

# EN

INSTRUCTIONS  
INSERTION THERMOMETER



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**Notes regarding the instructions**

**Symbols**



**Warning of electrical voltage**

This symbol indicates dangers to the life and health of persons due to electrical voltage.



**Warning**

This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.



**Caution**

This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.

**Note**

This signal word indicates important information (e.g. material damage), but does not indicate hazards.



**Info**

Information marked with this symbol helps you to carry out your tasks quickly and safely.



**Follow the manual**

Information marked with this symbol indicates that the instructions must be observed.

You can download the current version of the instructions and the EU declaration of conformity via the following link:



BT20



<https://hub.trotec.com/?id=43281>

**Safety**

**Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.**



**Warning**

**Read all safety warnings and all instructions.**

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

**Save all warnings and instructions for future reference.**

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in aggressive atmosphere.
- Protect the device from permanent direct sunlight.
- Do not open the device.
- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Never charge batteries that cannot be recharged.
- Different types of batteries and new and used batteries must not be used together.
- Insert the batteries into the battery compartment according to the correct polarity.
- Remove discharged batteries from the device. Batteries contain materials hazardous to the environment. Dispose of the batteries according to the national regulations.
- Remove the batteries from the device if you will not be using the device for a longer period of time.
- Never short-circuit the supply terminal in the battery compartment!
- Do not swallow batteries! If a battery is swallowed, it can cause severe internal burns within 2 hours! These burns can lead to death!
- If you think batteries might have been swallowed or otherwise entered the body, seek medical attention immediately!
- Keep new and used batteries and an open battery compartment away from children.
- Observe the storage and operating conditions (see Technical data).

## Intended use

Only use the device for temperature measurements by means of the temperature probe within the measuring range specified in the technical data.

To use the device for its intended use, only use accessories and spare parts which have been approved by Trotec.

Any use other than the intended use is regarded as misuse.

## Reasonably foreseeable misuse

This device is not suited for measuring the body temperature in humans or animals. The device must not be pointed at people. Do not use the device in potentially explosive atmospheres, for measurements in liquids or at live parts. Trotec accepts no liability for damages resulting from improper use. In such a case, any warranty claims will be voided. Any unauthorised modifications, alterations or structural changes to the device are forbidden.

## Personnel qualifications

People who use this device must:

- be aware of the dangers that occur when handling food at high temperatures, e.g. frying or grilling.
- have read and understood the instructions, especially the Safety chapter.

## Residual risks



### Warning of electrical voltage

There is a risk of a short-circuit due to liquids penetrating the housing!

Do not immerse the device and the accessories in water. Make sure that no water or other liquids can enter the housing.



### Warning of electrical voltage

Work on the electrical components must only be carried out by an authorised specialist company!



### Warning

Handling the penetration probe involves a risk of injury. When the penetration probe is unprotected, be aware of possible hazards and put the protective cover back on the penetration probe immediately after use.



### Warning

Risk of suffocation!  
Do not leave the packaging lying around. Children may use it as a dangerous toy.



### Warning

The device is not a toy and does not belong in the hands of children.



### Warning

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way! Observe the personnel qualifications!



### Caution

Keep a sufficient distance from heat sources.

### Note

To prevent damages to the device, do not expose it to extreme temperatures, extreme humidity or moisture.

### Note

Do not use abrasive cleaners or solvents to clean the device.

