



EN

INSTRUCTIONS
FOOD THERMOMETER

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Information on the use of these 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.

Notice
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:



BP5F



<https://hub.trotec.com/?id=41866>

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 an 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.
- Use batteries of type 6LR61 (9 V battery).
- 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. 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 food temperature measurements by means of the infrared sensor or temperature probe within the measuring range specified in the technical data.

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.

Any unauthorised changes, modifications or alterations to the device are forbidden.

Personnel qualification

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 folded out, be mindful of potential hazards and make sure to fold the penetration probe back in immediately after each 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.

Notice

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

Notice

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

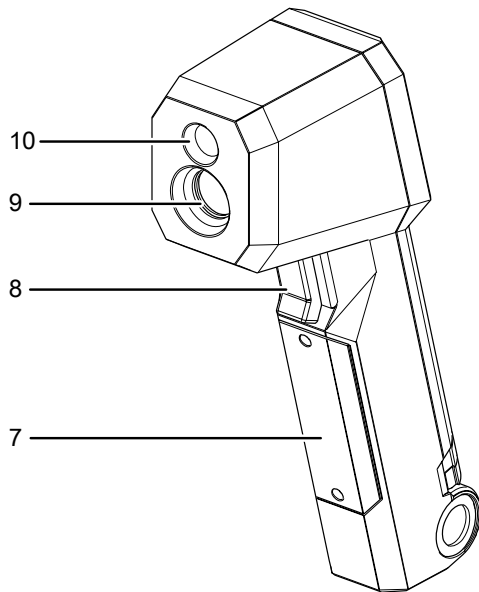
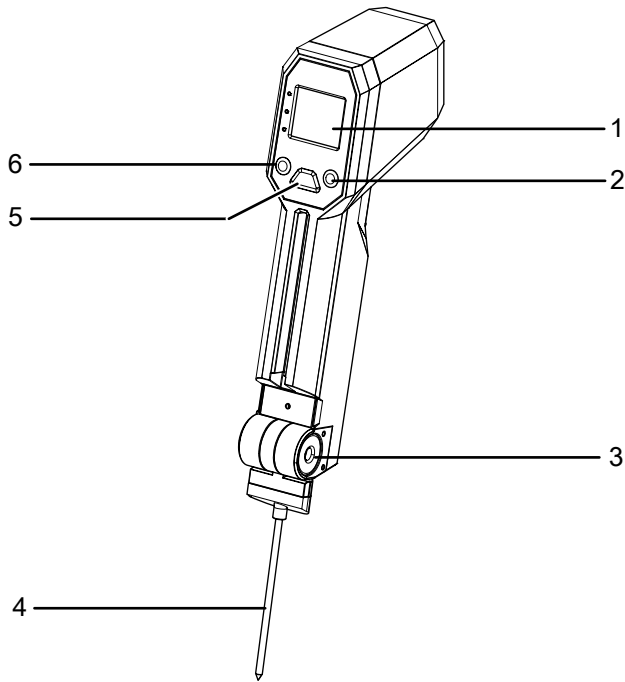
Information about the device

Device description

The device BP5F is a thermometer intended for temperature measurements in food, which are carried out by means of an infrared sensor or temperature probe in accordance with the HACCP standard (Hazard Analysis and Critical Control Points).

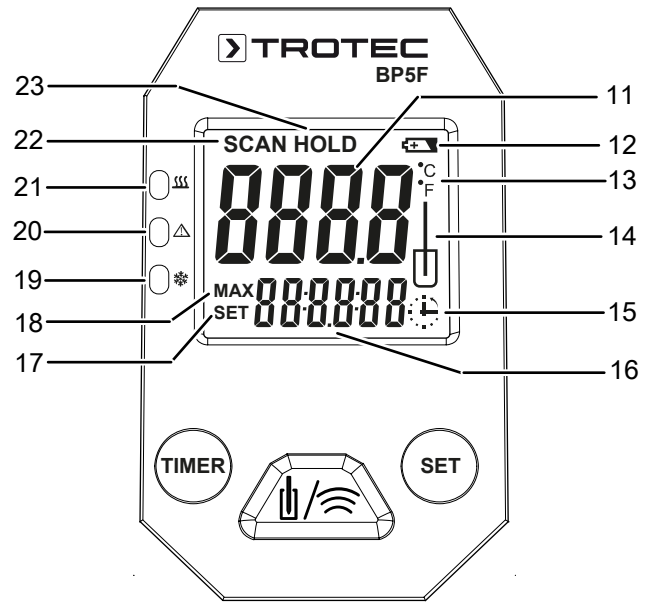
According to the HACCP directive, complying with the temperature ranges below 4 °C and above 60 °C is an important way of preventing the development and reproduction of harmful microorganisms. On the other hand, temperatures between 4 °C and 60 °C can promote the development of germs. To quickly show whether or not these temperature limits are complied with, the food thermometer BP5F shows three LEDs beside the digital temperature display which indicate the corresponding temperature range.

