



Dropper bottles for SPI handheldmeter



Instructions for correct measurement with handheldmeter! Use the caps on each channel !

During use:

1. Zero calibration:

- Before every measurement a zero calibration has to be done.
- You take two empty, clean cuvettes (Glass test tubes) with line the appropriate colour line and rinse off with the measured water.
- Fill these cuvettes with measurement water (Blanc or control).
- Dry the cuvettes on the outside.
- Place both cuvettes in each channel.
- Place the caps on each channel.
- Activate hand meter by pushing button "On/Off".
- Select by button "menu" the parameter you want to measure and confirm by pushing button "enter".
- Display shows a number.
- By pushing button "calib." you confirm the zero calibration.
- Take care, after zero calibration the number in display has to be 0.00. If so, the zero calibration is done correct.
- When you have a correct zero calibration you can continue your sample measurements.

2. Free available chlorine (Cuvette with red line):

- After zero calibration you can continue your sample measurement.
- The cuvette for Blanc measurement with cap is left in channel 1 (reference).
- The other cuvette must be empty and fill successively this cuvette with:
 - 5 drops "Start"
 - 5 drops "DPD solution"
 - The cuvette must be filled up to the first line in the cuvette with sampling water. (first line seen from bottom of cuvette).
 - Dry the cuvettes on the outside.
 - Put the cuvette with cap into channel 2 (measuring channel).
- Read the value from display within 10 seconds and write value down.



3. Total chlorine (Cuvette with yellow line):

- After measuring free chlorine you can start measurement of total chlorine.
- The cuvette for Blanc measurement with cap is left in channel 1 (Reference).
- Rinse the cuvette with the yellow /green line with the measured water
- Fill the cuvette with the yellow line with:
 - 5 drops "Totaal 2"
 - Pour just measured solution (pink) from free available into this cuvette.
 - Dry the cuvettes on the outside.
 - Put the cuvette with cap in channel 2 again.
- Read the value from display within 2 minutes and write value down.



Take care of time, also for this measurement you have to wait for 2 minutes.



Use just 1 cuvette (always the same cuvette) to fill with "Totaal 2". This reagent leave Potassium Iodide in cuvette which can affect your free available chlorine measurement.

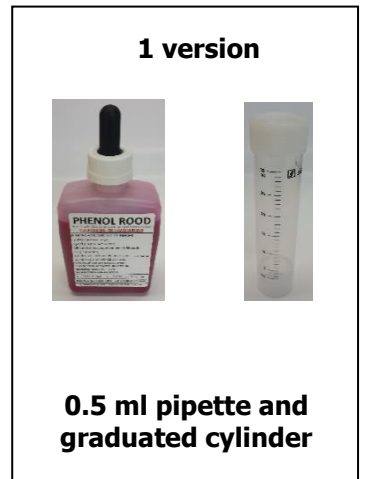


After finishing all measurements for total chlorine, the cuvettes have to be cleaned properly.



4. pH (Test tube with blue line):

- After zero calibration (see point 1) you can continue your sample measurement.
- The test tube with sample water and cap is left in channel 1 (Reference).
- Rinse a second test tube with the blue line with the sample water.
- Fill the supplied graduated cylinder with 25 ml of sample water
- Take with the pipette 0.5 ml Phenol Red liquid out of the 100 ml bottle Phenol Red
- Add this 0.5 ml Phenol Red to the sample water in the graduated cylinder
- Put the cap on the graduated cylinder
- Shake the graduated cylinder gently 3x upside down for a proper mixing
- Fill the blue marked cuvette :
 - up to the first line with the water from the graduated cylinder (First line seen from the bottom cuvette)
 - Dry the cuvette on the outside.
- Put the cuvette with cap into channel 2 (Measuring channel).
- The display shows the pH, wait until this value is stable and make note of this.



When 3 horizontal lines are shown in display, the measurement is out of range. By the colour of sampling water it easy to see if your sample is en pH too high or too low.

Pink pH 8,0 or higher
Yellow pH 6,8 or lower.

Important:

When the display shows a pH of 8.2 and or 6.8, the measurement is not reliable anymore. Please use a pH electrode to measure the correct pH.

5. Hydrogen peroxide:

- After zero calibration you can continue your sample measurement.
- The cuvette for blanc measurement with cap is left in channel 2 (reference)
- Rinse the cuvette with the blue line with the measured water.
- The other cuvette must be empty and fill successively this cuvette with:
 - 5 drops "PeO reg."
 - The cuvette must be filled up to the first line in the cuvette with sampling water. (first line seen from bottom cuvette)
 - Wipe the cuvette dry from outside.
 - Put the cuvette with cap into channel 1 (measuring channel)
- Read the value from display within 10 seconds and write value down.



During storage:

- DPD solution: Is ready and is perishable. Keep cool.
- Start solution: Is ready and is perishable. Keep cool.
- Total 2 solution: Is ready and is perishable. Keep cool.
- Phenol red solution: Is ready and is perishable. Storage at room temperature
- Hydrogen peroxide solution: Is ready and is perishable. Keep cool.

Dropper bottles with fluids for SPI handheldmeter:

- 3599050 DPD solution for handheldmeter 50ml
- 3599082 Start solution for handheldmeter 50ml
- 3599051 Total 2 solution for handheldmeter 50ml
- 3599083 Phenol red solution for handheldmeter 50ml
- 3530306 Hydrogen peroxide for handheldmeter 50ml



For cleaning the cuvettes use alcohol wipes.