when the heart muscle contracts and blood is pumped into the blood vessels.
  - The lowest is diastolic blood pressure, which is when the heart muscle has completely stretched back out and the heart fills with blood.
- Fluctuations in blood pressure are normal. Even during repeat measurements, considerable differences between the measured values may occur. One-off or irregular measurements therefore do not provide reliable
  information about the actual blood pressure. Reliable assessment is only possible when you perform the
  measurement regularly under comparable conditions.

## Cardiac arrhythmia

This device can identify any cardiac rhythm disturbances as part of the analysis of your recorded pulse signal during blood pressure measurement. In this case, after the measurement, the device will indicate any irregularities in your pulse by displaying the symbol in the display. This can be an indicator for arrhythmia. Arrhythmia is an illness in which the heart rhythm is abnormal because of flaws in the bioelectrical system that regulates the heartbeat. The symptoms (skipped or premature heart beats, pulse being slow or too fast) can be caused by factors such as heart disease, age, physical disposition, excess alcohol and tobacco, stress or lack of sleep. If the symbol appears on the display after the measurement, the measurement must be repeated as the measurement accuracy may be impaired. To assess your blood pressure, only use the results that have been recorded without corresponding irregularities in your pulse. If the symbol appears frequently, please consult your doctor. Only they can establish the existence of an arrhythmia during a checkup, using their means of diagnosis.

#### LED risk indicator

The World Health Organization (WHO) has defined the internationally recognised classification for the evaluation of measured blood pressure values listed in the table below:

Measured blood pressure value range		Oleanification	Colour of the LED
Systole (in mmHg)	Diastole (in mmHg)	Classification	risk indicator
≥180	≥110	High blood pressure stage 3 (severe)	Red
160-179	100-109	High blood pressure stage 2 (moderate)	Orange
140-159	90-99	High blood pressure stage 1 (mild)	Yellow
130-139	85-89	High normal	Green
120-129	80-84	Normal	Green
<120	<80	Optimal	Green

Source: WHO, 1999 (World Health Organization)

The LED risk indicator (coloured LED on the device to the left of the display) shows which category the recorded blood pressure falls into. If the measured values are in two different classifications (e.g. systole in the high normal category and diastole in the normal category), the risk indicator then always shows you the higher category – "high normal" in the example described.

Please be aware that these standard values can only serve as a general guideline, as the individual blood pressure varies in different people and different age groups, etc.

Furthermore, it must be noted that measurements taken yourself while at home are generally lower than those that are taken by the doctor. For this reason, it is important that you regularly consult your doctor for advice. Only they are able to give you your personal target values for controlled blood pressure – in particular if you receive medicinal therapy.

## Displaying and deleting measurements

User memory

Average values

The results of every successful measurement are stored together with the date and time. If there are more than 120 measurements, the oldest measurements are lost.

- First select the desired user memory that you want to view the data for as described in the chapter on selecting a user.
- Then press the memory button **M** on the switched-off device.

**R** flashes on the display.

The average value of all saved measured values in this user memory is displayed.



• Press the memory button M.

Rn flashes on the display.

The average value of the morning measurements for the last 7 days is displayed (morning: 5.00 a.m. – 9.00 a.m.).



Press the memory button M.

Pf flashes on the display.

The average value of the evening measurements for the last 7 days is displayed (evening: 6.00 p.m. – 08.00 p.m.).



Deleting measured values

 When you press the memory button M again, the last individual measurement is displayed (in this example, measurement 03).



- ullet When the memory button  ${f M}$  is pressed again, you can view your individual measured values.
- To switch the device off again, press the Start/stop button ① or wait 30 sec.
- (i) You can exit the menu at any time by pressing the Start/stop button (1).
- In order to delete all saved measurements from a user, first select it as described.
- R flashes on the display and the average value of all saved measured values in this user memory is displayed.
- Press and hold both setting buttons + and at the same time for approx. 5 seconds.
- CL 00 appears on the display. All the values in the current user memory are deleted. The device then switches off automatically.



## 8. Cleaning and maintenance

- Clean the device and cuff carefully using a slightly damp cloth only.
- Do not use any cleaning agents or solvents.
- Under no circumstances hold the device and cuff under water, as this can cause liquid to enter and damage the device and cuff.
- If you store the device and cuff, do not place heavy objects on the device and cuff. Remove the batteries.

