



PCE Instruments PCE-MPC 15 / PCE-MPC 25 Particle Counter User Manual

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PCE Instruments PCE-MPC 15 / PCE-MPC 25 Particle Counter



User manuals in various languages



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.

Specifications

Mass concentration	
Measurable particle sizes	PM2.5 / PM10
Measurement range PM 2.5	0 ... 1000 µg/m³
Resolution	1 µm
Accuracy PM 2.5	0 ... 100 µg/m³: ±10 µg/m³ 101 ... 1000 µm/m³: ±10 % of rdg.
Particle counter	
Measurable particle sizes (PCE-MPC 15)	0.3 / 0.5 and 10 µm
Measurable particle sizes (PCE-MPC 25)	0.3 / 0.5 / 1.0 / 2.5 / 5.0 and 10 µm
Resolution	1
Accuracy	indicative measurements only
Maximum number of particles	2,000,000 particles/l
Temperature	
Measurement range	-10 ... 60 °C, 14 ... 140 °F
Resolution	0.01 °C, °F
Accuracy	±2 °C, ±3.6 °F
Humidity (RH)	
Measurement range	0 ... 100 %

Resolution	0.01 %
Accuracy	±3 %
Further specifications	
Response time	1 second
Warm-up phase	10 seconds
Mounting connection	1/4" tripod connection
Intake dimensions	outside: 13 mm / 0.51" inside: 7 mm / 0.27" height: 35 mm / 1.37"
Display	3.2" LC colour display
Power supply (mains adaptor)	primary: 100 ... 240 V AC, 50 / 60 Hz, 0.3 A secondary: 5 V DC, 2 A
Power supply (rechargeable battery)	18650, 3.7 V, 8.14 Wh
Battery life	approx. 9 hours
Automatic power off	off 15, 30, 45 minutes 1, 2, 4, 8 hours
Data memory	flash memory for approx. 12 measurement cycles One measuring cycle contains 999 measuring points
Storage interval	10, 30 seconds 1, 5, 10, 30, 60 minutes
Dimensions	222 x 80 x 46 mm / 8.7 x 3.1 x 1.8"
Weight	320 g / 11.2 oz

Scope of delivery

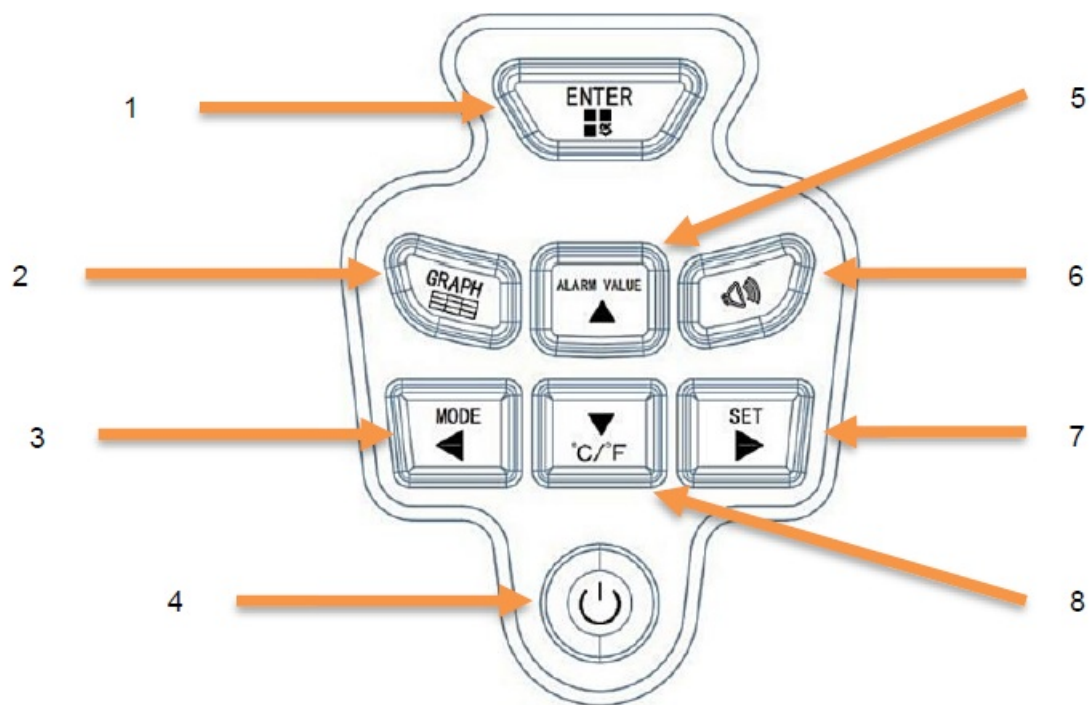
- 1 x particle counter PCE-MPC 15 or PCE-MPC 25
- 1 x carrying case
- 1 x 18650 rechargeable battery