## Information about the device

### Device description

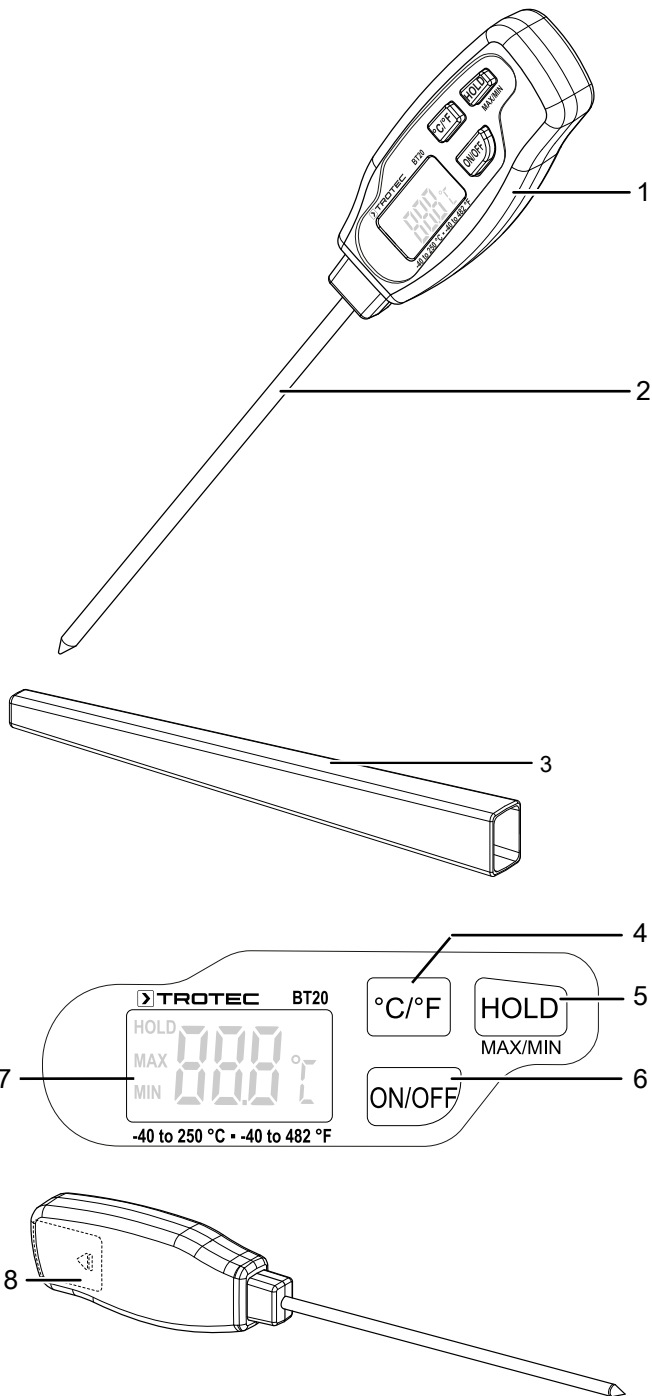
The device BT20 is a contact thermometer for core temperature measurements.

The wide measuring range of  $-40\text{ °C}$  to  $+250\text{ °C}$  renders it suitable for manifold measuring applications in the industry as well as in the craft and hobby sector.

The device comes equipped with a long, thin stainless steel measuring tip permitting core temperature measurements within 2 seconds.

Owing to a soft-touch protective cover the plastic housing is additionally protected from dirt and external influences such as splashing water.

**Device depiction**



No.	Designation
1	Housing
2	Penetration probe
3	Protective cover
4	°C/°F button
5	HOLD button
6	ON/OFF button
7	Display
8	Battery compartment

**Technical data**

Parameter	Value
Model	BT20
Article number	3.510.250.001
Weight (packaging excluded)	40 g
Dimensions (length x width x height)	211 mm x 19 mm x 32 mm
<b>Temperature</b>	
Measuring range	-40 °C to +250 °C or -40 °F to 482 °F
Accuracy	±2 °C or ±3.8 °F
Measuring range resolution	0.1 °C or 0.1 °F
Response time	2 s
<b>Power supply</b>	
Battery (internal)	1 x 1.5 V, LR44

**Scope of delivery**

- 1 x Device BT20
- 1 x LR44 battery
- 1 x Quick guide
- 1 x Protective cover

**Transport and storage**

**Note**

If you store or transport the device improperly, the device may be damaged.  
Note the information regarding transport and storage of the device.

**Transport**

For transporting the device use a suitable bag to protect it from external influences.

