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BEDIENUNGSANLEITUNG
OPERATING MANUAL
MANUEL D'UTILISATION





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# Notes regarding the operating manual

## **Symbols**



#### Danger!

Warns of a hazard which can lead to injuries.



#### Caution!

Warns of a hazard which can lead to damage to property.

### Legal notice

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# **Safety**

#### Intended use

This device is exclusively intended for measuring temperature with an infrared sensor or temperature probe in the measuring range specified in the technical data. People who use this device must have read and understood the operating manual, especially the "Safety" chapter.

## Improper use

The device must not be pointed at people.

Trotec accepts no liability for damages resulting from improper use. In such a case, entitlements to a warranty are forfeited.



## Danger!

Keep a sufficient distance away from sources of heat!



#### Caution!

- Do not use abrasive cleaners or solvents to clean the device.
- Do not leave the packaging lying around. Children may use it as a dangerous toy.
- The device is not a toy and does not belong in the hands of children.

### **Technical data**

Model BP5F Weight 180 q

Dimensions H x W x D 185 x 50 x 67 mm

Type of protection IP65

Temperature probe measuring range  $-40 \, ^{\circ}\text{C}$  to  $+200 \, ^{\circ}\text{C}$  (-40  $^{\circ}\text{F}$  to 392  $^{\circ}\text{F}$ )

Infrared measuring range  $-40 \,^{\circ}\text{C}$  to  $280 \,^{\circ}\text{C}$  ( $-40 \,^{\circ}\text{F}$  to  $536 \,^{\circ}\text{F}$ )
Temperature probe accuracy below  $-5 \,^{\circ}\text{C}$  ( $23 \,^{\circ}\text{F}$ ):  $+1 \,^{\circ}\text{C}$  ( $1.8 \,^{\circ}\text{F}$ )

between -5 °C and 65 °C (23 °F and 150 °F): +1 °C (1.8 °F)

above 65 °C (150 °F): +1 %

Infrared accuracy below -40 °C to 4 °C (-40 °F bis 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 %

Emissivity 0.95

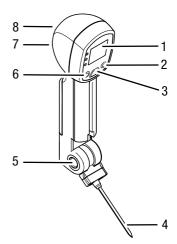
Distance to measuring spot ratio \$20:1\$ Reaction time  $$<500~\rm{ms}$$ 

Power supply 9 V battery

Switch off After approx. 20 seconds of non-use

# **Description of the device**

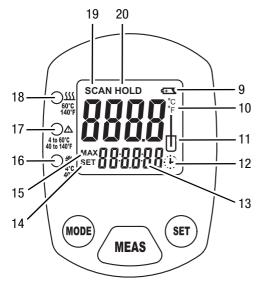
The food thermometer BP5F detects the surface and inside temperature of foods by using an infrared sensor and a temperature probe. Beside the digital temperature display, three LEDs show whether the detected temperature is within the HACCP range (Hazard Analysis and Critical Control Points). According 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 guickly show whether or not the safe temperature range is complied with, the food thermometer BP5F shows three LEDs beside the digital temperature display which indicate the corresponding temperature range.



- . Display
- 3. "MEAS" button
- Lock temperature probe
- 7. IR sensor

- . "SET" button
- 4. Temperature probe
- . "MODE" button
- 8. LFD

## **Display**



- 9. Battery indicator
- 10. Unit of the temperature
- 11. Measurement using the temperature probe
- 12. Timer function
- Maximum or minimum value from the last measurement

or

Time for the timer function

- 14. Set time for the timer function
- 15. Display of the maximum value
- 16. Green LED. Temperature above 60 °C (140 °F)
- Red LED. Temperature between 4 °C and 60 °C (40 °F and 140 °F)
- 18. Green LED. Temperature below 4 °C (40 °F)
- 19. Measurement is on
- 20. Display is frozen

# **Operation**

## **Temperature measurement**

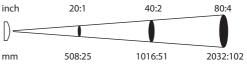
- 1. Press any button to switch on the device.
- Press the "MODE" button (6) to switch between measurement with infrared, the temperature probe and the timer function.

The symbols (11, 12) indicate which measurement type is selected.

#### Infrared

- Vapours and smoke can influence the measurement.
- Ensure that the surface to be measured is free of dust, dirt, ice or similar substances.
- 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 level of emissivity.

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



- Point the device at the object to be measured and hold down the "MEAS" (3) button.
  - The device turns on and carries out a measurement. The "SCAN" symbol (19) appears in the display. The current measured value is shown.
- 4. Release the "MEAS" button (3).
  - The device stops measuring. The "HOLD" symbol (20) appears in the display. The last value measured is shown.

#### Temperature probe

- 3. Press the temperature probe's lock (4) and fold out the temperature probe.
- Insert the temperature probe into the object to be measured by approx. 1 cm.
- 5. Press the "MEAS" button (3).
  - The current measured value is shown.

#### **Timer function**

- 3. Press the "SET" button (2) to set the time.
  - The "Timer function" (12) and "SET" (14) are shown.
- Press and hold the "MODE" button (6) for 3 seconds to switch between seconds, minutes and hours.
- Press the "TIMER" button (2) to set the corresponding value.

- 6. Press the "MEAS" button (3) to start the timer.
  - The timer 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, a beep is emitted for 30 seconds. Press any button to switch off the beep.

The device switches off after approx. 20 seconds without being used.

## **Settings**

## Changing the display °C - °F

Press the "SET" button (2) to change between the units for the measured values.

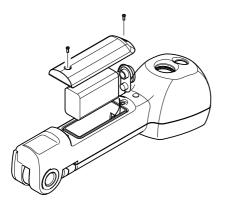
# Maintenance and repair

## **Battery change**



#### Caution!

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



#### Cleaning

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

Disinfect the temperature probe with a suitable disinfectant.

## Repair

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

# **Disposal**



In the European Union, electronic equipment must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2002/96/

EC of the European Parliament and Council of 27th January 2003 concerning old electrical and electronic equipment. After the end of its use, please dispose of this device in a manner appropriate to the relevant legal requirements.

# **Declaration of conformity**

in accordance with the EC Low Voltage Directive 2006/95/EC, Annex III, Section B and the EC Directive 2004/108/EC about electromagnetic compatibility. We hereby declare that the food thermometer BP5F was designed, developed and produced in compliance with the named EC Directive

The following EC directives were applied: 2006/95/EC, 2004/108/EC, 82/711/EC, 85/572/EC

Applied national standards and technical specifications: German LFGB (Food, Consumer Goods and Feedstuffs Code) §31, DIN 10955:2004

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