



**PCE-EMF 30 Electromagnetic  
Field Meter**



# PCE INSTRUMENTS PCE-EMF 30 Electromagnetic Field Meter User Manual

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**PCE INSTRUMENTS PCE-EMF 30 Electromagnetic Field Meter**



## Product Information

### Specifications

- **Unit:** V/m
- **Resolution:** 1 V/m
- **Measurement Range:**
  - RF: 1 MHz to 10 GHz
  - EF: 5 Hz to 3500 MHz
- **Bandwidth:** Not specified
- **Measuring Distance:** Best within 0 to 60 cm from the measured object
- **Measuring Duration:** 0.7 seconds
- **Operating Temperature:** Not specified
- **Operating Humidity:** Not specified
- **Operating Voltage:** Not specified
- **Dimensions (L x W x H):** Not specified
- **Weight:** Not specified

### Product Usage Instructions

- Please read the manual carefully before using the device.
- Use only by qualified personnel and have it repaired by PCE Instruments personnel if needed.
- Avoid damage or injuries by following the manual.
- Includes one electromagnetic field meter PCE-EMF 30 and one user manual.
- Refer to the specifications above for technical data.
- Ensure the device is within the recommended measuring distance of 0 to 60 cm from the object being measured.
- Press the appropriate buttons to start the measurement process.

- If the device detects an overload, follow the instructions in the manual to resolve the issue.
- Check and replace the battery as needed following the guidelines in the manual.
- If you have any questions or need assistance, contact PCE Instruments for support.
- Follow proper disposal procedures as outlined in the manual when disposing of the device.

## FAQ

- **Q:** How do I calibrate the electromagnetic field meter?
- **A:** Calibration instructions can be found in the user manual. Follow the step-by-step guide provided.
- **Q:** Can I use the device in extreme temperatures?
- **A:** Operating temperature ranges are provided in the technical data section. Avoid using the device outside of these ranges.

## 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.
- Never use any pointed objects to press the keys.
- Store the meter in a cool, dry place. No vibration should occur at the place of storage.
- 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.

## Delivery Contents

- 1 x electromagnetic field meter PCE-EMF 30
- 1 x user manual

## Technical Data

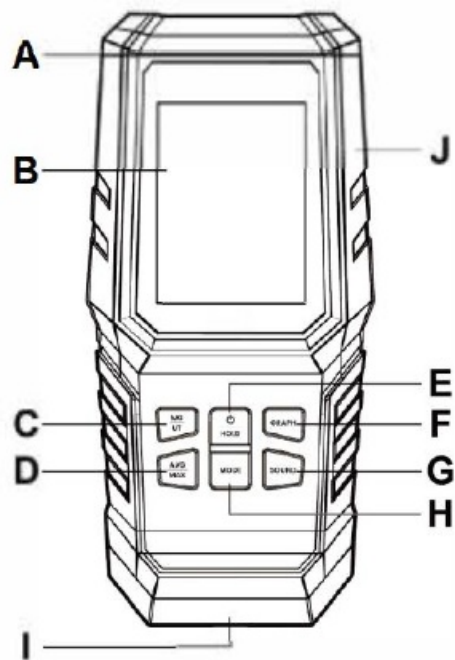
	RF	EF	MF
Unit	mW/m²	V/m	mG/μT
Resolution	0.01 mW/m²	1 V/m	0.1 mG / 0.01 μT
Measurement range	0.01 ... 1800 mW/m²	1 ... 1999 V/ m	0.1 ... 999.9 mG 0.01 ... 99.99 μT
Bandwidth	1 MHz ... 10 GHz	5 Hz ... 3500 MHz	
Measuring distance	The best measuring distance is within 0 ... 60 cm from the measured object. You can also measure beyond this range but deviations may occur.		
Measuring duration	0.7 s		
Operating temperature	0 ... 50 °C		
Operating humidity	<80% RH		
Operating voltage	3.7 V		
Dimensions (L x W x H)	147 x 69 x 31		
Weight	147 g		

## Description

- The PCE-EMF 30 measures electric fields (EF), magnetic fields (MF), and radio frequency fields (RF). The default mode is the EF mode when the instrument turns on and the readings are shown on the LCD.
- The instrument is equipped with a built-in electromagnetic radiation sensor and displays the radiation value on an LCD screen.
- You can take effective prevention measures against electromagnetic radiation according to the test result.

