



# **pH Water Quality Sensor**

**(Model: MW-pH101)**

# **Manual**

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Zhengzhou Winsen Electronic Technology Co., Ltd

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## MW-pH101 water quality detection sensor

### Profile

The MW-pH101 sensor is an electrochemical PH water quality detecting sensor. The H<sup>+</sup> in the solution to be tested generates a voltage signal by acting on the electrode of the sensor, and the magnitude of the voltage is proportional to the concentration of H<sup>+</sup>, The corresponding pH value of the solution can be obtained by measuring the voltage signal.



Fig1. Sensor image

### Sensor characteristics

Low power consumption, wide linear range, excellent repeatability and stability.

### Main application

It is widely used for water quality pH detection in laboratory research, water plant water supply, waste-water treatment, aquaculture, farmland irrigation and other fields.

### Technical indicators

Items	Parameter
Detection object	Solution
Measure Range	1~14
Sensitivity	1.1-1.6 mV/pH
Response time	≤180 s
Output linearity	Linear
temperature range	0°C~50°C
Internal resistance	<350 MΩ
Service life	1year

Stable 1

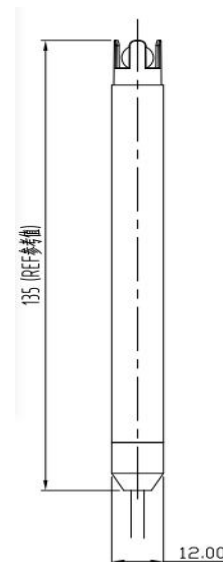
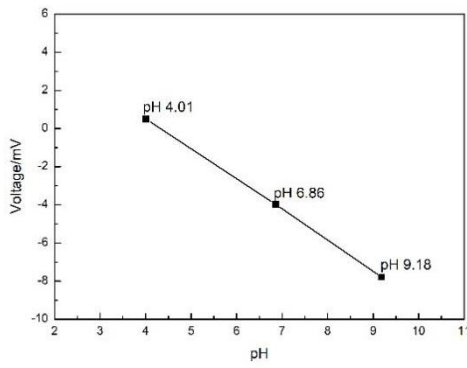
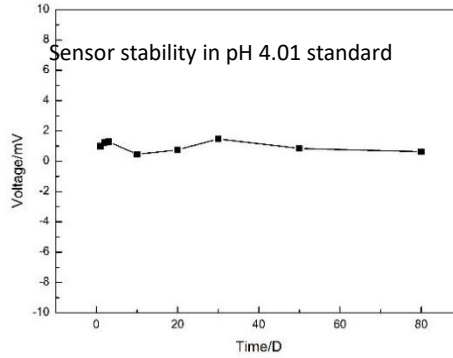


Fig2. Sensor Structure

### Sensor characterization



**Fig3. Sensor linear curve**



**Fig4. Sensor stability curve**

**Instructions**

1. Remove electrode protective cover from sensor port and soak it in deionized water for 8 hours.
2. Prepare pH standard buffer solution for sensor calibration.
3. Connect the sensor plug to the module or pH meter and calibrate in standard buffer solution.
4. After the calibration is complete, place the sensor in the solution to be tested for testing.
5. Clean the sensor terminals in time after use.

**Line connection**

**Stable 2**

Cable color	lead definition
Blue (center core)	positive
Network cable (shielded network cable)	negative

**Precautions**

1. When the sensor is initial use or used again after a long-term storage, the electrode port should be immersed in deionized water for 8 hours for activation.
2. The sensor tip should be kept clean.
3. The sensor should be avoided long term immersion in acid fluoride solution.
4. The parts in contact with the sample are material of ABS, silicone rubber and glass. Please confirm that your solution is not harmful to the above materials before measuring the sample.
5. The sensor electrode end should be kept clean during long-term storage and put back in the box and stored at room temperature.

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