

Digital TDS sensor

Overview

The BH3701D digital TDS sensor adopts a new generation of four-electrode technology with a wide measurement range and can automatically switch the range. Automatic temperature compensation for the changing temperature of the water body. Strong anti-interference ability, the electrode can adapt to a variety of harsh water environment, the electrode will not be polarized in long-term use, reducing maintenance costs.

Features

- Small size, can be assembled in a variety of ways
- Wide measuring range, automatic switching of measuring range
- Built-in temperature sensor, automatic temperature compensation
- Will not be polarized, four/six electrode technology



Technical Parameter

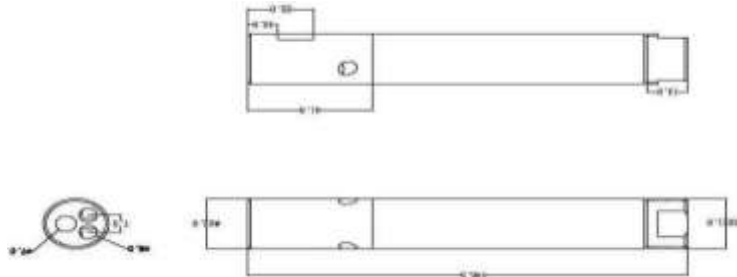
Product name	BH3701D Digital TDS sensor
Principle	Electrode method
Response time	<2 sec
Range	0-30ppt
Accuracy	±1%
Resolution	1
Temperature range	0~ 50°C
Storage temperature	-20~ 80°C
Output signal	RS-485 、 MODBUS protocol
Calibration method	1 or 2 point calibration

Specifications

waterproof level	IP68
Max pressure	3bar
Housing material	316/POM

Dimensions	Φ22 X 165mm
Power information	,
Cable length	Standard 5 meters

Dimensions



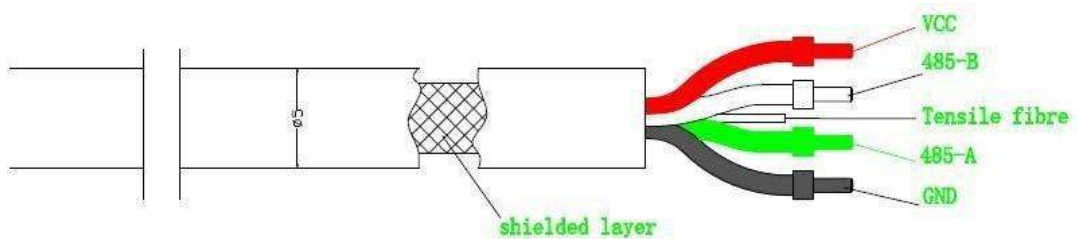
Cable power

1、Power supply information

The power supply must be DC 6-12V +/-5%, current <50mA

2、Cable information

4 wire AWG-24 或 AWG-26 shielding wire. OD=5mm



- ① Red wire— VCC
- ② White wire—RS485_B
- ③ Yellow wire---RS485_A
- ④ Black wire--- GND
- ⑤ Bare wire---shield

Installation

Before installation, please check the appearance of the cables for damage, and disperse the cables.

- 1、 When using the submersible sensor, avoid the sensor hitting the wall or other facilities caused by the water flow. If the water flow rate is too fast, the sensor must be fixed.
- 2 、 There should be no obstructions in front of the measurement. For example, fluorescence sensors should be avoided from light.

- 3、 The water depth at which the sensor is installed should not exceed 2 meters from the horizontal, and the water depth at the installation location should not be less than 30 cm according to the fluctuation of the water flow. (Adjustable according to the measured water body)
- 4 、 The sensor should be installed in a location where there is no air bubbles to prevent air bubbles from affecting the measurement data of the sensor.。
- 5 、 Do not use the sensor's own cable to hoist the sensor, and install a cable protection device to prevent excessive tension between the cable and the sensor, causing the cable to break.
- 6 、 The sensor should not be installed with the measuring side facing upwards, it can be installed vertically downwards or horizontally.
- 7 、 If you use this product in a flow cell, please consult the company's sales staff to confirm the specific installation requirements.

Maintenance methods and common problems

1、 Maintenance tasks

In order to obtain continuous and stable measurement results, regular maintenance is required. Maintenance and maintenance mainly include cleaning of the sensor, checking whether the sensor is damaged, etc. Check the relative status of the sensor during maintenance and inspection to reduce the failure rate and increase the service life.

2. Maintenance method

- ①The outer surface of the sensor: clean the outer surface of the sensor with tap water. If there are still debris remaining, wipe it with a moist soft cloth. For some stubborn dirt, you can add some cleaning fluid to the tap water to rinse it.
- ②Check the cable of the sensor: the cable should not be taut during normal operation, otherwise the wires inside the cable may break easily, causing the sensor to fail to work normally.

③Check whether the electrode or light window of the sensor is dirty, whether the cleaning brush is normal, and whether the electrode is normal.

④Check whether the cleaning brush (if any) of the sensor is damaged and whether it can work normally.

⑤Continuous use for more than 18 months, (as the case may be) return to the factory to replace the dynamic sealing device.

2、Precautions

The sensor contains sensitive optical components and electronics. Make sure that the sensor is not subject to severe mechanical shocks. The sensor is not allowed to be disassembled and maintained by non-professionals.

4、Frequently Asked Questions

Problems	Possible Reason	Solution
The operation interface does not respond	Cable failure	Reconnect the cable
Cannot display measured value	Controller and cable connection error	Reconnect the controller and cables
Unstable measured value	Sensor window is attached to foreign objects	Clean the surface of the sensor window
The measured value is negative	Air bubbles in the sensor light window	Clean the surface of the sensor window
Abnormal measurement value	Contact after-sales	Carry out calibration solution

Quality assurance

Dear customer:

First of all thank you for choosing to buy our products!

In order to ensure product quality, clarify the product quality responsibilities of both the purchaser and the seller, ensure that the product quality is qualified, and ensure product safety, the following guarantees are specially made:

The conductivity sensor provided by our company is guaranteed for one year from the date of leaving the factory, and the repaired or replaced product will only enjoy the remaining warranty period.

After receiving the product quality problem provided by the customer, our company will confirm whether the product needs repair within 24 hours; if the repair permit is not obtained, the user must not send the product back without authorization.

In principle, the quality of the products provided by our company shall be implemented in accordance with the technical standards stipulated by the purchaser. When the purchaser has no prescribed technical standards, our company will follow the current national standards or implement relevant factory standards, and ensure the stability and gradual improvement of product quality.

The supplier guarantees that the products supplied meet the statutory quality standards, and are responsible for the quality of the products, and that the product packaging and registered trademarks are in compliance with the relevant national regulations.

The purchaser shall store the product in strict accordance with the storage conditions required by the product, and the purchaser shall be responsible for the product quality problems caused by the poor storage and maintenance of the product by the purchaser

Warranty limit

The warranty does not include the following

- Product damage caused by force majeure factors such as natural disasters, riots, and wars.
- Damage caused by user's improper use, negligence, accident or improper use.
- Costs incurred in the delivery of product parts during the warranty period.
- Travel expenses incurred for repairs to the factory outside the warranty period.