

D5500



292059

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Version: **1.0**

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Original operating instructions

Technical

Description	Infrared thermometer D5500
Item number:	292059
Material	Plastic
Display dimensions (W x D) in mm:	24 x 2
Temperature range from – to in °C ° F:	-50 °C - 550 °C -58 - 1022
Dimensions (W x D x H) in mm:	155 x 45 x 23
Weight in kg:	0.090

Subject to technical changes!

Design / Features

- Colour: black | orange
- Design: digital
- With temperature sensor: no
- Designed for:
 - core temperature measurements
 - Temperature monitoring during transport and storage
- Temperature measurement units: °C / °F
- Battery operated (2 x AAA 1.5V), not included
- Display: yes
- Areas of application:
 - Commercial kitchens
 - Cold rooms
 - Deep-freezing rooms
 - Cold rooms
 - Surface temperatures
- Properties:
 - Automatic switch-off after approx. 15 minutes
 - with hanging device
 - With laser pointer for precise measurements

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Intended use

The infrared thermometer with digital display and integrated laser pointer is designed to check surface temperatures.

Assembly overview



Fig. 1

- | | |
|-------------------------------|------------------------------|
| 1. Laser pointer | 2. Infrared sensor |
| 3. Measuring button (trigger) | 4. Battery compartment |
| 5. LCD display | 6. Laser/backlight/up button |
| 7. Function button | 8. °C/° °F/down button |

Warning notices

WARNING! Risk of injury!

Do not point the laser directly at the eye or indirectly via reflective surfaces.

CAUTION

The device cannot measure through transparent surfaces such as glass or plastic. Instead, the surface temperature of these materials is measured.

Steam, dust, smoke or other particles can prevent accurate measurement by blocking the optics of the device.

Precautions

The infrared thermometer should be protected from the following influences:

EMF (electromagnetic fields) from arc welding equipment and induction equipment;

Temperature shock (caused by large or abrupt changes in the ambient temperature; the device must stabilise for 30 minutes before use)

Do not leave the device on or near objects with high temperatures.

This device must not be operated by persons (including children) with limited physical, sensory or mental capabilities or lack of experience and/or knowledge. Children should be supervised to ensure that they do not play with the device or operate it.

Distance to measuring spot size

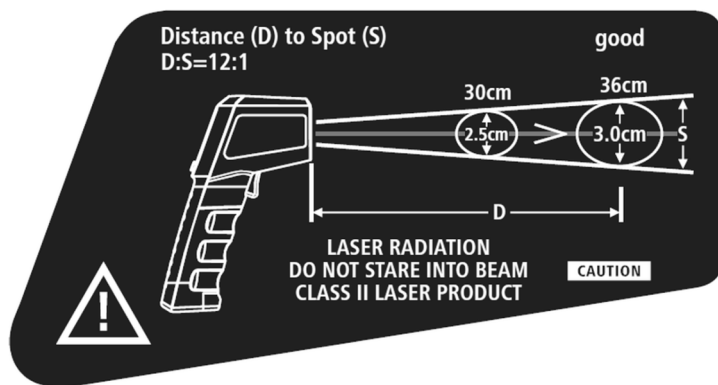


Fig. 2

- 1 When measuring the surface temperature, pay attention to the distance to the measuring spot size.

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The greater the distance (D) from the target object, the larger the measuring spot size (S), i.e. as the distance from the infrared thermometer to the object increases, the measuring spot area becomes larger (Fig. 2), which is referred to as D:S (distance-spot ratio).

The diameter of the measuring spot is 3.0 cm when measuring from a distance of 36 cm, and the infrared thermometer displays the average temperature of the measuring spot with a diameter of 3.0 cm.

Emissivity

Most organic materials, painted or oxidised surfaces have an emissivity of 0.95 (preset value).

Inaccurate measurements will be obtained when measuring shiny or polished metal surfaces (e.g. stainless steel or aluminium).

To achieve better accuracy, cover the surface to be measured with masking tape or black paint. Measure the adhesive tape or paint when they react.

