

PH-8414 METER PORTABLE PH/ME/°C METER



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General description

The PH-8414 PH meter has been specially designed for the maximum facility of use. The handy key board for the selection of the various functions. The possibility of automatically correcting errors in measurement due to temperature .The display on the front panel reveals the temperature and PH or mV readings taken by the instrument. Moreover, PH- 8414 features a low battery indicator .

Specifications

Range:	PH	0.00—14. 00PH
	mV	- 1999~1999mV
	Temperature	0~100°C
Resolution:	PH	0.01PH
	mV	1mV
	Temperature	Rc
Accuracy:	PH	+ 0.01PH
	mV	±0.1% of the reading ±1 digit
	Temperature	±0.4°C
Input Resistance:	1012Q	
Calibration:	1 point or 2point	
Power:	9V battery	
Dimensions:	166X76X46mm	
Operating Conditions : Temperature 5~60°C Humidity 95% maximum		
No disturbance of magnetic field or distinct tremble around instrument.		
Weight:	210g	

The front panel

Here is a brief description of the functions performed by each of the keys present on the keyboard.

ON/OFF: this is used for switching the instrument On and Off.

PH: this indicates the PH measurement revealed by the electrode.

mV: this indicates on the display panel the mV value revealed by the electrode.

°C: this indicates the temperature value revealed by the probe. This is the value used by the circuit for the **PH** measurement compensation.

LIGHT: lightens **LCD** the back light.

On the lower part of the front panel, two trimmers are found for the regulation of the instrument.

Their use will be described in chapter.

Interface and battery installation

This instrument has 2 functional interfaces and each of them is only to fit with its own plug.

1. PH electrode interface (or ORP) 2. temperature sensor interface Battery replace: the " •I " symbol on the left of the LCD to indicate a low battery condition .Battery must be replace. Open the cap of battery on the back of the instrument and replace of the old battery with new battery. Attention to the anode and cathode of battery.

Operation

PH MEASUREMENTS:

Turns on the PH electrode and the temperature sensor . Turn the meter ON by pressing the ON/OFF key.

Remove the PH electrode protective cap, then submerge the PH electrode and the temperature probe into the sample to be tested.

Stir gently and wait for the stability symbol. The display will show the PH value automatically compensated for temperature.

After use, rinse the electrode with clean water, replace the electrode protective cap.

ORP MEASUREMENTS:

Oxidation Reduction Potential(ORP) measurements provide a quantification of the oxidizing or reducing power of the sample tested.

Connect the ORP electrode to the BNC connector.

To enter the " mV" mode turn the instrument ON and press the mV key until the display changes to mV.

Then submerge the ORP electrode into the sample to be tested and allow time for the reading to stabilize.

TEMPERATURE MEASUREMENTS:

Make sure the temperature probe is connected to the meter.

Turn the instrument ON and press the °C key to select the temperature mode.

Dip the temperature probe into the sample, allow the reading to stabilize and read the temperature value.

PH calibration

Pour a small quantity of PH6.86 and 4.01(or PH9.18)solution into clean beakers.

For a particularly accurate calibration, it is advised to use two beakers for each buffer solution .the first is to be used for rinsing the electrode, the second is to be used for the calibration, in this way, the risks of contaminating the buffer solution are reduced to a minimum.

Switch on the instrument. Press the PH key to display the PH measurement.

Immerse the PH electrode and temperature probe into PH 6.86 buffer solution and then shake briefly.