**Storage**

When the device is not being used, observe the following storage conditions:

- dry and protected from frost and heat
- protected from dust and direct sunlight
- the storage temperature complies with the values specified in the Technical data
- Batteries are removed from the device

## Operation

### Start-up

- ✓ Remove the protective cover (3) before you use the device.
- 1. Press the *ON/OFF* button (5).
  - ⇒ The display will be switched on and the device ready for operation.
- 2. Put the insertion rod at least halfway into the material to be tested.
  - ⇒ The current temperature will be indicated on the display (4).

### Switching between °C and °F indication

Press the *°C/°F* button (7) to change the temperature unit.

### Holding the temperature value

1. Press the *HOLD* button (6) once.
  - ⇒ The indication *HOLD* appears on the display (4).
  - ⇒ The previously measured temperature value is permanently shown on the display.
2. To indicate the current temperature, press the *HOLD* button (6) three times.

### Indication of maximum and minimum value

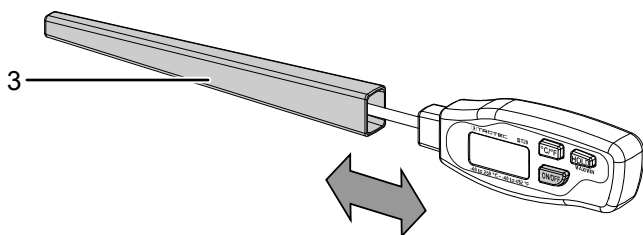
1. To call up the maximum temperature, press the *HOLD* button (6) twice.
  - ⇒ The indication *MAX* appears on the display (4).
  - ⇒ The highest measured temperature value is shown on the display.
2. Press the *HOLD* button (6) again to call up the minimum temperature.
  - ⇒ The indication *MIN* appears on the display.
  - ⇒ The lowest measured temperature value is shown on the display.
3. Press the *HOLD* button (6) again to display the currently temperature value.

### Switch-off

The device switches off automatically after approx. 20 minutes so as to save the batteries.

To switch off the device manually, press the *ON/OFF* button (5).

Put the protective cover back onto the device.



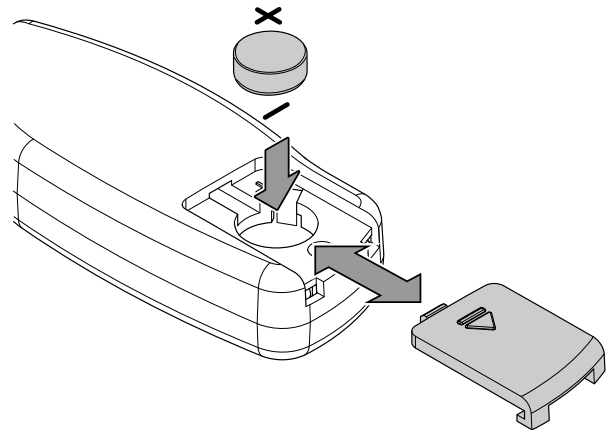
## Maintenance and repair

### Battery change

A battery change is required, when the displayed values are difficult to read or the device can no longer be switched on.

In order to exchange the battery, remove the housing's protective cover.

Open the cover of the battery compartment (8). Remove the old battery. Insert a new battery.



### Cleaning

Clean the device with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing. Do not use any sprays, solvents, alcohol-based cleaning agents or abrasive cleaners, but only clean water to moisten the cloth.

The device and its components are **not** dishwasher-safe.

### Repair

Do not modify the device or install any spare parts. For repairs or device testing, contact the manufacturer.

## Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.



The icon with the crossed-out waste bin on waste electrical or electronic equipment is taken from Directive 2012/19/EU. It states that this device must not be disposed of with the household waste at the end of its life. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website <https://hub.trotec.com/?id=45090>. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.



In the European Union, batteries and accumulators must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators. Please dispose of batteries and accumulators according to the relevant legal requirements.

### Only for United Kingdom

According to Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) and the Waste Batteries and Accumulators Regulations 2009 (SI 2009/890) (as amended), devices that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

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