



# User Manual

PCE-RM 100 Gloss Meter



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 Scope of delivery

- 1 x gloss meter PCE-RM 100
- 1 x white & black standard
- 1 x white & black calibration reference
- 1 x mains adaptor
- 1 x cleaning cloth
- 1 x carrying case
- 1 x user manual

## 3 Specifications

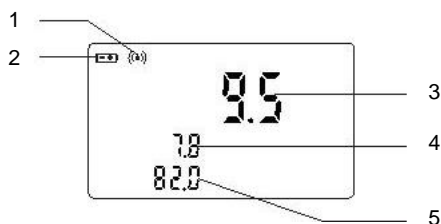
Measurement range	0 ... 100
Optical measurement angle	45 ° angle
Measurement accuracy	±1
Resolution	0.1
Repeatability	±0.3
Measuring surface	7 x 14 mm (elliptical)
Interface	USB
Power supply	3.7 V Li-Ion battery
Operating conditions	0 ... 40 °C / <85 % RH
Dimensions	141 x 45 x 79 mm / 5.6 x 1.8 x 3.1 in
Weight	approx. 310 g / <1 lb

## 4 Device description



No.	Description
1	LC display
2	"Power" key for switching the meter on and off
3	Calibration key
4	Decrease value and reset zero point
5	Measuring aperture
6	Measurement on black surface
7	Measurement on white surface
8	Increase value
9	Service interface
10	Charging port

## 5 Display description



No.	Description
1	Indication that a measurement is made
2	Battery indicator - When this icon lights up, the built-in battery is discharged and needs to be recharged
3	Reflectance value
4	Reading for measurement on black surface (RB)
5	Reading for measurement on white surface (RW)



## 6 On / off

To turn on the meter, press the "POWER" key. To turn off the power, press and hold the "POWER" key until "OFF" is displayed.

## 7 Measurement

To perform a measurement, first place your sample on the black side of the included white & black standard. Then place the meter on your sample and press "RB" to perform the first measurement. You will see the first reading in the "RB" area. Then place the sample and the meter on the white side of the included white & black standard and press "RW" to make a measurement. After the measurement, you will be shown the value of the last measurement in the "RW" area and the ratio between the two values in the upper section of the display.

**Note:** During a measurement, make sure that no light radiation enters the measuring chamber. Exposure to light from outside affects the measured value.

## 8 Calibration

To perform a calibration of the measuring instrument, place the instrument on the white side of the calibration reference provided without any sample. Then press the "CAL" key. The display will show "CAL" and the calibration will be performed. After calibration, the set calibration standard value is displayed. Compare this value with the value on the calibration reference you have used. If the values are the same, the calibration is completed. If they do not match, this calibration reference must first be entered in the instrument (see chapter 8.1). Then the calibration must be repeated. Then make a test measurement to check whether the calibration was successful. If this is not the case, repeat this procedure.

### 8.1 New calibration reference

If you have a new calibration standard, it must first be entered in the instrument. To do this, keep the "POWER" key pressed until the display shows "CAL". Now set the displayed value to the value of your new calibration reference. Press the "POWER" key again to accept the set value.


### 8.2 Zero point

To reset the zero point of the meter, place the meter on the black side of the included calibration reference without any sample. Then press the "ZERO" key. "CAL" appears on the display and a measurement is performed. After the measurement, the set calibration standard is displayed. Then make a test measurement to check whether the zeroing was successful. If this is not the case, repeat this procedure.

## 9 Automatic Power Off

To save battery power, the meter has an automatic power off function. If you do not press any keys for 10 minutes, the meter turns off automatically.

## 10 Battery

As soon as the battery icon  appears on the display, the measuring instrument must be charged to ensure proper functioning. Use the supplied charger to recharge the battery. The charging cycle takes approximately 4 hours. After charging, the charger must be disconnected from the meter.

## 11 Notes on the measurement

To ensure that the measured values are within the parameters, regular calibrations should be carried out.

The sample preparation must comply with national standards and regulations.

The sensor system should always be covered to extend its lifetime. It is therefore advisable to place the meter on the black surface of the white & black standard when no measurement is made.

## 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.





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