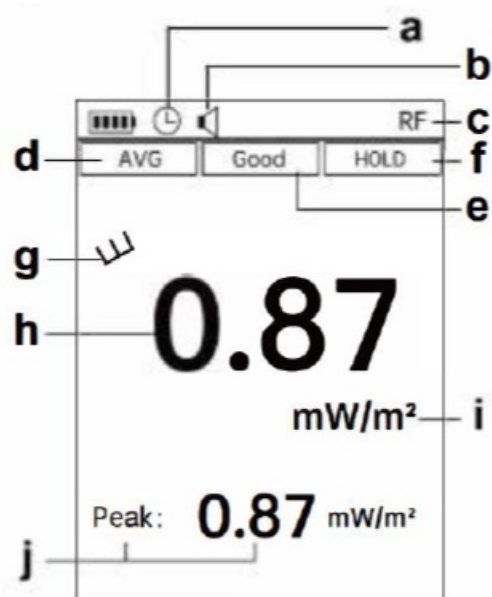
## Device description

- **A** = EF / MF detection area B = LC display
- **C** = UNIT key
- **D** = Average/peak key
- **E** = On/off / HOLD key
- **F** = GRAPH key
- **G** = SOUND key
- **H** = MODE key (EF / MF / RF) I = Charging socket
- **J** = RF detection area




## Display description

- **a** = Auto-off display
- **b** = Audio display
- **c** = Parameter display
- **d** = Average/maximum value indication e = Evaluation
- **f** = Data hold
- **g** = Signal direction
- **h** = Reading
- **i** = Unit
- **j** = Maximum value



## Operation

### Turning the meter on/off

- Short press the HOLD key to turn on the meter. Press and hold the key to turn off the meter.
- After power on, auto power off will be on by default and the  icon will be displayed. Without any operation in about 15 minutes, the meter will automatically shut down. Press and hold the MODE key to deactivate the function.

### Note

Due to possible electromagnetic field interference in the environment, the meter may show a small value after powering on. This does not mean that the instrument is defective.

### Backlight and color setting

- Press and hold the MG/UT key (UNIT) to switch the backlight brightness between constant light and high light (default: constant light).
- Press and hold the GRAPH key to switch between white and black display.

### Measurement mode

For a standard EF measurement after power on, hold the instrument with the front sensing area slowly approaching the electromagnetic radiation source to be tested. The measured value is displayed if the radiation value is within the specified range.

Short press the MODE key to switch between the measurement modes EF/MF/RF.

### Notes

- Do not cover the sensors at the top of the meter with your hand or other objects.
- Measure from a safe distance when high-pressure facilities are involved!

### Average/maximum / peak value mode

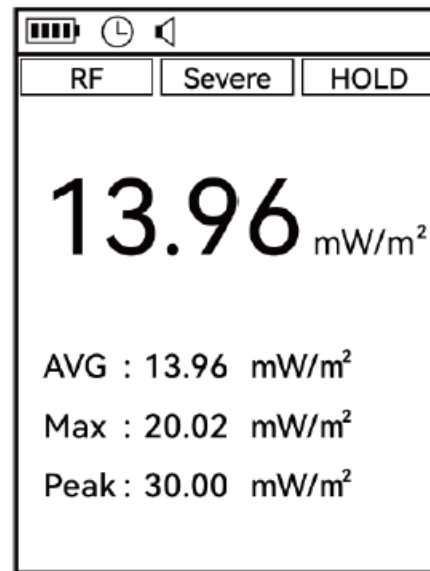
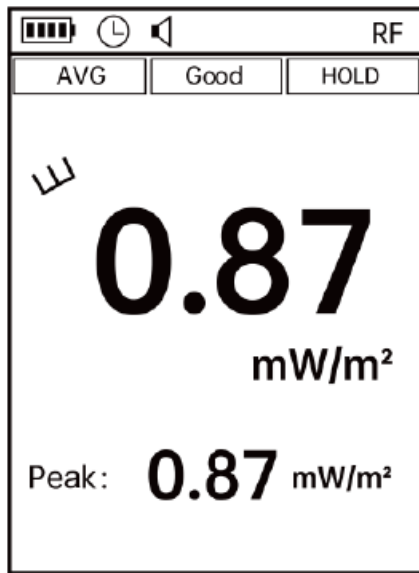
- Short press the average/peak key to switch between average and maximum value. The peak value is displayed at the bottom.
- AVG: the average of 40 measurements at a sampling frequency of about 1000 Hz
- MAX: the maximum value measured after power-on
- Peak: the measured peak value within 3 seconds

### Changing the unit

Short press the MG/UT key (UNIT) to switch the magnetic field unit between  $\mu\text{T}$  and mG.