Material	Properties	Emission factor	Material	Properties	Emission factor
Aluminium	Oxidised	0.20-0.40	Human skin		0.98
	polished	0.02-0.04	Graphite	oxidised	0.20-0.60
Brass	Oxidised	0.40-0.80	Plastic	transparent >0.5 mm	0.95
	polished	0.02-0.05	Rubber		0.95
Gold		0.01-0.10	Plastic cement		0.85-0.95
Iron	Oxidised	0.60-0.90	Concrete		0.95
Steel	Oxidised	0.70-0.90	Cement		0.96
asbestos		0.95	Earth		0.90-0.98
Gypsum		0.80-0.90	Mortar		0.89-0.91
Asphalt		0.95	Brick		0.90-0.96
Rock	powdered	0.70	Marble		0.94
Wood		0.90-0.95	Textiles	All types	0.90
Charcoal		0.96	Paper	with colour	0.95
Carbon		0.85	Sand		0.9
Paint	matt	0.97	Clay		0.92-0.96
Carbon cement		0	Gravel		0.95
Soap bubble		0.75	Glass		0.85-0.92
Water		0.93	Textiles		0.95
Snow		0.83-0.90	Heated food		0.95
Ice		0.96-0.98	Plastic		0.95
Frozen food		0.95	Oil		0.94
Ceramics		0.95	Steel / iron		0.80
Limestone		0.98	Wool	natural	0.94
Colour		0.93	Lead	oxidised	0.50

Operation

Switching

1. Insert 2 x AAA 1.5V batteries into the battery compartment.
2. Press the measurement button to switch on the device.

The infrared thermometer () switches on and automatically displays the temperature value.

LCD display

The LCD display shows the function signals (Fig. 3).

Measure

1. Point the thermometer head at the object to be measured.
2. Press the measurement button (trigger) and release it (the button must be pressed for at least 0.5 seconds) to display the current temperature reading, or press and hold the button to perform a continuous test with multiple temperature readings.

DE Switching off

The infrared thermometer switches off automatically after 15 seconds of inactivity.

LCD displays

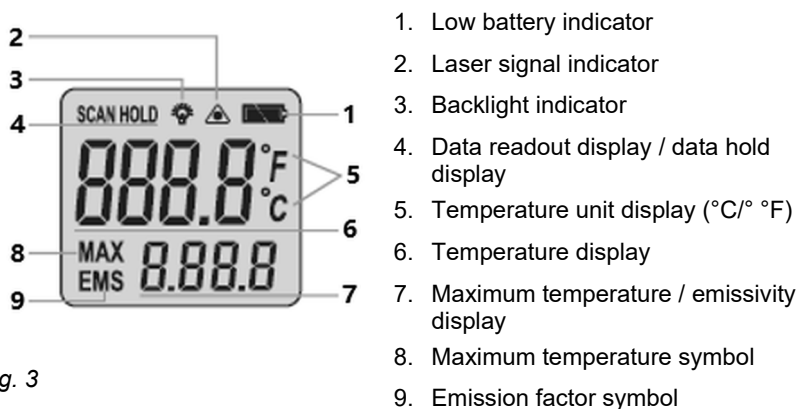


Fig. 3

Help functions

1. After switching on: press button 8 (Fig. 1) to switch from degrees Celsius to degrees Fahrenheit (or vice versa).
2. After switching on: press button 6, perform test with laser.
3. After switching on: press button 7 to access the emissivity setting, then press button 6 or button 8 to set the emissivity.
4. After switching on: press and hold button 3 and then press button 6 at the same time to switch the backlight on or off.

Replacing the batteries

1. Replace the batteries when the display becomes dim.
2. Remove the cover from the battery compartment.
3. Remove the empty batteries from the battery compartment.
4. Insert 2 new 1.5V AAA batteries (not included).
5. Then secure the cover on the battery compartment.

Cleaning

ATTENTION!

The infrared thermometer may be damaged by using unsuitable cleaning agents.

Do not use solvents for cleaning.

Do not immerse the device in water.

1. Clean the infrared thermometer thoroughly after each use.
2. Clean the lens carefully:
 - use clean compressed air to blow away loose particles,
 - use a soft brush to remove the deposits,
 - then clean the lens with a damp cotton cloth.
3. Clean the housing with a damp sponge/cloth and mild detergent.
4. Then dry the infrared thermometer or leave it to air dry.