

## Infrared Thermometer



Thank you for choosing this instrument from TFA.

### 1. Before you use this product

- Please make sure you read the instruction manual carefully.
- Following and respecting the instructions in your manual will prevent damage to your instrument and loss of your statutory rights arising from defects due to incorrect use.
- We shall not be liable for any damage occurring as a result of non-following of these instructions. Likewise, we take no responsibility for any incorrect readings or for any consequences resulting from them.
- Please pay particular attention to the safety notices!
- Please keep this instruction manual safe for future reference.

### 2. Field of operation and all the benefits of your new instrument at a glance

- For contact-free measuring of surface temperature even of hot, hazardous, or hard-to-reach objects.

### 3. For your safety

- This product is exclusively intended for the field of application described above. It should only be used as described within these instructions.
- Unauthorized repairs, modifications or changes to the product are prohibited and might result in dangerous laser radiation.
- The product is not recommended for taking body temperature.



**Caution!**  
Risk of injury

- The product is equipped with a class 2M laser. If the sign on the device is not written in the language of your country, please affix the sign below onto the device.



### ATTENTION – LASER CLASS 2M

Never look directly into the laser beam.

Do not direct the laser beam into the eyes of a person or animal. It can cause permanent damage to the eye.

Wavelength: 635 - 660 nm / Output: <1mW  
EN 60825-1:2015-07

- Do not point the laser beam at mirrors or other reflective surfaces. The uncontrolled reflected beam may strike people or animals.
- Do not aim too close at hot or dangerous targets.
- Keep this instrument and the batteries out of the reach of children.
- Small parts can be swallowed by children (under three years old).
- Batteries contain harmful acids and may be hazardous if swallowed. If a battery is swallowed, this can lead to serious internal burns and death within two hours. If you suspect a battery could have been swallowed or otherwise caught in the body, seek medical help immediately.
- Batteries must not be thrown into a fire, short-circuited, taken apart or recharged. **Risk of explosion!**
- Low batteries should be changed as soon as possible to prevent damage caused by leaking.
- Never use a combination of old and new batteries together, nor batteries of different types.
- Make sure the polarities are correct. Remove the batteries if the device will not be used for an extended period of time.
- Avoid contact with skin, eyes and mucous membranes when handling leaking batteries. In case of contact, immediately rinse the affected areas with water and consult a doctor.



### Important information on product safety!

- Do not expose the device to extreme temperatures, vibrations or shocks.
- Protect the unit from large or abrupt ambient temperature changes.

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- Do not leave the unit near objects of high temperature.
- Do not immerse the unit in water. Water can penetrate and cause malfunction. Protect it from moisture.
- Check the housing before using the device. Do not use the device if it seems to be damaged. Check for cracks or missing plastic parts.
- Steam, dust, smoke, etc., can prevent accurate measurement by obstructing the unit's optics.



**EMC/RFI**

- Protect the unit from EMI (Electro Magnetic Interference) from induction heaters and microwave ovens and Electro Static Discharge. Readings may be affected if the unit is operated within a radio frequency electromagnetic field strength of approximately 3 volts per meter, but the performance of the instrument will not be permanently affected.

### 4. Use

- Press and hold the measuring button to activate the measuring process.
- The backlight is automatically activated.
- The circular laser allows you to target the center of the area to be measured.
- Release the measuring button.
- On the display appear HOLD and the latest measured temperature for about 15 seconds.
- The maximum value (MAX appears on the display) will be displayed during the measurement.
- Press the °C/°F button and you can change between Celsius (°C) or Fahrenheit (°F) as temperature unit.
- When the instrument is not used, it will automatically switch off after 15 seconds.

### 5. Distance, Spot Size, and Field of View

- As the distance (D) from the object increases, the spot size (S) of the area measured by the unit becomes larger a ratio D:S = 12:1 (e.g. 120 cm distance = 10 cm spot size). To get the most accurate temperature reading, aim at the target as near as possible.
- Should the distance be too great, there is a risk that the temperature has also been taken outside the aimed target.
- The circular laser helps to aim at the exact area to be measured. The laser circle and the measuring spot are congruent at a distance of 2 m.

### Please take note of the following:

- Not recommended for use in measuring shiny or polished metal surfaces (stainless steel, aluminum, etc.).
- The unit cannot measure through transparent surfaces such as glass or plastic. It will measure the surface temperature of the glass instead.