### Graphical view

- Short press the GRAPH key to switch between measurement and graphical view.
- The measurement view displays the measured value and peak value and the graphical view displays the current measured value and the 30 values measured in the past in a bar graph which is updated in real time.



### Hold data

- Short press the HOLD key to hold/freeze the data. The HOLD icon will be displayed on the screen.
- Press the key again to exit HOLD mode.

### Zero setting (EF-and MF measurements only)

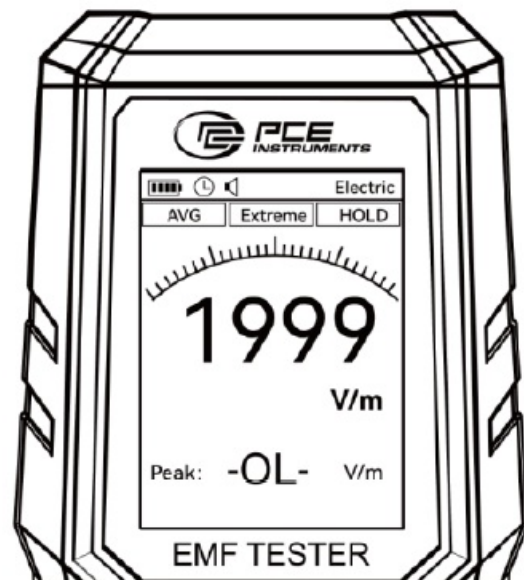
Press and hold the SOUND key. The “Zero Cal” icon will be displayed. At the same time, short press the HOLD key to finish the zero setting. „Zero Done” will now be displayed.

#### Notes

- The electric field zero setting is limited to measurement values below 10 V/m.
- The magnetic field zero setting is limited to measurement values of 0.1  $\mu$ T or below.

### Overload Information


- When the measured value exceeds the maximum range, “OL” will be displayed, see below.



## Alarm display

Radiation value evaluation	Good	Slight	Severe	Extreme
RF (mW/m <sup>2</sup> )	0 ... 1	1 ... 5	5 ... 20	20 ... 1800
EF (V/m)	0 ... 40	40 ... 75	75 ... 100	100 ... 1999
MF (mG)	0 ... 4	4 ... 10	10 ... 50	50 ... 999.9
Colour of reading	Black/white	Black/white	Red	Red
Color in the bar graph	Green	Blue	Orange	Red

## Alarm sound

- The sound is turned off by default when the meter is powered on. Short press the SOUND key to turn the sound on/off. When turning on the sound, the  icon will be displayed.
- When the measured value reaches the “slight” level, the meter will give an alarm. The intensity of sound changes according to the measured value.

## Battery

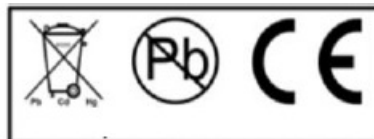
- When the rechargeable battery is going flat, charge it in time.
- The charging indicator displays 100 % when the battery is fully charged.

## 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 that disposes of the devices in line with the 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.





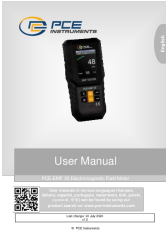
## PCE Instruments' contact information

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## Documents / Resources

	<p><a href="#">PCE INSTRUMENTS PCE-EMF 30 Electromagnetic Field Meter</a> [pdf] User Manual PCE-EMF 30 Electromagnetic Field Meter, PCE-EMF 30, Electromagnetic Field Meter, Field Meter, Meter</p>
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## References

- [France.fr : Explore France and its wonders - Explore France](#)
- [iberica.es](#)
- [Make an offer on the domain instruments.co.uk - Domains.co.uk](#)
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