User Manual

PCE-IR 90 Infrared Thermometer

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v1.0

Contents

1   Safety notes

Please read this manual carefully and completely before you use the device for the first time. The device may only be used by qualified personnel and repaired by PCE Instruments personnel. Damage or injuries caused by non-observance of the manual are excluded from our liability and not covered by our warranty.

- The device must only be used as described in this instruction manual. If used otherwise, this can cause dangerous situations for the user and damage to the meter.
- The instrument may only be used if the environmental conditions (temperature, relative humidity, …) are within the ranges stated in the technical specifications. Do not expose the device to extreme temperatures, direct sunlight, extreme humidity or moisture.
- Do not expose the device to shocks or strong vibrations.
- The case should only be opened by qualified PCE Instruments personnel.
- Never use the instrument when your hands are wet.
- You must not make any technical changes to the device.
- The appliance should only be cleaned with a damp cloth. Use only pH-neutral cleaner, no abrasives or solvents.
- The device must only be used with accessories from PCE Instruments or equivalent.
- Before each use, inspect the case for visible damage. If any damage is visible, do not use the device.
- Do not use the instrument in explosive atmospheres.
- The measurement range as stated in the specifications must not be exceeded under any circumstances.
- Non-observance of the safety notes can cause damage to the device and injuries to the user.

We do not assume liability for printing errors or any other mistakes in this manual.

We expressly point to our general guarantee terms which can be found in our general terms of business.

If you have any questions please contact PCE Instruments. The contact details can be found at the end of this manual.
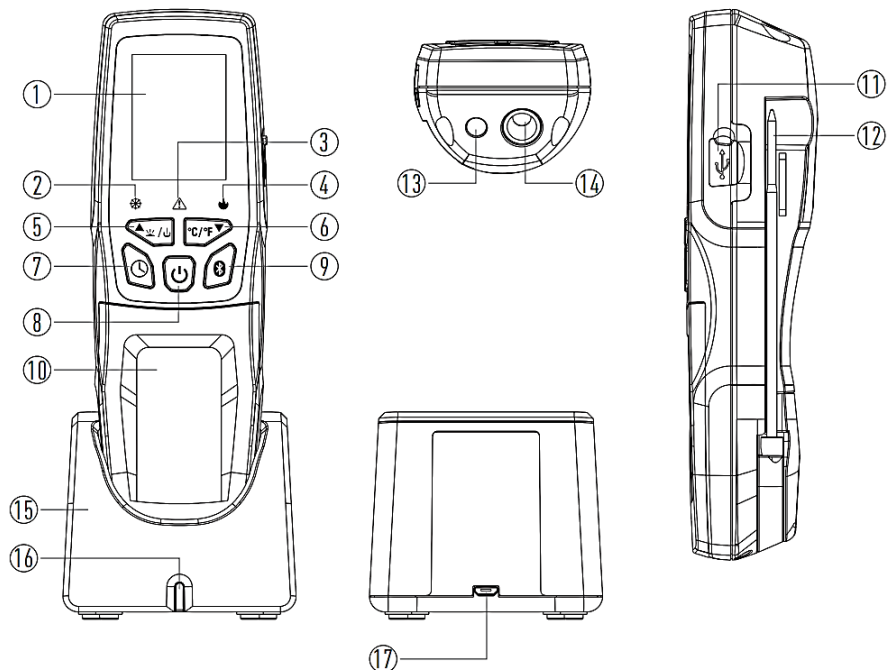
2   Specifications

