

AKSO

qualidade que se mede

CHLORINE
Tester
AK40



INSTRUCTION MANUAL

1. SPECIFICATIONS

- **Measuring range:** 0.00 to 3.50 ppm
- **Resolution:** 0.01ppm
- **Accuracy:** $\pm (0.05\text{ppm} + 3\% \text{ of reading})$
- **Sample temperature:** 15 to 35 °C
- **Sample volume:** 10mL
- **Light source:** Light emitting diode
- **Wavelength:** 525nm
- **Measuring cell:** Glass cuvette
- **Automatic shutdown:** After 2 minutes
- **Display:** Oled
- **Languages:** English, Spanish and Portuguese
- **Operating temperature:** 0 to 50 °C
- **Operating humidity:** 10 to 90 %RH (non-condensing)
- **Power supply:** 9Vdc (1 battery 9V)
- **Dimensions (WxHxD):** 73 x 77 x 40 mm
- **Weight:** 120g (with battery)
- **Additional Information**

Adaptation of the US EPA 330.5 colorimetric method and the 4500-Cl G standard method for free and total chlorine measurements.

US EPA, DIN and ISO compliant for free and total chlorine measurements (4500-Cl G, DIN Standard, ISO 7393/2).

2. ACCESSORIES

Items included with the Chlorine Tester:

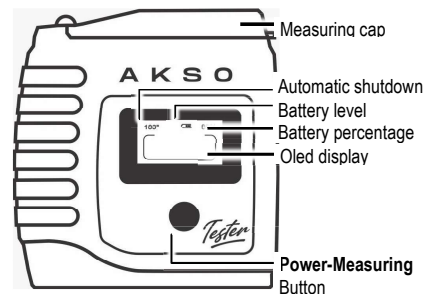
- 2 glass cuvettes with lids (Ø18.8 mm x 68mm) AK4551
- 1 flannel cloth
- 1 plastic carrying case
- 1 instructions manual

Items sold separately:

- Liquid reagent for free and total chlorine AK4001/AK4002
- Liquid reagent for free chlorine AK4003/AK4004
- Verification standard solution kit (0, 2 ppm) AK4011

Before use, check the instrument carefully. If you detect any abnormalities, contact AKSO.

3. OVERVIEW



4. OPERATING INSTRUCTIONS

MEASUREMENT

Preparation

- 1) Make sure that the temperature of the water sample to be analyzed is between 15 and 35°C to ensure the best accuracy in the chlorine measurement;
- 2) Wash the cuvette 3 to 4 times using the water sample that will be analyzed to set the container, avoiding reading deviations;
- 3) Fill the cuvette with 10mL of the sample. Notice the line in the cuvette body;
- 4) Close the cuvette with its lid;
- 5) Clean and dry the outer wall of the cuvette, using a wipe or soft towel paper, to eliminate residues, grease and moisture that may interfere with the measurement;

Zero point adjust

- 6) Press the **Power-Measurement** button to turn on the instrument. Will appear **Insert reference**;
- 7) Insert the cuvette into the compartment and close the measurement cover;
- 8) With the instrument in the VERTICAL position, briefly press the button. The sample will adjust at zero point;
- 9) The message: **Analyzing reference** will appear on display;
- 10) Wait until the display shows the message **Insert reagent**;

Reading – Free chlorine

While **Insert reagent** is on the display:

- 11) Open the measuring cover and remove the cuvette from the compartment;
- 12) Remove the cuvette cap and add 3 drops of DPD1 reagent and 3 drops of DPD2 to the sample;
- 13) Close the cuvette with its lid;
- 14) Clean and dry the outer wall of the cuvette, using a cleaning wipe or soft towel paper, to eliminate moisture or marking that may interfere with the measurement;
- 15) Insert the bucket into the compartment, close the measuring cap and with the instrument in the VERTICAL position, briefly press the **Power-Measurement** button. Free chlorine will be read in the sample. Wait;

Reading – Total Chlorine

- 16) Immediately after reading the free chlorine, open the lid and remove the cuvette from the compartment;
- 17) Open the cuvette and add 1 drop of DPD3 reagent, in the same sample that the free chlorine reading was performed;
- 18) Close the cuvette with its lid;
- 19) Clean and dry the outer wall of the cuvette, using a cleaning wipe or soft towel paper;
- 20) Insert the cuvette into the compartment, close the measuring lid, hold down the **Power-Measurement** button until you start a 150-second countdown on the display. Release the button;

- 21) After counting, total chlorine will be read in the water sample. Wait;
- 22) View the total chlorine measurement value in ppm on the Oled display.

NOTES:

- IMMEDIATELY, after each measurement, discard the sample and wash the cuvette.
- Be very careful when handling the cuvettes! Scratches, stains and marks can compromise the results.

5. ADDITIONAL FUNCTIONS

LANGUAGE SELECTION

To access the language selection, with the instrument turned off, perform the procedure below:

- 1) Briefly press the **Power-Measurement** button;
- 2) While displaying the startup screen, press and hold the **Power-Measurement** button; the display will show up **LANGUAGE** and the options Portuguese, English and Spanish will appear.
- 3) Short press the **Power-Measurement** button to cycle through the options;
- 4) Once selected as desired, keep the **Power-Measurement** button pressed;
- 5) The instrument will restart with the selected language.

6. MAINTENANCE

BATTERY INSTALATION/REPLACEMENT

When the display displays **Low Battery**, replace the battery as described below:

- 1) Turn off the instrument by holding down the **Power-Measurement** button until the display is switched off;
- 2) Remove the base clamping screw at the bottom of the instrument, using a "Philips" wrench;
- 3) Undock the base of the meter by pulling it carefully;
- 4) Removed the used battery from the compartment and disconnect it from the clip;
- 5) Plug the new battery into the clip and snap it into the compartment;
- 6) Replace the base of the instrument, observing its correct position;
- 7) Replace the Philips screw, tightening it without forcing it.

DISPOSAL OF BATTERIES AND ELECTRONICS



This product contains battery and electronic components. Do not dispose of them with other common household waste. Deliver them to the appropriate collection center in accordance with local guidelines. **Important:** The correct disposal of electronics and batteries prevents negative effects on the environment and on human health!

ERROR MESSAGES

MESSAGE	CAUSE	SOLUTION
Discharged battery	Battery without charge	Replace the battery
Low battery		
Concentration exceeded	Sample outside the measuring range of the instrument.	Perform a new reading within the measuring range of the instrument.
Inverted samples	Error in the measurement procedure.	Perform a new reading following the measurement procedure.
Damaged sensor	Failure to communicate with the sensor.	Contact Akso Technical Support.

Go to the product page on the Akso website and make sure your manual version is up to date.



This instrument comes with a 2-year* warranty against manufacturing defects.

*Legal warranty included
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