



# User Manual

Gauss Meter PCE-SFS 10



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski, русский, 中文) can be found by using our product search on: [www.pce-instruments.com](http://www.pce-instruments.com)

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## 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

<b>Electromagnetic field</b>	
Measurement range	±60 kV DC
Resolution	±20 kV DC: 0.01 kV DC -60 ... -20 kV DC / +20 ... +60 kV DC: 0.1 kV DC
Accuracy	±5 % of reading
<b>Temperature</b>	
Measurement range	-40 ... 123.8 °C
Resolution	0.1 °C
Accuracy	±1.5 °C
<b>Humidity</b>	
Measurement range	0 ... 100 % RH
Resolution	0.1 % RH
Accuracy	±4.5 % RH
<b>Further specifications</b>	
Response time	<100 ms
Audible alarm	when the meter is switched on, 5 seconds before automatic power off, when measurement range is exceeded
Automatic power off	after 5 minutes
Power supply	9 V block battery
Operating time	>20 hours
Operating conditions	0 ... 40 °C, 0 ... 60 % RH, non-condensing
Dimensions	123 x 70.4 x 21.5 mm
Weight	147 g

## 3 Delivery scope

- 1 x gauss meter PCE-SFS 10
- 1 x earthing cable
- 1 x carrying bag
- 1 x 9 V block battery
- 1 x user manual

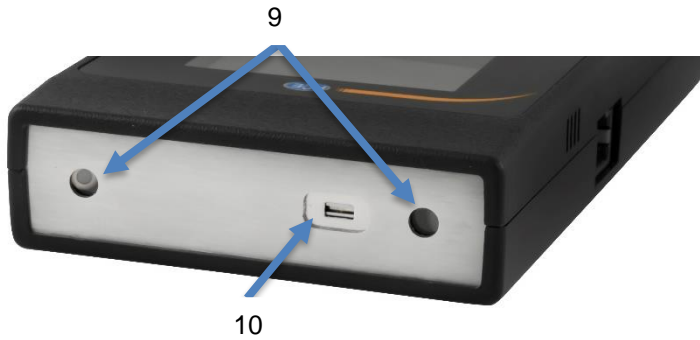
#### 4 Device description



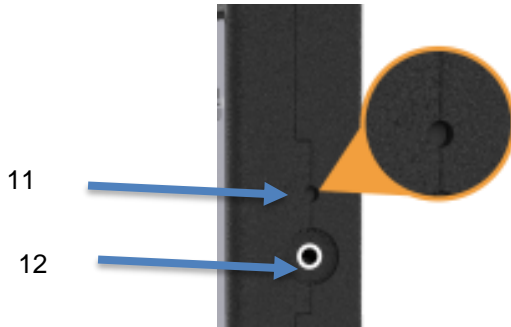
No.	Description
1	Housing
2	Display
3	On and off switch
4	"HOLD" key to freeze the display
5	"ECO" key for switching the backlight on and off
6	Status display



No.	Description
7	Temperature and humidity sensor
8	Service interface



No.	Description
9	Alignment laser
10	Radiation sensor

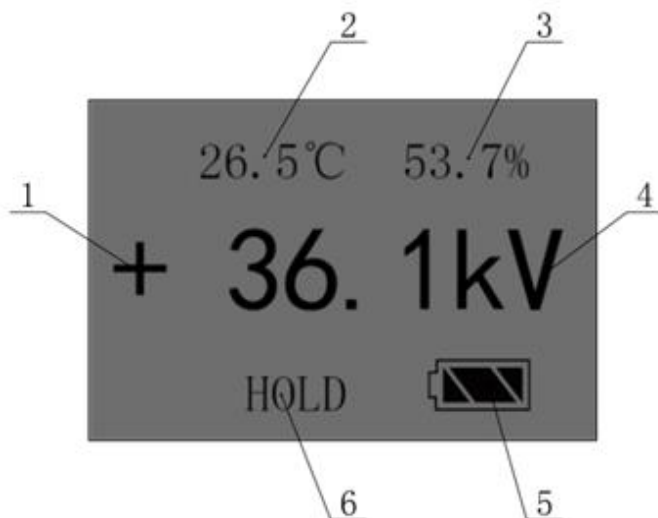


No.	Description
11	"Zero" key for setting the zero point
12	Earth connection



No.	Description
13	Nameplate
14	Battery compartment





## 4.1 Display description



No.	Description
1	Polarity of the magnetic field
2	Temperature display
3	Humidity display
4	Measured value
5	Battery status display
6	"HOLD" - display is frozen

## 5 Battery information

The battery life is a maximum of 20 hours. The battery status is continuously shown on the display.

Battery status display	Meaning
	Battery is fully charged.
	Battery is partially discharged.
	Battery almost discharged. The battery should be replaced promptly.
	Battery is discharged. The battery must be replaced for further use.

To replace the battery, first switch off the meter and remove the earthing cable from the meter. Then open the battery compartment and replace the battery with a new 9 V block battery. Then close the battery compartment. The measurement can be resumed.



## **6 Switching on and off**

To switch the meter on and off, press the on/off switch. The measurement is made after a few seconds. To switch the meter off again, press the on/off switch again.

## **7 Backlight**

When the meter is switched on, the backlight is activated. To switch off the backlight, press and hold the "ECO" key for two seconds. To switch the backlight back on, press and hold the "ECO" key again for two seconds.

## **8 Making a measurement**

To make a measurement, first connect the earthing cable to the meter and to an earthed conductor. Then switch on the meter. The measurement will start after a short time. Point the measuring device at the object to be measured. You have reached the correct distance as soon as the lasers cross. Now you can read the measured value.

## **9 Zeroing**

To zero the meter, first ground it with the earthing cable. Then switch on the meter and wait until the reading has stabilised. Then press the zero key to set the displayed reading to zero.

### **NOTE:**

Make sure that there is no static charge on the sensor side. This can influence zeroing.



## 10 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.

## 11 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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