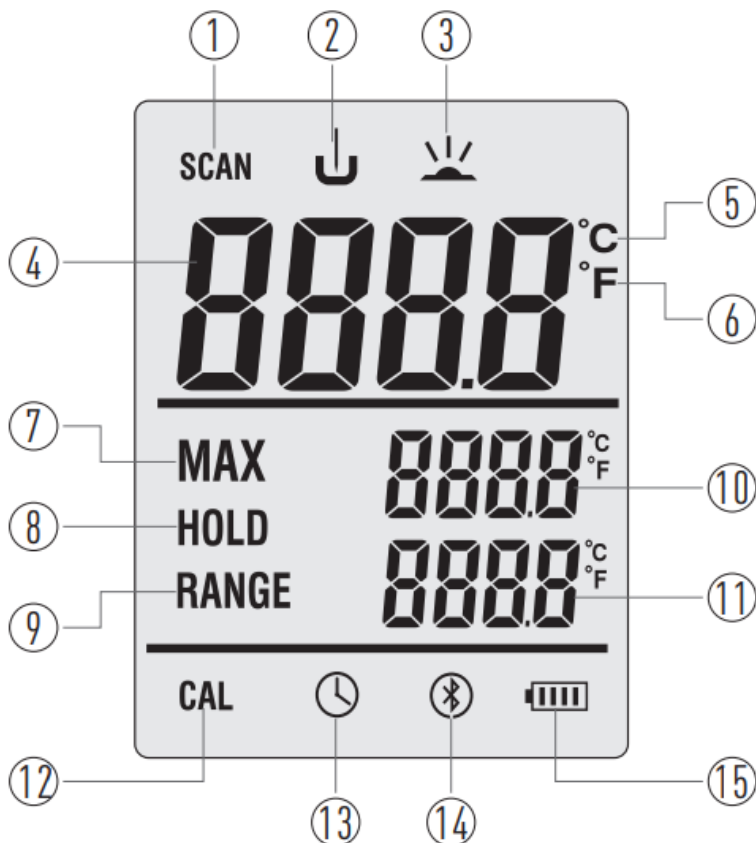| Infrared measurement	
Measurement range	-40 ... 300 °C, -40 ... 572 °F
Resolution	0.1 °C/°F
Accuracy	±1 °C, ±1.8 °F at 0 ... 65 °C/32 ... 150 °F ±2.5 °C, ±4.5 °F at <0 °C/<32 °F ±1.5 % at >65 °C/150 °F
Spot ratio	2:1
Response time	<500 ms
Penetration probe	
Sensor type	resistance temperature sensor
Probe length	100 mm
Measurement range	-40 ... 300°C, -40 ... 200°C, -40 ... 392°F
Resolution	0.1 °C/°F
Accuracy	±1 °C, ±1.8 °F at -40 ... 200 °C/-40 ... 392 °F ±1.5 °C, ±4.5 °F at >200 °C/>392 °F
Further specifications	
Emissivity	0.95 fixed
Interface	Bluetooth (data transfer) mirco USB (for charging)
Additional functions	timer and stopwatch
Power supply	4.2 V 1300mAh battery 5 V DC / 1A fixed voltage supply via mirco USB interface
Operating conditions	0 ... 50 °C, <85% RH, non-condensing
Dimensions	176 x 55 x 40 mm / 6.9 x 2.2 x 1.6 in
Weight	185 g / <1 lb

3   Delivery scope

1 x infrared thermometer PCE-IR 90
1 x mirco USB charging cable
1 x charging station
1 x transport bag
1 x user manual

4 Device description

No.	Description
1	Display
2	LED display. Temperature <4 °C
3	LED display. Temperature between 4 ... 65 °C
4	LED display. Temperature >65 °C
5	Up key to change parameters, change measuring mode
6	Down key to change parameters, unit key
7	Timer key
8	On/off key, start and stop measurement
9	Bluetooth on/off switch
10	Battery compartment cover
11	USB charging interface
12	Temperature probe
13	Laser
14	Infrared sensor
15	Battery charging station
16	Charging lamp
17	USB charging interface

No.	Description
1	Infrared temperature measurement active
2	Temperature measurement is carried out via the temperature probe
3	Temperature measurement is carried out via the infrared sensor
4	Measured value
5	Measured value is displayed in °C
6	Measured value is displayed in °F
7	The maximum measured value is displayed
8	Measurement has been stopped. Displayed measured value is frozen.
9	The smallest value of the current measurement is displayed
10	Display of the largest measured value
11	Display of the smallest measured value
12	Calibration mode
13	Timer started
14	Bluetooth active
15	Battery indicator

5 Switching the meter on and off

To switch the meter on and off, press and hold the on/off key for at least 2 seconds.
If the meter is not operated for 5 minutes, it switches itself off. This function cannot be deactivated.

