testo 805 Infrarot Thermometer Instruction Manual

Contents

testo 805 Infrarot Thermometer

Product Information

General Information

Please read this document through carefully and familiarize yourself with the operation of the product before putting it to use. Keep this documentation handy so that you can refer to it when necessary.

Product Description

- Infrared sensor
- Display
- On switch/activates measurement
- Battery compartment (rear side)
- Select mode
- TopSafe (protection for thermometer)

General Information

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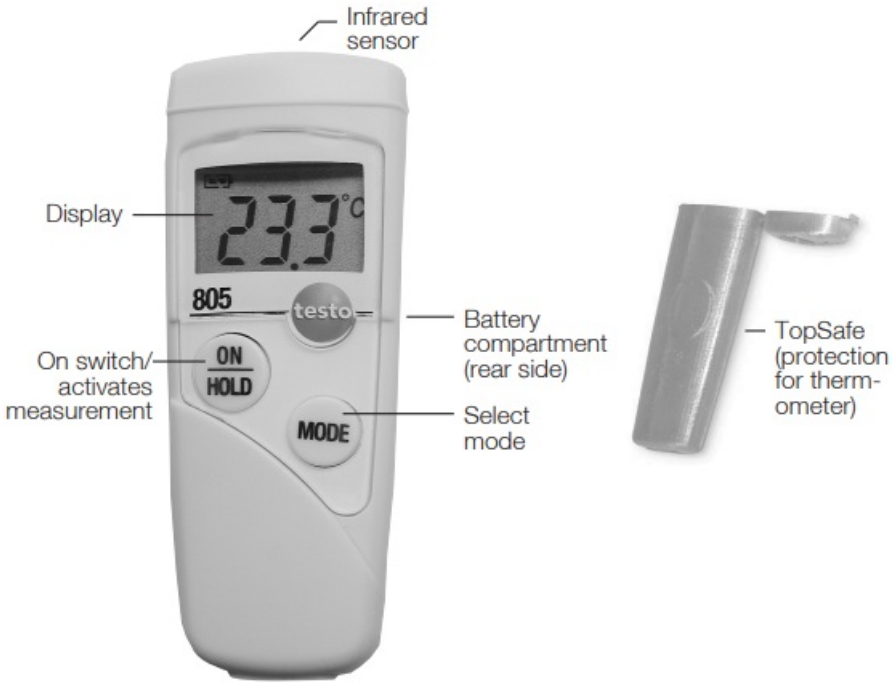
Product Description



Safety Information

Avoid electrical hazards

- Please adhere to the required safe distance when measuring on live parts!

Preserving product safety /warranty claims

- Operate the instrument properly and according to its intended purpose and within the parameters specifed. Do not use force.
- Do not expose to electromagnetic radiation (e.g. microwaves, induction heating systems), static charge, heat or extreme fluctuations in temperature.
- Do not store together with solvents (e.g. acetone).
- Open the instrument only when this is expressly described in the documentation for maintenance purposes.

Ensure correct disposal

- Dispose of defective rechargeable batteries and spent batteries at the collection points provided.
- Send the instrument directly to us at the end of its life cycle. We will ensure that it is disposed of in an environmentally friendly manner.

Protect the enviroment

- The button cell used in the instrument contains 1,2-Dimethoxyethane (CAS 110-71-4). See EC Regulation No. 1907/2006 (REACH) Art. 33.

Intended Purpose

- testo 805 is a compact infrared thermometer for non-contact measurement of surface temperatures.

Warning: Not suitable for diagnostic measurements in the medical sector.

Technical Data

Feature	Values
Measurement range	-25 to +250 °C
Resolution	0.1 °C at -9.9 to +199.9 °C, 1 °C in the remaining range
Accuracy	±3 °C at -25 to -21 °C ±2 °C at -20 to -2.1 °C ±1 °C at -2.0 to +40.0 °C ±1.5 °C at +40.1 to +150.0 °C ±2 % of reading at +150.1 to +250 °C
Response time	<1 s
Emissivity	0.95 fixed
Optics	1 : 1* (Distance : Spot)
Working temperature	±0 to +50°C
Transport / Storage temperature	-20 to +65°C
Power	1 x round cell type CR2032
Battery life	40 h (typically)
Housing	ABS, PMMA
Protection class	With TopSafe: IP65
Dimensions	80 x 31 x 19 mm (without TopSafe)
CE guideline	2014/30/EC

- + Opening diameter of sensor (6mm).

