



User Manual

PCE-GM 55 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

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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 Delivery contents

1 x gloss meter PCE-GM 55
1 x reference standard
1 x cleaning cloth
1 x carrying case
1 x user manual

3 Technical specifications

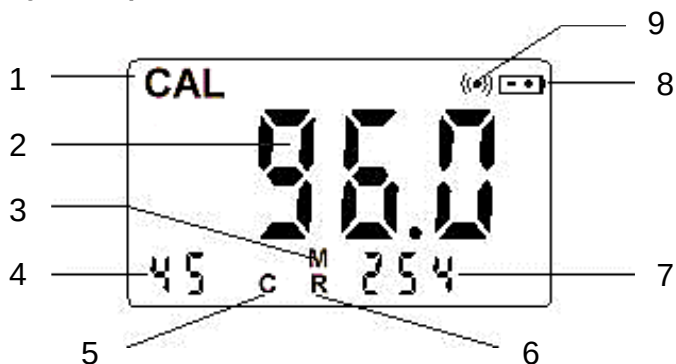
Measuring angle	20°, 45°, 75°
Measuring range	0 ... 200 gloss units
Resolution	0.1 gloss units
Accuracy	± 1 gloss units (on reference standard)
Repeatability	± 0.5 gloss units (0 ... 99.9 GE)
Measuring surface	7 x 14 mm (elliptical)
Data storage	254 measuring points
Interface	Serial
Operating conditions	0 ... 40°C / 32 ... 104°F, max. 85% rh
Power supply	Li-ion battery
Weight	305 g / < 1 lb
Dimensions	140 x 45 x 75 mm / 5.5 x 1.8 x 3 in

4 Device description



No.	Description
1	Display
2	On/off key (POWER)
3	ANGLE key to set measuring angle (ANGLE)
4	CAL key for calibration and to decrease parameters
5	MEAS key to make a measurement
6	DEL key to delete reading
7	RD key to view memory and increase parameter
8	USB interface via 2.5 mm jack
9	Case
10	Charging connection
11	Calibration reference

5 Display description



No.	Description
1	Indicates that you are in calibration mode
2	Reading
3	Measuring mode
4	Measuring angle
5	Continuous mode
6	Memory readout mode
7	Memory item no.
8	Indicates that battery must be recharged
9	Indicates that a measurement is made

6 On/off

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

7 Automatic Power Off

The gloss meter has an automatic power off function to save battery power. If no key is pressed for 10 minutes when a single measurement is made, the meter will turn off automatically. When a continuous measurement is made, the meter will power off automatically after an hour. This function cannot be deactivated in measuring mode.

8 Measurement

The gloss meter has two measuring functions:

In single measuring mode, the user can press the MEAS key to make a measurement. ((•)) will be displayed during a measurement. The reading will be saved directly after a measurement.

In continuous measuring mode, the meter automatically makes continuous measurements without requiring the user to make any entries. A measurement is made approx. every three seconds. The readings are saved continuously.

To switch between these measuring functions, press and hold the on/off key until "SC" is displayed after "OFF" was shown.

To change the measuring angle, press the ANGLE key.

9 Calibration

The gloss meter should be calibrated regularly. To calibrate the meter, place it onto the calibration standard. Now make one measurement per angle and compare the readings to the values on the reference.

If one reading is outside the parameters, you can automatically set the value for this angle by pressing the CAL key while the meter is still on the reference.

10 New calibration standard

If you want to use a new calibration standard, this standard must first be added. To add the standard, press and hold the on/off key (while the meter is on) until "CAL" appears on the display (after "OFF" and "SC"). Then press the CAL key. "CAL" will be displayed, followed by the angle and the pre-set value. You can now change the reference value with the arrow keys. With the ANGLE key, you can select the next measuring angle. After setting the reference values for all measuring angles, press the ANGLE key to confirm the settings and return to measuring mode.

11 Saving/viewing/deleting measured data

This gloss meter has two functions which can be seen on the display.

M	The meter is in measuring mode
R	The meter is in memory readout mode

In measuring mode, each reading will be saved. A measurement is made as soon as the measuring icon (☉) is displayed. A maximum of 254 values can be saved. When the memory is full, the oldest memory item will be replaced.

To enter memory readout mode, press the RD key. The display will switch from "M" to "R". Use the arrow keys to choose the saved reading you want to view.

With the DEL key, you can delete a single reading.

To return to measuring mode, press the MEAS key. The display will switch from "R" to "M".

To delete the complete memory at a time, press and hold the DEL key for three seconds in measuring mode.

Note: If you try to enter memory readout mode when no measuring data are available, the display will show "Err1". Memory readout mode can only be opened if data have been saved.

12 Recharging the battery

To make sure you can still use the meter, it should be recharged when the battery icon  appears in the display. To charge the meter, use the charger that comes with it.

If the rechargeable battery needs to be replaced, please contact PCE Instruments.

13 What to bear in mind before and during a measurement

Before a measurement, make sure that no external light enters the measuring chamber as this can affect the readings. When there are considerable temperature fluctuations, make sure the meter becomes acclimatised to the new environmental conditions. Then re-calibrate the meter before making a measurement. If the meter is used for a long period of time such as more than an hour, regular calibrations must be made. Make sure to store the calibration reference safely everytime it is removed.

14 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.

15 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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