

USER MANUAL

COATING THICKNESS GAUGE

PCE-CT 5



ENGLISH



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski) can be found via our product search on:
www.pce-instruments.com

PRODUCT OVERVIEW

This product is specifically designed for the detection of paint film thickness. It adopts magnetic induction and eddy current technology and can automatically identify the substrate. It can measure the thickness of paint films quickly, non-destructively and precisely.

INSTRUMENT CHARACTERISTICS

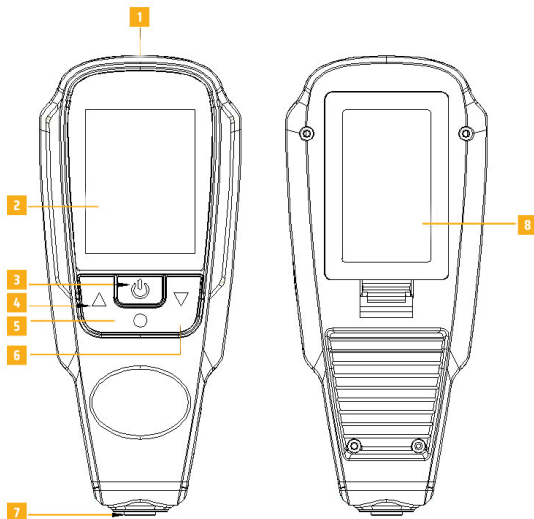
- » Foolproof and easy to operate.
- » The measurement speed is fast, approximately 0.5 seconds per time.
- » High precision, good stability and wear-resistant probe.
- » Dual-purpose for iron and aluminum, with automatic recognition and automatic conversion.
- » The light touch measurement has good accuracy and is not restricted by the operation method.

TECHNICAL PARAMETERS

Display	2.0-inch color screen
Resolution	0.1μm (0 ... 99.9μm) 1μm (100 ... 2000μm)
Automatic shutdown	Users can set it in the instrument
Unit	μm / mm/ mil
Power supply mode	3×1.5V AAA battery
Weight	Approximately 81g (excluding the battery)
Measurement range	0 ... 2000μm
Measurement accuracy	≤±(3%H+2μm)
The thinnest substrate	0.3mm
Minimum surface	5mm / 25mm
Operating conditions	-10°C ... 50°C
Storage conditions	-20°C ... 60°C
Product size	130×58×30mm

INSTRUMENT DESCRIPTION

- 1 - TYPE-C Data interface
- 2 - 2.0-inch color screen
- 3 - Power on/off/confirmation key
- 4 - Page down and scroll keys
- 5 - Cancel and exit keys
- 6 - Page down and scroll keys
- 7 - Probe
- 8 - Battery cover



INSTRUMENT OPERATION

Power ON/OFF

Press the power on/off button briefly to power on, and long press it to power off. The instrument will automatically enter the main interface. At this time, you can choose to enter the measurement, data, calibration, and Settings modes.

Operation logic

According to the display screen instructions, briefly press the 4/6 key to scroll and select or turn pages, then briefly press the 3 key to confirm the selection and enter the corresponding operation, and press the 5 key to cancel or exit the corresponding operation and return to the upper-level menu.

MEASUREMENT

Measurement method

Hold the groove of the instrument with the thumb and index finger, and press the probe vertically against the object to be measured. During measurement, it is essential to ensure that the speed at which the probe presses against the object to be measured is not too slow; otherwise, it will cause human measurement errors. To perform the next measurement, the sensor must be raised by more than 1cm, and then repeat the above steps.

Measurement

Operate according to the measurement method. The measurement result is shown in the right figure.

(Note: The count indicates the number of times the probe measured the data in this measurement. The average value, maximum value, and minimum value below can be obtained from the data of the last 10 measurements at most.)

CALIBRATION

Zero-point calibration

Follow the prompts to enter the zero-point calibration interface, Follow the prompts to press the probe onto the metal reference block (or the uncoated measuring body), Try to choose a metal reference plate whose properties are close to those of the metal to be tested, When measuring, do not shake the probe on the reference block. After the data stabilizes, press the 3 key to confirm. The instrument calibration is successful. Press the POWER key to confirm this operation or press the 5 key to cancel this operation to return to the upper-level menu

Note: Due to the possible physical property differences such as magnetic or non-magnetic metals between the tested substrate and the zero adjustment plate, to ensure more accurate data, please try to calibrate on the uncoated substrate of the tested product before measurement!

Thickness calibration

Follow the prompts to enter the thickness calibration interface, select the corresponding thickness standard plate and place it flat on the corresponding base plate (**Note:** Check that there is no dust, wrinkles or other unevenness between the thickness standard plate and the base plate to avoid affecting the calibration accuracy), then press the probe onto the thickness standard block for measurement. After the data stabilizes, Press the up/down keys to adjust the target value to be consistent with the value marked on the thickness standard plate (as shown in the left figure), press the 3 key to confirm this operation or press the 5 key to cancel this operation to return to the superior menu.

Clear the calibration

Entering this mode, you can choose to clear the calibration history data

Data

You can view 30 sets of data measured by the instrument recently here

Settings

The entry mode can be set as follows: unit, sound, automatic shutdown time, date and time, language, factory Settings, and formatting.

REPLACE THE BATTERY

- » The battery symbol on the display screen indicates that the battery is low. At this point, the battery needs to be replaced.
- » Open the battery cover, take out the battery, and install it correctly according to the symbols in the battery compartment of the instrument.
- » If the instrument is not used for a long time, please remove the battery to prevent it from rotting and damaging the instrument.

USB DATA READING

Connect the instrument to WINDOWS with a type-c interface data cable to read and copy the data in the instrument's memory to the computer system.

PRECAUTIONS FOR USING THE INSTRUMENT

- » It is strictly prohibited to slide the probe on the painted surface, as this may cause damage to the paint and the instrument.
- » Please ensure that the paint surface is clean. Dust and dirt on the paint surface can affect the measurement accuracy.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[illegible]

DISPOSAL

For the disposal of batteries in the EU, the (EU) 2023/1542 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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