Initial Operation

1. Open battery compartment: Turn cover in an anti-clockwise direction.
2. Remove the battery interrupt strip.
3. Close battery compartment: Turn cover in a clockwise direction.
    - The instrument is ready to operate.

Operation

Switching On/Off

Switch on instrument 

:

- Battery symbol and set temperature unit light up.
- The thermometer switches off automatically after approx. 15s if the buttons are not activated.

Measuring

Take note of information on infrared measurement.

- Take note of information on infrared measurement.
- Instrument is switched on.

Carrying out spot measurement

- Locate object to be measured and activate measurement: ON HOLD.
- The reading is displayed.

Carrying out scan measurement

- Locate object to be measured and activate scan: Keep ON HOLD pressed.
- The scan measurement will run for as long as ON HOLD is kept pressed (1 measurement per second).

Carrying out minimum value scan measurement

1. 1 Activate MIN mode: MODE — ON HOLD > .
2. MIN lights up.
3. 2 Locate object to be measured and activate scan: Keep ON HOLD pressed.
    - The scan measurement will run for as long as ON HOLD is kept pressed (1 measurement per second). The lowest reading from the scan measurement is shown.
4. Deactivate MIN mode: MODE.

Carrying out maximum value scan measurement

1. Activate MAX mode: 2 x MODE (10g – -> ON HOLD).
    - MAX lights up.
2. Locate obiect being measured and activate scan: keep ON HOLD (pressed.
    - The scan measurement will run for as long as the ON HOLD button is kept pressed (1 measurement per second). The highest reading from the scan measurement is shown.
3. Deactivate MAX mode MODE:

Carrying out automatic scan measurement

1. Activate LOCK mode: 3 x MODE –> ON HOLD.
    - LOCK lights up. The automatic scan measurement starts automatically (1 measurement per s).

2. Deactivate LOCK mode: 

Attention: Automatic switch off of the instrument is deactivated in the LOCK mode.

Changing the temperature unit

Instrument is switched on.

1. Activate setting mode: 4 x 

.
    - The temperature unit set flashes.
2. Change temperature unit: 

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Service and Maintenance

Changing the Battery

1. Open battery compartment: Turn cover in an anti-clockwise direction.
2. Remove empty battery and insert new battery (Type CR2032) such that the (+) symbol is visible.
3. Close battery compartment: Turn cover in clockwise direction.

Cleaning the Instrument

- Do not use abrasive cleaning agents or solutions.
- Rub down the housing with a damp cloth. TopSafe can be cleaned in the dishwasher.
- Clean the sensor stop and the sensor area carefully with cotton buds dipped in water or medical alcohol.

Questions and Answers

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- If we have not answered your query, please contact your local dealer or Testo´s Customer Service.

Information on Infrared Measurement

Measurement Method

Infrared measurement is an optical measurement

- Keep sensor stop and sensor area clean.
- Do not measure if sensor area is clouded.
- Keep measurement field (area between instrument and object being measured) free of interferences: no dust or dirt particles, no moisture (rain, steam) or gases.

Infrared measurement is a surface measurement

If there is dirt, dust, frost etc. on the surface, only the top layer will be measured, i.e. the dirt

- In the case of shrinkwrapped foodstuffs, do not measure in air pockets.
- If values are critical, always subsequently measure using a contact thermometer. Particularly in the food sector, the core temperature should be measured with the penetration/immersion thermometer.

Emissivity

Materials have different emissivities, ie. they emit different levels of electromagnetic radiation. The emissivity of testo 805 is fixed at 0.95. This is the ideal value for measuring non-metals, plastics and food (paper, ceramics, plaster, wood, colours and varnishes). Bright metals and metal oxides are only suited to a limited extent to infrared measurement on account of their low or nonuniform emissivity.

- Apply emissivity increasing coatings such as varnish or emissivity adhesive tape (Type No. 0554 0051) to the object being measured. If this is not possible: measure with a contact thermometer.

Measurement spot, Distance

A specific spot is determined depending on the distance from the measuring instrument to the object being measured. testo 805 has an optical resolution of 1 : 1. The diameter of the spot is as large as the measurement distance + the diameter of the sensor opening (6mm).

Examples:

Measuring distance	Spot diameter
1cm	1 + 0.6cm = 1.6cm
10 cm	10 + 0.6cm = 10.6cm
20cm	20 + 0.6cm = 20.6cm

Documents / Resources

	testo 805 Infrarot Thermometer [pdf] Instruction Manual 805 Infrarot Thermometer, 805, Infrarot Thermometer, Thermometer

References

- TEMP Media Group