Online Digital pH Sensor

User Manual

Preface

Thank you very much for choosing our company!

Please read this manual carefully before using this product, and save it for reference.

Please observe the operating procedures and precautions in this manual.

To ensure that the after-sale protection provided by this instrument is effective, please do not use and maintain the instrument in any way other than specified in this manual.

As the failure to observe the precautions specified in this operation manual, any failures and losses caused are not covered by the manufacturer's warranty, and the manufacturer does not assume any related responsibility. Please keep all documents in a safe place. If in doubt, please contact our after-sales service department.

When receiving the instrument, please carefully open the package and check whether the instrument and accessories are damaged due to shipping. If damage is found, please contact FLUIDINGS after-sales service department and keep the packaging for return.

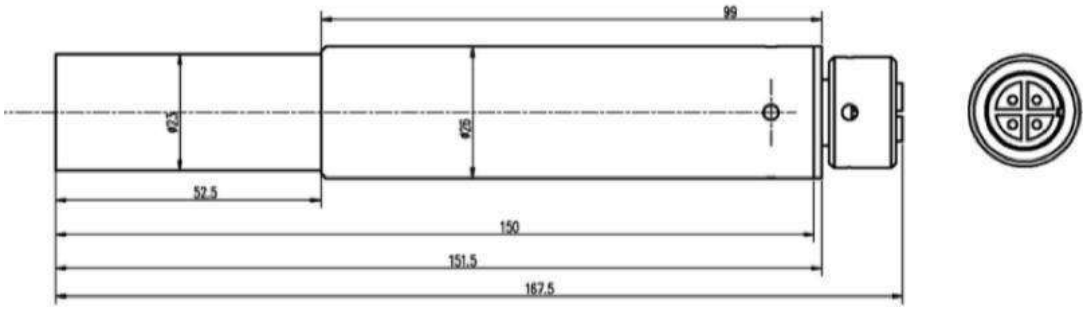
When the instrument fails, please do not repair it by yourself, please contact our after-sales service department.

Overview

Our digital pH sensor adopts industrial online electrode and built-in temperature sensor, which can automatically compensate for temperature, which is suitable for online long-term monitoring environment. The sensor adopts RS485 output and supports Modbus, which can realize networking and system integration without a controller.

Features

Range: 0-14 pH
Accuracy: 0.1pH
0 ~ 50 ℃; IP68 protection, water depth within 10 meters
Built-in temperature sensor, automatic temperature
compensation Digital sensor, support RS-485, MODBUS protocol
Adopt high-performance industrial online electrode, can work stably for a long time



Dimensions

Technical parameter

Item	Parameters
Model	BH1701D
Range	0~14pH
Precision	0.01Ph
Resolution	0.01
Deepest depth	Underwater 30m
Protection level	IP68
Maximum operating pressure	3bar
Storage temperature	0~ 60 °C

Temperature range	0~ 50°C
Sensor interface	Support RS-485, MODBUS protocol
assembly	Input type
Power information	DC 5~12V, current <50mA
size	Φ 26 * 167.5 mm
Probe cable length	10 meters (default), can be customized
Housing material	POM，SS316
calibration	Three-point calibration

Maintenance methods and common problems

Maintenance schedule and method

Maintenance schedule

It is recommended to periodically calibrate or clean the sensor surface according to the actual application scenario. The calibration sequence for the three-point calibration is that the first point calibration is at pH 4.0, the second point calibration is at pH 6.86, and the third point calibration is at pH 9.18 in a buffer solution. Refer to the MODBUS document for specific calibration methods.

Maintenance tasks,	Recommended maintenance frequency
Calibrate the sensor (if required by the competent authority)	According to the maintenance schedule required by the competent authority

Maintenance method

Sensor maintenance

1) External surface of the sensor: Wash the external surface of the sensor with tap water. If debris remains, wipe it with a moist soft cloth.

2) Check the cable of the sensor: The cable should not be tight during normal work, otherwise the internal wires of the cable will be easily broken and the sensor will not work properly.

