PHB-51 Portable pH Meter Operation Manual

1. Specification

Parameters: pH, mV, Temperature

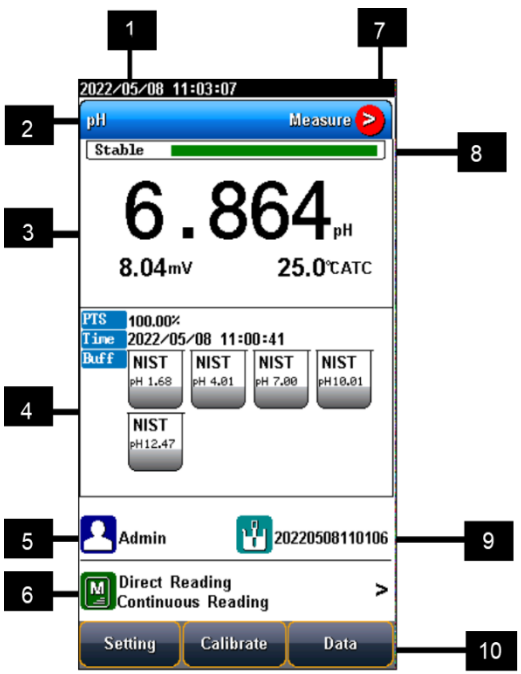
pH level: 0.001pH

pH range: (-2.000 ~ 20.000)pH

mV range: (-2000.00 ~ 2000.00)mV

Temperature range: (-10.0 ~ 135.0)℃

2. Screen Icons



2.1. Annotation

No.	Explanation
1	System time
2	Measurement parameters
3	Measurement information
4	Calibration information
5	User ID
6	Method management
7	Power information
8	Reading State
9	Sample ID
10	Function buttons

2.2. Symbol

Symbol	Explanation
Stable	Reading status
PTS	The percentage slope of the pH electrode calibration data
BUFF	The standard buffer solution for calibration
Auto Mode	Auto-recognition of Standards
Manual Mode	Manual - recognition of Standards
No.	Number
ATC	Auto Temperature compensation
MTC	Manual temperature compensation

Symbol	Explanation
E	Measured potential in mV
RmV	The relative potential value (potential value relative to hydrogen potential) in mV
Offset	Offset potential, in mV
Time	Time to Calibrate Electrodes
	Measurement method management, display the current method information
	Standard solution for pH electrode calibration
	User ID
	Sample ID

3. pH Operation Guide

3.1. Preparation

1 . Install the components of the instrument and connect the electrode.

2 . Prepare standard buffer solutions such as pH 4.01, pH 7.00, pH 10.01 standard solutions.

3 . Remove the protective cap at the lower end of the pH electrode, pull down the rubber cover at the upper end of the electrode. Expose the top hole, rinse the

electrode with distilled water, and dry with filter paper.

4 . Press the power key to turn on the instrument.

5 . Select measurement method:

- The default measurement method of the instrument is "No.001 direct reading measurement method", if adopting the default method for measurement, this step can be omitted.
- Enter the measurement method management. You can select the method in the method list or create new methods as required.

3.2. Calibration

1 . Setting.

1) Set the parameters (e.g. pH).

2) Select standard solution group (e.g. NIST pH 4.01, pH 7.00 and pH 10.01).

3) Set to automatic recognition.

2 . Enter to calibrate the pH electrode through the "Calibrate"-"pH Calibration".

3 . Put the cleaned electrode into pH 4.01 standard solution, wait for the instrument to display "Auto Mode Matched", after the reading is stable, press "Start".

4 . If only 1-point calibration is required, after 1-point calibration is completed, press the "<Calibration" key to complete the calibration.

5 . If multi-point calibration is required, please replace the pH7.01 and pH10.01 standard buffer solutions. After cleaning the electrode, put the electrode into the standard solution. After the instrument recognizes it successfully, the instrument reads stably, press the soft function key "Next Point" to complete the calibration.

6 . After completing the calibration, press the "<Calibration" key to complete the calibration, save the calibration results and end the calibration, directly enter the start interface. If the checked standard solution group is 8, automatically end the calibration after eight points of calibration.

3.3. Measurement

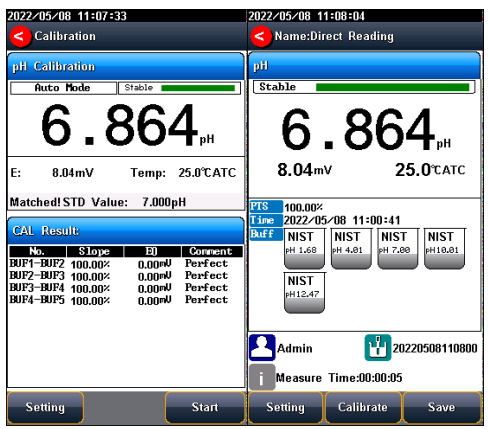
1 . Setting.

1) Set the parameters (e.g. pH).

2) Set the reading mode (e.g. continuous reading, auto-reading, or timed format).

2 . Select "parameter setting" - "reading mode setting" to modify the reading mode and balance conditions; Select "parameter setting" - "pH parameter" to set pH electrode information, pH standard solution group management, pH alarm limit setting and pH calibration reminder setting information and so on.

3 . Press Measure to enter the measurement interface. After the reading is stable (the data is stable, the fixed mark is full), and then measure.

4 . Press the "Save" to save the measurement results and print the result.

Note: For accurate measurement, please calibrate and measure at the same temperature.