

● **Operation**



Switch the unit on using the ON/OFF switch

Pt

The display shows the following:

Fill a clean vial with filtrated deionized water up to the 10 ml mark, replace the cap tightly, and place the vial in the sample chamber with the ▽ and Δ symbols aligned.



Press the ZERO/TEST key.



The method symbol flashes for approx. 3 seconds.

0.0.0

The display shows the following:

After zero calibration is completed, remove the vial from the sample chamber. Empty the vial. Fill the vial with the filtrated water sample up to the 10 ml mark. Replace the cap tightly and place the vial in the sample chamber with the ▽ and Δ symbols aligned.



Press the ZERO/TEST key.



The method symbol flashes for approx. 3 seconds.

RESULT

The result appears in the display.

Repeating the analysis:

press the ZERO/TEST key once again.

New zero calibration:

press the MODE key until the desired method symbol appears in the display again.

● **User messages**

EOI

Light absorption too great. Reason - e.g. soiled lens.

+Err

Measuring range exceeded or excessive turbidity.

-Err

Result outside bottom measuring range limit.

LO BAT

Replace 9 V battery immediately; no further analysis possible.

● **Technical data**

Optics:	LED: λ = 470 nm (interference filter)
Battery:	9 V block battery (life = approx. 600 tests)
Auto-OFF:	auto unit switch-off approx. 10 minutes after a key was last pressed
Ambient conditions:	5-40°C 30-90% rel. humidity (non-condensing)
CE:	DIN EN 55 022, 61 000-4-2, 61 000-4-8, 50 082-2, 50 081-1, DIN V ENV 50 140, 50 204

● **Range 0 - 500 mg/l Pt-Co**

0.0.0

Perform zero calibration (see “Operation”). Empty the vial. Use some of the filtered water sample to rinse out the vial, then pour the sample into the vial. Replace the cap tightly, and place the vial in the sample chamber with the ▽ and Δ symbols aligned.



Press the ZERO/TEST key.



The method symbol flashes for approx. 3 seconds.

RESULT

The result is shown in the display in mg/l Pt-Co units.

Measuring tolerance: ± 10 mg/l

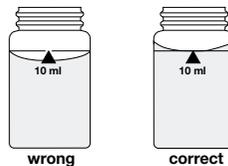
● **Preparation of sample**

- a) Blank for zero calibration:
Filter the deionized water through a membrane filter with a pore width of 0.45 µm. (Approx. 50 ml of the deionized water should be filtrated).
- b) Water sample for test:
Approx. 50 ml of the deionized water should be filtrated

● **Sample taking and preservation**

Pour the water sample into clean glass or plastic containers and analyse as soon as possible after the sample is taken. If this is not possible, fill the container right up to the top and seal tightly. Do not stir the sample; avoid lengthy contact with the air. The sample may be stored in a dark place at a temperature of 4°C for 24 hours. Before performing measurements, the water sample must be brought up to room temperature.

● **Correct filling of the vial**



● **Method notes***

Observe application options, analysis regulations of the methods. This colour scale was originally developed by A. Hazen as a visual comparison scale. Depending on the absorption maximum of the platinum-cobalt-standard this method is only suitable for water samples with yellowish to yellowish-brown coloration. Where applicable, a decision should be made based on visual inspection of the water sample. The method is calibrated on the basis of the standards specified by “Standard Methods for the Examination of Water and Wastewater”, APHA at a wavelength of 470 nm (also see EN ISO 7887:1994). 1 Pt-Co colour unit = 1 mg/l of platinum as chloroplatinate ion

● **Troubleshooting: Guidelines for photometric measurements**

1. Thoroughly clean vials, cap and stirring rod **after each analysis** in order to prevent carry-over errors. Use the supplied brush for cleaning.
2. Ensure that the outer walls of the vials are dry and clean before performing the analysis. Fingerprints or water droplets on the light entry surfaces of the vials lead to incorrect measurements.
3. “Zero calibration” and “Test” must be performed using the same vial, as different vials can possess slightly different tolerances.
4. For “Zero calibration” and “Test”, ensure that the vial is always positioned in the sample chamber in such a way that the graduation with the white triangle points toward the marking on the housing.
5. Always perform “Zero calibration” and “Test” with closed vial lid.
6. Bubbles on the inside walls of the vial lead to incorrect measurements. To prevent this, close the vial using the vial lid and remove the bubbles by swirling the vial before performing the test.
7. You must prevent water from penetrating into the sample chamber. The entry of water into the housing of the photometer can destroy electronic components and lead to corrosion damage.
8. Soiling of the lens (LED and photosensor) in the sample chamber leads to incorrect measurements. Check - and if necessary clean - the light entry surfaces of the sample chamber at regular intervals. Clean using a moist cloth and cotton buds.
10. Major temperature differentials between the photometer and the environment can lead to incorrect measurements - e.g. due to the formation of condensation water in the area of the lens or on the vial.
11. To avoid errors caused by stray-light do not use the instrument in bright sunlight.

● Calibration mode



Press MODE key and **hold depressed**.



Switch unit on using ON/OFF key.
Release MODE key after approx. 1 second.

CAL
Pt

The following messages appear in the display in alternating mode:



Perform zero calibration as described.
Press the ZERO/TEST key.



The method symbol flashes for approx. 3 seconds.

0.0.0
CAL

The following messages appear in the display in alternating mode:



Place the standard to be used in the sample chamber with ∇ and Δ alignment. Press the ZERO/TEST key.



The method symbol flashes for approx. 3 seconds.

RESULT

CAL

The result is shown in alternating mode with CAL.

If the result corresponds to the value of the standard used (within the allowed tolerance), exit calibration mode by pressing the ON/OFF key.



Pressing the MODE key once increases the displayed result by 1 digit.



Pressing the ZERO/TEST key once decreases the displayed result by 1 digit.

CAL

Continue pressing the keys until the displayed result corresponds to the value of the standard used.

RESULT + x



If you press the ON/OFF key, the new correction factor is calculated and stored on the user calibration level.

: **:** Confirmation of calibration (3 seconds).

● Note

CAL

Factory calibration active.

cAL

Calibration has been effected by the user.

● Recommended calibration value

250 mg/l Pt-Co

● User calibration : cAL Factory calibration : CAL

The unit can be reset to delivery condition (factory calibration) as follows:



Press MODE and ZERO/TEST together and **hold depressed**.



Switch the unit on using the ON/OFF key. Release MODE and ZERO/TEST keys after approx. 1 second.

The following messages appear in the display in alternating mode:

SEL

The unit is in delivery condition.

CAL

(SEL stands for Select)

or:

SEL

The unit operates with a calibration performed by the user. (If the user calibration is to be retained, switch the unit off using the ON/OFF key.)

cAL



Factory calibration is activated by pressing the MODE key. The following messages appear in alternating mode in the display:

SEL

CAL



Switch the unit off using the ON/OFF key.

● User notes

E 10

Calibration factor "out of range"

E 70

Factory calibration not OK / deleted

E 71

User calibration not OK / deleted