6 Making a measurement

Press and release the on/off key once to start the measurement. The display shows "SCAN" when the measurement is being made. When the reading is stable for 5 seconds, the measurement ends automatically. The measurement can be ended manually by pressing the on/off key.

7 Changing the sensor

To select between the sensors, press and release the up key once. The display shows which sensor is currently being used.

8 Changing the unit

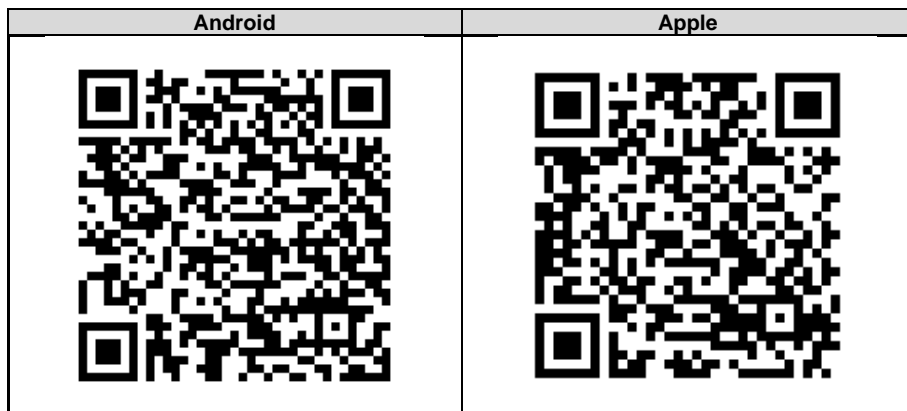Press and release the down key once to select °C or °F.

9 Bluetooth

Press the Bluetooth key to activate the Bluetooth function. To deactivate it again, press and hold the key again for at least 3 seconds. As soon as the Bluetooth icon is active, the function is activated.

To establish a connection to a mobile end device, first download the "MeterBox Pro" app from the App Store. Then establish a connection via the app. After connecting, use the "Food Thermometer" category in the app.

Note:
Do not connect the meter via the Bluetooth settings of the mobile end device.

Android	Apple

10 Timer function

A timer can be started with the timer function. To do this, press and hold the timer key for at least 3 seconds. To set a time, press the up and down keys. The time can only be set in minutes. Pressing the timer key starts the countdown. When the countdown is over, an audible alarm is triggered. Press and release the on/off key once to enter measurement mode and make measurements with the timer activated. The timer icon shows when the timer or stopwatch is active.

10.1 Stopwatch

To start the stopwatch, first press and hold the timer key to enter timer mode. Then press the timer key again to start the stopwatch. Press the timer key again to stop the timer. Press and hold the timer key for two seconds to reset the stopwatch.

Press and release the on/off key once to enter measurement mode and make measurements with the stopwatch activated. The timer icon shows when the timer or stopwatch is active.

11 Recharging the meter

To charge the meter, it can either be connected directly to a micro USB cable or placed in the charging station. The battery status indicator shows whether the battery is being charged.

12   Contact

If you have any questions, suggestions or technical problems, please do not hesitate to contact us. You will find the relevant contact information at the end of this user manual.

13   Disposal

For the disposal of batteries in the EU, the 2006/66/EC directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose.

In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law.

For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations.

If you have any questions, please contact PCE Instruments.

www.pce-instruments.com

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