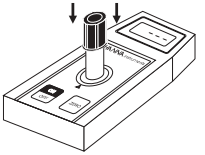
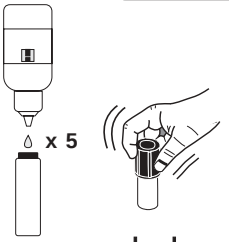
pH MEASUREMENT

- Fill the cuvet up to the mark with 10 mL of unreacted sample and replace the cap.

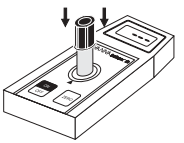


- Place the cuvet into the holder and ensure that the notch on the cap is positioned securely into the groove.
- Press ZERO and "SIP" will appear on the display.

- Wait for a few seconds and the display will show "-0.0-". Now the meter is zeroed and ready for measurement.



- Remove the cuvet and add 5 drops of the HI 93710 Phenol Red Indicator. Replace the cap and swirl the solution.



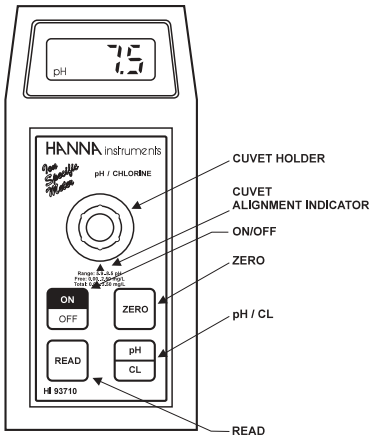
- Reinsert the cuvet into the instrument.
- Press the READ key and "SIP" will appear on the display during measurement.

- The instrument directly displays the pH measured value on the Liquid Crystal Display.

HI 93710 - pH & Chlorine

The HI 93710 meter measures both pH and chlorine (Cl_2, free and total) content in water and wastewater in the following ranges:

pH	5.9 to 8.5 pH units
Free Chlorine	0.00 to 2.50 mg/L (ppm)
Total Chlorine	0.00 to 3.50 mg/L (ppm).



SPECIFICATIONS

Range	pH	5.9 to 8.5
	Free Cl_2	0.00 to 2.50 mg/L
	Total Cl_2	0.00 to 3.50 mg/L
Resolution		0.1 pH/0.01 mg/L Cl_2
Accuracy		±0.1 pH ±0.03 mg/L ±3% of Cl_2 reading
Typical EMC Deviation		±0.2 pH ±0.02 mg/L Cl_2
Light Source		Light Emitting Diode @ 555 nm
Method		Adaptation of the EPA recommended DPD method 330.5 for chlorine analysis. The reaction with reagents causes a pink tint in the sample. For pH, Phenol red method. The reaction with reagents causes a red tint in the sample.

REQUIRED REAGENTS

Code	Unit	Description	Quantity
HI 93710-0	pH	Phenol red	5 drops
HI 93701-0	Free Cl_2	DPD	1 packet

HI 93711-0 Total Cl_2 DPD 1 packet

Liquid version (chlorine):

Code	Unit	Description	Quantity
HI 93701A-F	Free Cl_2	DPD1 indicator	3 drops
HI 93701B-F	Free Cl_2	DPD1 buffer	3 drops
HI 93701A-T	Total Cl_2	DPD1 indicator	3 drops
HI 93701B-T	Total Cl_2	DPD1 buffer	3 drops
HI 93701C-T	Total Cl_2	DPD3 solution	1 drop

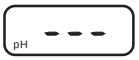
REAGENT SETS

HI 93701-01 Reagents for 100 free chlorine tests
HI 93701-03 Reagents for 300 free chlorine tests
HI 93710-01 Reagents for 100 pH tests
HI 93710-03 Reagents for 300 pH tests
HI 93711-01 Reagents for 100 total chlorine tests
HI 93711-03 Reagents for 300 total chlorine tests
HI 93701-F Reagents for 300 free chlorine tests (liquid version)
HI 93701-T Reagents for 300 total chlorine tests (liquid version)

For other accessories see page 48.

MEASUREMENT PROCEDURE

- Turn the meter on by pressing ON/OFF.
- The meter will automatically default to pH measurement mode.
- When the LCD displays "- - -", it is ready.

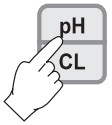


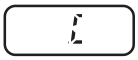
pH MEASUREMENTS

In order to perform pH measurements, follow the procedure on page 46.

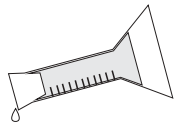
CHLORINE MEASUREMENTS

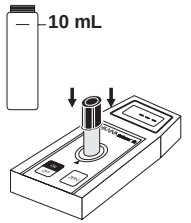
- Press the pH/CL range key to select the chlorine scale. "C" will appear on the LCD.
- Follow the procedures on page 34 and 36.



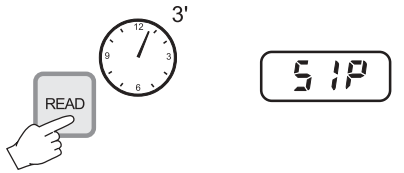


Note: Free and total chlorine have to be measured separately following the indicated procedure with fresh unreacted samples if both values are requested.





- Fill a cuvet with 10 mL of the reacted sample up to the mark and replace the cap. This is the sample.
- Insert the sample into the instrument.
- Wait for 3 minutes and then press READ. "SIP" will appear during measurement.



- The instrument directly displays concentration in µg/L of iron on the Liquid Crystal Display.

Note: For better accuracy wash glassware with HCl 6N.

INTERFERENCES

Interference may be caused by:
Cadmium above 4.0 mg/L
Chromium^{3+} above 0.25 mg/L
Chromium^{6+} above 1.2 mg/L
Cobalt above 0.05 mg/L
Copper above 0.6 mg/L
Cyanide above 2.8 mg/L
Manganese above 50.0 mg/L
Mercury above 0.4 mg/L
Molybdenum above 4.0 mg/L
Nickel above 1.0 mg/L
Nitrite ion above 0.8 mg/L
Sample pH should be between 3 and 4 to avoid developed color to fade or turbidity.