Device depiction



No.	Designation
1	Display
2	SET button
3	Temperature probe lock
4	Temperature probe
5	MEAS button
6	TIMER button
7	Battery compartment cover
8	Measurement button
9	Infrared sensor
10	LED

Display



No.	Designation	Function
11	Measurement value display	Current measured value/held measured value
12	Battery status indication	Battery must be replaced.
13	Temperature unit indication	Measured value is displayed in °C or °F.
14	Temperature probe indication	Measurement using the temperature probe is active.
15	Timer function indication	Timer function active.
16	Segment display	- Maximum value of the last measurement - Time for the timer function
17	SET indication	Timer active setting.
18	MAX indication	Maximum value is displayed.
19	Green LED Cold	Temperature below 4 °C (40 °F)
20	Red LED Warning	Temperature between 4 °C and 60 °C (40 °F and 140 °F)
21	Green LED Hot	Temperature above 60 °C (140 °F)
22	SCAN indication	Measurement in progress.
23	HOLD indication	Measured value is held.

Technical data

Parameter	Value
Model	BP5F
Article number	3.510.003.020
Weight	180 g
Dimensions (length x width x height)	185 mm x 50 mm x 67 mm
Temperature	
Measuring range	-40 °C to +200 °C (-40 °F to 392 °F)
Accuracy	below -5 °C (23 °F): +1 °C (1.8 °F) between -5 °C and 65 °C (23 °F and 150 °F): +1 °C (1.8 °F) above 65 °C (150 °F): +1 %
Infrared	
Measuring range	-40 °C to +280 °C (-40 °F to 536 °F)
Accuracy	below -40 °C to 4 °C (-40 °F to 39.2 °F): +2 °C (3.6 °F) between 4 °C and 65 °C (39.2 °F and 150 °F): +1 °C (1.8 °F) above 65 °C (150 °F): +1.5 %
Reaction time	< 500 ms
Type of protection	IP65
Emissivity	0.95
Distance to measuring spot diameter ratio	20:1
Automatic switch-off	after approx. 20 seconds
Power supply	9 V battery

Scope of delivery

- 1 x Device BP5F (without batteries)
- 1 x Quick guide

Transport and storage

Notice

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
- at the temperature specified in the technical data
- Batteries are removed from the device

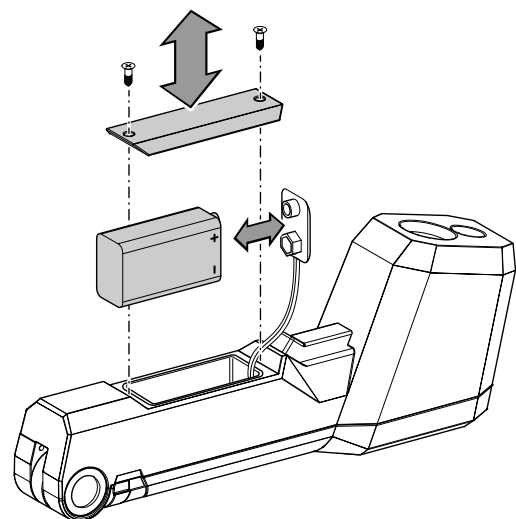
Operation

Inserting the battery

Notice

Make sure that the surface of the device is dry and the device is switched off.

1. Open the battery compartment by unscrewing the two screws with a suitable screwdriver.
2. Remove the battery compartment cover (7).
3. Insert the battery into the battery compartment with correct polarity.
4. Fit the battery compartment cover back on the device and tighten the screws.



Switching the device on and selecting the measuring mode

Notice

Note that moving from a cold area to a warm area can lead to condensation forming on the device's circuit board. This physical and unavoidable effect can falsify the measurement. In this case, the display shows either no measured values or they are incorrect. Wait a few minutes until the device has become adjusted to the changed conditions before carrying out a measurement.

