English

User Manual

PCE-RVI 6 viscometer

User manuals in various languages (Deutsch, français, italiano, español, português, nederlands, türk, polski, русский, 中文) can be downloaded here:

www.pce-instruments.com

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English

Contents

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. If the viscosity of the liquid is too high, the spindle stops and a warning appears on the display. In this case, the device must be restarted.
- If the viscometer makes strange noises during the operation or if there is any kind of smoke or spark generation, turn it off immediately and contact our customer service.
- Do not set up the viscometer close to the strong electric or magnetic fields.
- Make sure that the instrument is levelled properly before taking a measurement. Use a level.
- Use the device only in the upright position, as otherwise it may cause damage to the device.
- 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

2.1 Technical specifications

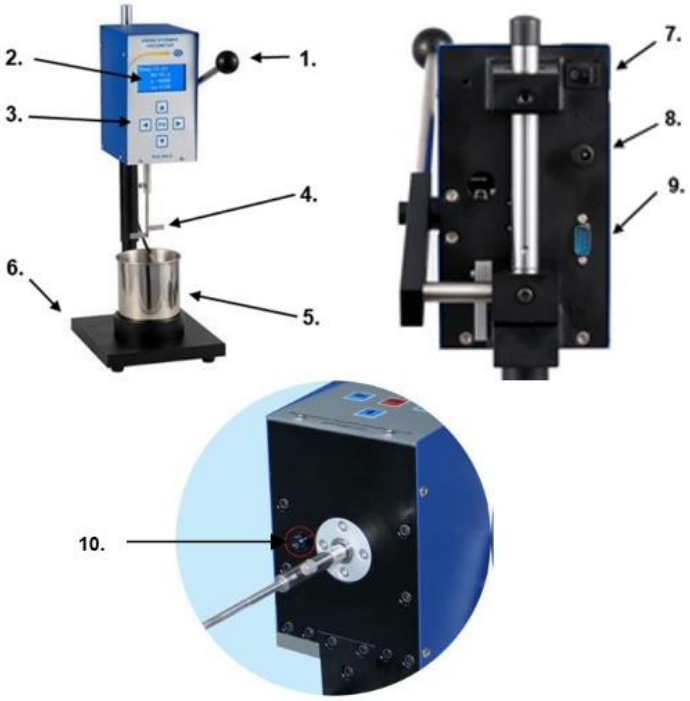
Rotational speed	200 rev / min ± 0.5 rev / min
Measuring range	40.2 KU ... 141.0 KU 32 g … 1099 g 27 cP … 5250 cP
Measuring deviation	± 1.5% of full scale value
Repeatability	± 1.0% of full scale value
Volume of the measuring cup	Ca. 800 ml
Stroke	90 mm
Power supply	110V ~ 220V, 50 ~ 60Hz
Power	10 W
Humidity	< 75 %
Dimensions	360 x 280 x 730 mm
Weight	10 kg

2.2 Delivery

1 x Krebs viscometer PCE-RVI 6
1 x spindle
1 x measuring cup (stainless steel)
1 x IR measuring cell below device head
1 x power plug
2 x stand for measuring cup
1 x manual
1 x calibration certificate

3 System Description

3.1 Device



1. Lever
2. LCD display
3. Control panel
4. Spindle
5. Measuring cup
6. Stand
7. ON / OFF switch
8. Connection mains adaptor
9. RS-232 interface
10. IR measuring cell

4 Preparation

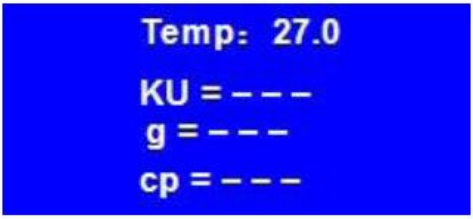
- Take the instrument out of the box and place it on an even surface.
- Take the spindle out of the box and attach it to on the shaft. To do this, push it into the opening at the bottom of the shaft and tighten it with the locking screw.
- Use the lever to move the motor unit incl. the impeller to the highest position.
- Connect the power adaptor to the viscometer and plug it into the socket.
- The ambient temperature should be at +25 ° C (± 2 ° C) in order to get the optimal results. The temperature of the sample should also be around +25 °C (± 2 °C).

5 Operation

Press the on / off switch on the back panel of the viscometer to turn it on.
After switching on, the device performs a self-calibration, which lasts for about 10 seconds (spindle rotates). Meanwhile, the serial number is shown on the display.

ATTENTION: Make sure that the motor unit is in the highest position when switching on the device and that the impeller can rotate freely and is not in the sample.

After the self-calibration, you get to the main screen:



The temperature is displayed at the top of the screen. Below that, there are the indications for viscosity (KU, g, cP).

5.1 Measurement

To perform a measurement, follow these steps:

1. Fill the measuring cup with the desired sample. Note that the sample has to reach the marking on the spindle (above the wings). If necessary, use one of the supplied stands.
2. Move the lever down until the lowest position is reached The spindle should be in the sample now, up to the marking.
3. Once the lowest position has been reached, the viscometer starts the measurement. The spindle starts rotating automatically. The measured values can now be tracked on the screen. In addition, a "o" symbol appears in the upper right corner of the screen. This means that the measurement has not been completed yet.
4. When the measurement is completed, a "●" instead of "o" appears in the upper right corner of the display. The final measurement values can now be read from the display.
5. Now move the lever up until the motor unit and the spindle are in the highest position again. The measurement is finished and the rotation of the spindle stops.

5.2 Settings

5.2.1 Language settings

Press the ▼ button to go to the language settings. Here you have a choice between English and Chinese menu language. Select the desired option with the ► button and hold the "FN" button to save the selection. In order to exit from the screen and return to the main screen, press the ◄ button.

5.2.2 Date and time settings

Press the ► button to go to the date and time settings. Here you can adjust date and time. Simply press the button ▲. Now the year starts flashing. Use the ▲ and ▼ buttons to change the value. With the help of ◄ and ► buttons you can switch to the previous or to the next parameter. To save the changes, select "SaveFN" with the ◄ and ► buttons and press the "FN" button. You return to the main screen of the date and time settings automatically. To cancel the setting and return to the main screen of the date and time settings, select "FNQuit" with the ◄ and ► buttons and press the "FN" button.

5.3 Print

If a printer is connected to the viscometer via RS-232 interface, you can print the current readings by pressing the "FN" button once.

6 Warranty

You can read our warranty terms in our General Business Terms which you can find here: https://www.pce-instruments.com/english/terms.

7 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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