



ORP Water Quality Sensor

(Model: MW-ORP101)

Manual

Version: 1.1

Valid From: 2019-05-11

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MW-ORP101 water quality detection sensor

Profile

MW-ORP101 sensor is a primary battery type ORP water quality detection sensor. Using the relationship between the ORP value of the test solution and the measured potential difference, the ORP value of the solution to be tested is determined by the potential difference measured by the working battery composed of the electrode and the counter electrode in the solution to be measured through the sensor.



Fig1. Sensor image

Sensor characteristics

High precision, fast response, good stability, small size, low power consumption, easy to carry

Main application

It is widely used for ORP value detection in laboratory research, water supply, waste water treatment, aquaculture, farmland irrigation and other fields

Technical indicators

Items	Parameter
Detection object	Solution
Measure Range	-2000 mV ~ + 2000
Resolution	1 mV
Response time	≤120 s
Material	ABS
Working temperature	0°C ~ 50°C
Service life	1year

Stable 1

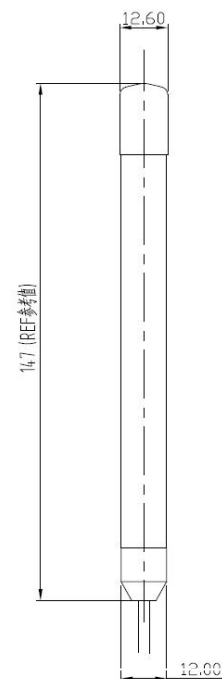


Fig2. Sensor Structure

Sensor characterization

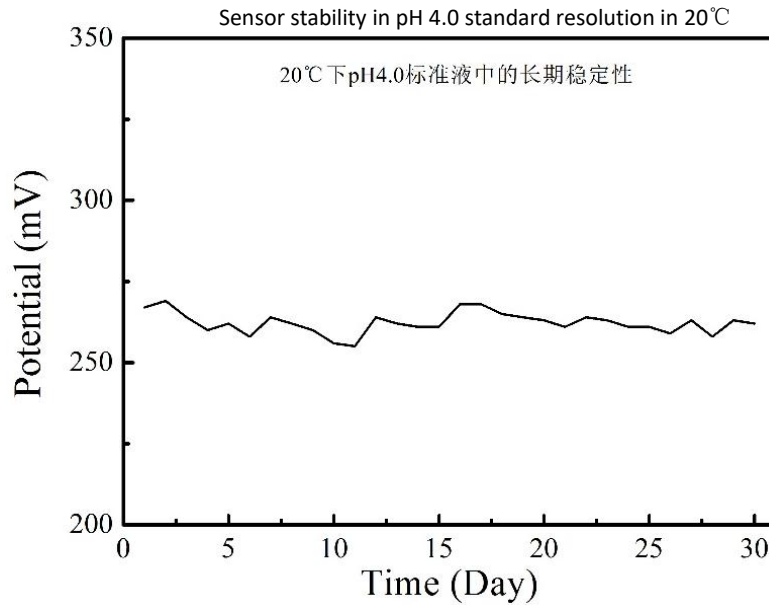


Fig4. Sensor stability curve

Instructions

1. Remove electrode protective cover from sensor port and soak it in 3M KCL resolution for 8 hours.
2. After soaking, rinse the sensor electrode end with a small amount of pure water or de-ionized water.
3. Connect the sensor port to the ORP test instrument and place it in the solution to be tested for testing after being stabilized for 3 minutes.
4. After the test is completed, rinse the sensor electrode end with a small amount of pure water or deionized water.
5. Dry the cleaned sensor, put a protective cover on the electrode end, and store it at room temperature.

Line connection

Stable 2

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

Precautions

1. The protective cover must be removed before using the sensor
2. If there is white crystal on the sensor electrode end, rinse it with de-ionized water.
3. When the sensor is initial use or used again after a long-term storage, the electrode port should be immersed in 3M KCL resolution for 2 hours for activation.

4. If there are contaminants on the sensor electrode end, it can be treated with corresponding reagents, see Table 3 for details.

Pollutants	Detergent
Metal oxide	Less than 1M dilute hydrochloric acid
Organic oils	Weakly Alkaline Detergent
Resin polymer substance	Alcohol (Analytical pure)
Pigment substances	Hydrogen Peroxide(3%)

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