1. Press any button.
 - ⇒ The device is switched on.
2. Press the *MEAS* button (5) to switch between measurement with infrared and measurement with temperature probe.
 - ⇒ If the *Temperature probe* indication (14) appears on the display, this measuring mode is selected.
 - ⇒ If the symbol is not displayed, the infrared measuring mode is selected.

Measuring with infrared



Info

Vapours and smoke can influence the measurement.



Info

Ensure that the surface to be measured is free of dust, dirt, ice or similar substances.



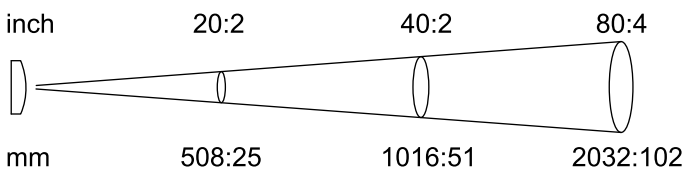
Info

To be able to gain exact measurement results on surfaces which reflect heavily, stick matt masking tape to the surface or apply matt black paint with a very high and known emissivity.



Info

Note the 20:1 ratio of the distance to the measuring spot diameter. The larger the distance to the object, the larger the measuring spot diameter and hence, the less precise the measured result.



1. Switch the device on and select the infrared measuring mode.
2. Point the device at the object to be measured and hold down the measurement button (8).
 - ⇒ The *SCAN* indication (22) appears on the display. The device performs a measurement.
 - ⇒ The current measured value is displayed in the measurement value display (10).

3. Release the measurement button (8).
 - ⇒ The *HOLD* indication (21) appears on the display. The device stops measuring.
 - ⇒ The last measured value is displayed in the measurement value display (10).

Measuring with temperature probe

Notice

The temperature probe is not suitable as an ice pick and should never be pricked into frozen objects forcefully to prevent damages to the device.

1. Press the temperature probe lock (3) and fold out the temperature probe (4).
2. Insert the temperature probe (4) into the object to be measured by approx. 1 cm.
3. Select the temperature probe measuring mode.
4. Press the *MEAS* button (5).
 - ⇒ The current measured value is displayed in the measurement value display (10).

Maximum value

When measuring with infrared, the highest measured value since the beginning of the measurement is displayed by default. This function cannot be switched off.

The maximum value is not displayed when measuring with a temperature probe.

1. Carry out a measurement with infrared.
 - ⇒ The maximum value is shown on the segment display (16).
 - ⇒ The *MAX* indication (18) is shown on the display.

Setting the timer

Please proceed as follows to set the timer:

1. Press the *TIMER* button (6) to open the timer menu.
 - ⇒ The time of the timer function is shown on the segment display (16).
 - ⇒ The *SET* indication (17) appears on the display.
2. Press and hold the *TIMER* button (6) for 2 seconds to switch between seconds, minutes and hours.
 - ⇒ The currently selected time format flashes on the segment display (16).
3. Press and hold the *SET* button (2) to set the corresponding value.
4. Press the measurement button (8) to start the timer.
 - ⇒ The timer starts and remains active in the background, even if you switch to another menu or the device turns off because of non-use.
 - ⇒ After the set time has passed, an acoustic signal is emitted for 30 seconds. Press any button to switch off the acoustic signal.

Changing the temperature unit

The default setting for the temperature unit is °C.

Please proceed as follows to change the temperature unit at the device:

1. Press the *SET* button (2) to change the unit.
 - ⇒ The *Temperature unit* indication (13) displays the currently selected unit (°C or °F).

Switch-off

The device switches off after approx. 20 seconds of non-use.

Maintenance and repair

Battery change

A battery change is required when the *Battery status* indication (12) lights up or the device can no longer be switched on. See chapter Operation.

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.

Repair

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

Errors and faults

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

Display segments are only faintly visible or flicker:

- Check the charging status of the battery. Change the battery, if required (see chapter Inserting the battery).
- Make sure that the battery is properly positioned. Check the polarity is correct.

The device displays implausible measured values:

- Check the charging status of the battery. Change the battery, if required (see chapter Inserting the battery).
- Make sure that the battery is properly positioned. Check the polarity is correct.

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.

Trotec GmbH

Grebener Str. 7
D-52525 Heinsberg

☎ +49 2452 962-400

☎ +49 2452 962-200

✉ info@trotec.com

www.trotec.com