- 1 x mini tripod
- 1 x Micro-USB cable
- 1 x USB mains adaptor
- 1 x user manual

Device description



No.	Description
1	Temperature and humidity sensor
2	Display
3	Keyboard
4	Intake
5	Micro-USB interface
6	Air outlet
7	Tripod connection
8	Battery compartment



No.	Description
1	“ENTER” key to confirm the entry and open menu items
2	“GRAPH” key to switch to graphical view
3	“MODE” key to switch the mode and to navigate left
4	On/off key to turn the meter on and off and exit parameter setting.
5	“ALARM VALUE” key to set the alarm limit and to navigate up
6	Speaker key to enable and disable the acoustic alarm
7	“SET” key to open parameters and navigate right
8	“°C/°F” key to select the temperature unit and to navigate down

Switching the meter on and off

To switch the meter on and off, press and release the on/off key once. After the start-up process, the measurement starts immediately. To obtain current measured values, let the meter draw in the current room air for the first 10 seconds.

View structure

To select between the individual views, press the “SET” key repeatedly. The different views are as follows.

View	Description
Measuring window	The measured values are displayed here
"Records"	The saved measurement data can be viewed here
"Settings"	Settings
"PDF" (PCE-MPC 25 only)	The saved data can be organised here

Measuring window

Graphical view

To switch to the graphical view, press the "GRAPH" key. Here, the course of the PM2.5 concentration is displayed. Use the up/down arrow keys to scroll between the individual pages. Press the "GRAPH" key again to return to the numerical view.

Note: To access a specific measuring point, go to the "Records" view, see 6.2 Records

Number of particles and mass concentration

To switch between particle count and mass concentration, press the "MODE" key.

Set alarm limit

To set the alarm limit value, press the "ALARM VALUE" key in the measuring window. The value can be changed with the arrow keys. Press the "ENTER" key to accept the set value. To activate or deactivate the alarm, press the speaker key. If a speaker is displayed for PM2.5, the acoustic alarm is active.

Note: This alarm limit value only refers to the PM2.5 value.

Records

In the "Records" view, the currently recorded measuring points can be viewed. To select between the individual measuring points, first press the "ENTER" key. Then use the arrow keys to move to the desired measuring point. Press the "ENTER" key again to be able to select between the views again.

Settings

To make settings, first press the "ENTER" key. A parameter can now be selected with the up/down arrow keys. Use the left and right arrow keys to change the respective parameter. Press the "ENTER" key to confirm the setting.

Setting	Meaning
OFF Backlight	Setting the backlight
Record interval	Setting the recording interval. Note: when an interval is set, recording starts immediately. The quantity of recorded measurement data can be seen in the measurement window.
Brightness	Setting the brightness
Data Clear	Deleting recorded measurement data. Note: This has no effect on the memory space for the PDFs that are already saved.
Time & Date	Setting the date and time
Auto shutdown	Set automatic power off
Language	Set language
Reset	Reset the meter to factory settings

Factory settings

If the meter has been reset as described in 6.3 Settings, the language will automatically change to Chinese. To change the menu language back to English, switch on the meter, press the “SET” key twice, select the second last setting item and press the “SET” key again.

Export of measurement data “PDF” (PCE-MPC 25 only)

Open the “PDF” view by repeatedly pressing the “SET” key. To export the recorded measurement data, first select “Export PDF”. The recorded data is then combined into a PDF file. Then connect the meter to a computer and select “Connect to USB” in the device to connect to the computer. On the computer, the meter is then displayed as a mass data storage device and the PDFs can be downloaded. Via “Formatted Disk”, the mass data memory can be cleared. This has no effect on the currently recorded measurement data. To return to the selection of views, go back to the “Shift” button with the arrow keys.

Battery

The current battery charge can be read from the battery level indicator. If the battery is flat, it must be replaced or charged via the Micro-USB interface. A 5 V DC 2 A power source should be used to charge the battery. To replace the battery, first switch off the meter. Then open the battery compartment on the back and replace the battery. Ensure correct polarity.

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.

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.

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Documents / Resources

	<p>PCE Instruments PCE-MPC 15 / PCE-MPC 25 Particle Counter [pdf] User Manual PCE-MPC 15 PCE-MPC 25 Particle Counter, PCE-MPC 15, PCE-MPC 25 Particle Counter, Particle Counter, Counter</p>
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- [Computer Instruments | Home](http://computerinstruments.com)
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- [Industrial Measurement Products and Solutions | PCE Instruments](http://www.pce-instruments.com)

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