3) Sensor storage: When the sensor is not in use, you should fasten the black plastic cap and check whether the sponge inside is wet. If it is not wet enough, please add 3mol / L potassium chloride solution and let the electrode be stored in the solution with potassium chloride.

Precautions

The probe contains sensitive optical and electronic components. Ensure that the probe is not subject to severe mechanical impact. Damage to the sensor due to impact or

manpower will not be covered by the warranty. Water ingress to the sensor due to replacement of the pH electrode is not covered by the warranty.

Frequently Asked Questions

Error	Possible causes	Solutions
The operation interface cannot be connected or the measurement results are not displayed	Controller and cable connection error	Reconnect the controller and cables
	Cable failure	Please contact us
Measured values are too high, too low, or the values remain unstable	Measurement shifted	**Recalibration**
	Water has entered the product	Please contact us
	The pH electrolyte is exhausted	Replace the pH electrochemical part

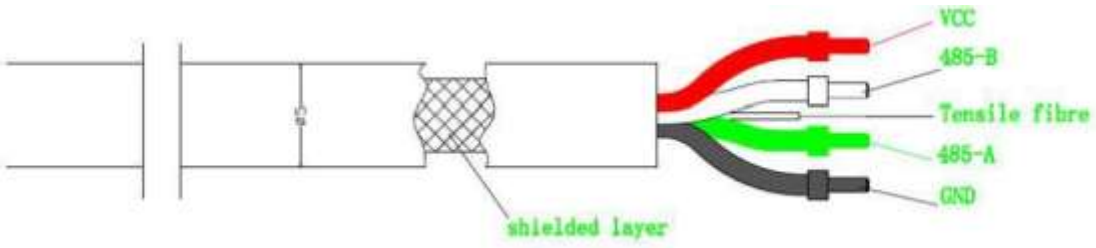
Cable definition

pH probe size
26x167.5 mm(Φ xL)
Power information

Power supply must be DC 5-12v + / - 5%, current < 50mA

Cable information

4 wire awg-24 or awg-26 shielding wire. Od = 5mm



1. Red wire - power supply (VCC)
2. White line - 485 data (485 A)
3. Green line -- 485 data (485 B)
4. Black wire - ground wire (GND)
5. Bare wire - shielding layer

Quality assurance

Our company assures its first-hand buyers that there will not be any product defects caused by substandard materials or factory manufacturing in the 3 months after shipment. If a defect is found within the 3-month warranty period, FLUIDINGS Electronics promises to repair or replace the defective product or return the payment in addition to the first shipping and related formalities. Any product repaired or replaced during the warranty period will only enjoy the remaining warranty period of the original product.

This warranty does not apply to consumables such as consumable parts (including but not limited to lamps, pipes, etc.).

Contact FLUIDINGS or your agent to begin technical support during the warranty period.

After receiving the customer's questions about product quality, our company will confirm whether the product needs to be repaired within two weeks; products that have not been approved for repair cannot be returned.

limit

This warranty does not cover the following:

- Damage caused by force majeure, natural disasters, social unrest, war (published or unpublished), terrorism, civil war, or any government coercion
- Damage caused by improper use, negligence, accident or improper application and installation
- Freight charges for shipping the goods back to FLUIDINGS Sensing Technology
- Expedited or express shipping for parts or products covered by the warranty
- Travel expenses for local warranty repairs

This warranty covers all aspects of our company's warranty regarding its products.

This warranty constitutes the final, complete and exclusive statement of the terms of the warranty, and no one or agent is authorized to formulate other warranties in the name of FLUIDINGS Electronics.

The remedies such as repair, replacement, or refund of the payment as described above are special cases that do not violate this quality guarantee. The remedies such as replacement or refund of the payment are targeted at our products. Based on strict liability or other legal theories, FLUIDINGS Electronics is not responsible for any other damage caused by product defects or negligent operation, including the subsequent damage caused by causality with these situations.