### 6. Care and maintenance

- The sensor lens is the most delicate part of the thermometer. Please protect the sensor part from dirt.
- Clean your instrument with a soft damp cloth. Do not use solvents or scouring agents.
- Remove the batteries if you do not use the product for a long period of time.

### 6.1 Battery replacement

- The battery symbol appears permanently on the display.




full



half-full



empty

- Change the batteries when the battery symbol  appears on the display.
- Confirm the unit is power off before changing battery.
- The battery compartment is in the inside of the handle. Slide down the battery compartment lid. Insert two new batteries 1,5 V AAA. Ensure that the battery polarity is correct.
- Close the battery compartment again. The cover is properly inserted in the housing, as soon as a click is heard.

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### 7. Troubleshooting

Problems	Solutions
No display	<ul style="list-style-type: none"> <li>→ Switch on the unit – press and hold the measuring button</li> <li>→ Ensure that the battery polarity is correct</li> <li>→ Change the batteries</li> </ul>
Er2	→ Large temperature changes in a short time
Er3	<ul style="list-style-type: none"> <li>→ Surrounding temperature is outside the operating range</li> <li>Recommended wait time: at least 30 minutes</li> </ul>
Er * and all other errors	<ul style="list-style-type: none"> <li>→ Remove the batteries (confirm the unit is power off)</li> <li>Recommended wait time: at least 60 seconds</li> </ul>
Display “oFF”	→ Automatic switch-off after 15 seconds
Display “Hi/Lo”	→ Measured temperature is outside measuring range

If your device fails to work despite these measures contact the supplier from whom you purchased it.

### 8. Waste disposal

This product and its packaging have been manufactured using high-grade materials and components which can be recycled and reused. This reduces waste and protects the environment.

Dispose of the packaging in an environmentally friendly manner using the collection systems that have been set up.



#### Disposal of the electrical device

Remove non-permanently installed batteries and rechargeable batteries from the device and dispose of them separately.

This product is labelled in accordance with the EU Waste Electrical and Electronic Equipment Directive (WEEE).

This product must not be disposed of in ordinary household waste. As a consumer, you are required to take end-of-life devices to a designated collection point for the disposal of electrical and electronic equipment, in order to ensure environmentally-compatible disposal. The return service is free of charge. Observe the current regulations in place!



#### Disposal of the batteries

Batteries and rechargeable batteries must never be disposed of with household waste. They contain pollutants such as heavy metals, which can be harmful to the environment and human health if disposed of improperly, and valuable raw materials such as iron, zinc, manganese or nickel that can be recovered from waste. As a consumer, you are legally obliged to hand in used batteries and rechargeable batteries for environmentally friendly disposal at retailers or appropriate collection points in accordance with national or local regulations. The return service is free of charge. You can obtain addresses of suitable collection points from your city council or local authority.

The names for the heavy metals contained are: Cd=cadmium, Hg=mercury, Pb=lead.

Reduce the generation of waste from batteries by using batteries with a longer lifespan or suitable rechargeable batteries. Avoid littering the environment and do not leave batteries or battery-containing electrical and electronic devices lying around carelessly. The separate collection and recycling of batteries and rechargeable batteries make an important contribution to relieving the impact on the environment and avoiding health risks.



#### WARNING!

**Damage to the environment and health through incorrect disposal of the batteries!**

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### 9. Specifications

Temperature range:	-38 °C ... + 365 °C / -36.4 °F...+689 °F
Operating environment:	0 °C ... + 50 °C / +32 °F...+122 °F
Accuracy:	+15°C...+35°C / +59°F...+95°F: ±1.5 °C / 2.7 °F -25°C...+ 365 °C / -13°F...+689 °F: ±2.5 °C or 2.5 % -38°C...-25 °C / - 36.4°F...-13 °F: ±3 °C
Emissivity:	0.95 only
Resolution:	0.2°C / 0.5 °F
Response time (90%):	1 second
Optical resolution:	12 : 1
Power consumption:	Batteries 2 x 1,5 V AAA
Automatic off-function:	approx. 15 seconds
Dimensions:	40 x 85 x 175 mm
Weight:	151 g (instrument only)

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The latest technical data and information about this product can be found in our homepage by simply entering the product number in the search box.

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