## 9. What if there are problems?

Error message	Possible cause	Solution	
Erl	Unable to record a pulse.	Please wait one minute and repeat the measurement.	
ErZ	You moved or spoke during the measurement.	Ensure that you do not speak or move during the measurement.	
Er3 📥	The cuff is not attached correctly.	Please observe the information in chapter "Attaching the cuff" and take another measurement after one minute.	
Er4	The measured values are outside the specified measurement range.	Please wait one minute and repeat the measurement. Ensure that you do not speak or move during the mea-	
	An error occurred during the measurement.	surement.  If the error occurs repeatedly, consult a doctor to check you are healthy.	

Error message	Possible cause	Solution
Er5	The inflation pressure is higher than 300 mmHg.	Please take another measurement to check whether the cuff can be correctly inflated.  Make sure that neither your arm nor other heavy objects are pressing on the line, and that the line is not bent.
ErB 👝	The batteries are almost empty.	Insert new batteries into the device.
Er7 🚯	Unable to transfer the data via Bluetooth®.	Please observe the information in chapter "Transfer of measurements via <i>Bluetooth</i> ®".

## 10. Disposal



## Repairing and disposing of the device

- Do not repair or adjust the device yourself. Proper operation can no longer be guaranteed in this case.
- Do not open the device. Failure to comply will invalidate the warranty.
- Repairs must only be carried out by Customer Services or authorised retailers. Before making a claim, please check the batteries first and replace them if necessary.
- For environmental reasons, do not dispose of the device in household waste at the end of its service life. Dispose of the device at a suitable local collection or recycling point in your country. 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 responsible for waste disposal.

# Disposing of the batteries

- 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.



# 11. Specifications

Туре	BM 81
Measurement method	Oscillometric, non-invasive blood pressure measurement on the upper arm
Measurement range	Cuff pressure 0-300 mmHg, systolic 50-250 mmHg, diastolic 30-200 mmHg, Pulse 40-180 beats/minute
Display accuracy	Systolic $\pm 3$ mmHg, diastolic $\pm 3$ mmHg, pulse $\pm 5\%$ of the value shown

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Measurement inaccuracy	Max. permissible standard deviation according to clinical testing: systolic 8 mmHg/diastolic 8 mmHg
Memory	2 x 120 memory spaces
Dimensions	L 143 mm x W 91 mm x H 22 mm
Weight	Approx. 280 g (without batteries, with cuff)
Cuff size	24 to 40 cm
Permissible operating conditions	$+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$ , $15\%$ – $90\%$ relative air humidity (non-condensing), $700$ –1060 hPa ambient pressure
Permissible storage and transport conditions	-25 °C to +70 °C, ≤ 90 % relative air humidity, 700–1060 hPa ambient pressure
Power supply	4x 1,5V — — AAA batteries
Battery life	For approx. 300 measurements, depending on the blood pressure level and/or pump pressure
Expected service life	at least 10.000 measurements
Classification	Internal supply, IP22, no AP or APG, continuous operation, application part type BF
Data transfer via <i>Bluetooth®</i> wireless technology	The blood pressure monitor uses <i>Bluetooth</i> ® low energy technology, 2402MHz – 2480MHz frequency band, Transmission power max. 4 dBm, Compatible with <i>Bluetooth</i> ® 4.0 smartphones/tablets

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 unit is in line with European Standard EN 60601-1-2 (in accordance 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 (EEC). Please note that portable and mobile HF communication systems may interfere with this unit.
- This device is in line with the EU Medical Devices Directive 93/42/EEC, the "Medizinproduktegesetz" (German Medical Devices Act) and the standards EN 1060-3 (non-invasive sphygmomanometers, Part 3: Supplementary requirements for electro-mechanical blood pressure measuring systems) and IEC 80601-2-30 (Medical electrical equipment Part 2–30: Particular requirements for the safety and essential performance of automated non-invasive blood pressure monitors).
- The accuracy of this blood pressure monitor has been carefully checked and developed with regard to
  a long useful life. If using the device for commercial medical purposes, it must be regularly tested for
  accuracy by appropriate means. Precise instructions for checking accuracy may be requested from the
  service address.
- We hereby confirm that this product complies with the European RED Directive 2014/53/EU.
   The CE Declaration of Conformity for this product can be found under:
   www.beurer.com/web/we-landingpages/de/cedeclarationofconformity.php

## 12. Warranty/service

Further information on the guarantee and guarantee conditions can be found in the guarantee leaflet supplied.

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