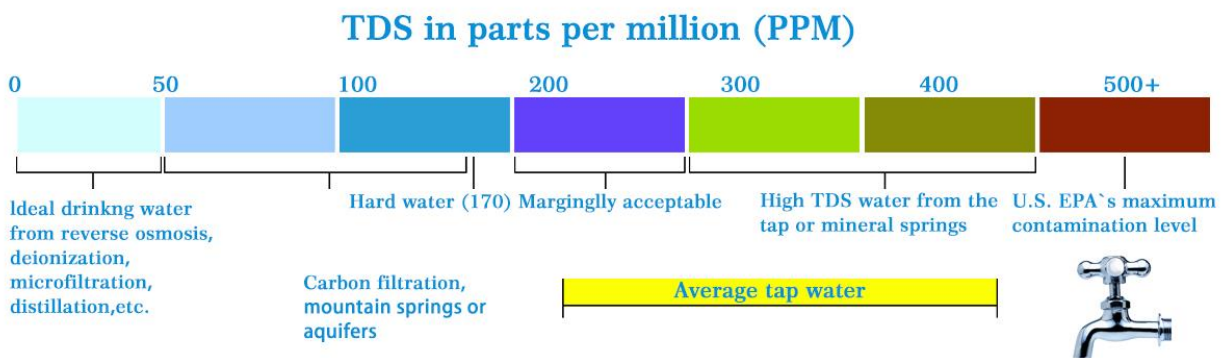
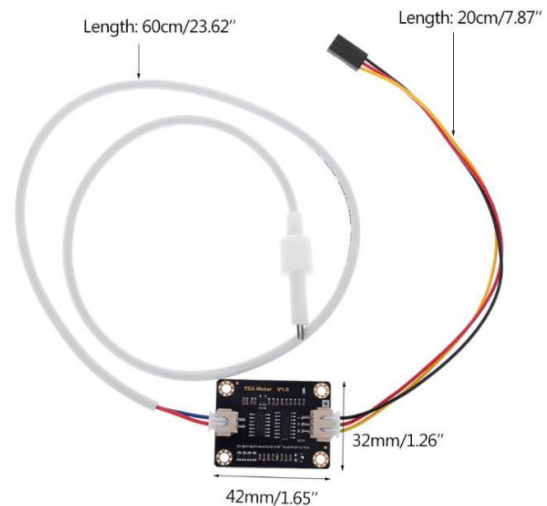


Analog TDS Sensor/Meter for Arduino

This is an Arduino-compatible TDS Meter Kit for measuring TDS value of the water, to reflect the cleanliness of the water. It can be applied to domestic water, hydroponic and other fields of water quality testing. You may also check Liquid Sensor Selection Guide to get better familiar with our liquid sensor series.

TDS (Total Dissolved Solids), indicates how many milligrams of dissolved solids are dissolved in 1 liter of water. Generally, the higher the TDS value, the more dissolved substances contained in the water and the less clean the water. Therefore, the value of TDS can be used as one of the basis for reflecting the cleanliness of water.

The commonly used TDS testing equipment is a TDS pen. Although it is cheap and easy to use, it cannot transmit data to the control system for long-term online monitoring and water quality analysis. Using a special instrument, although it can transmit data and has high accuracy, it is very expensive.



This product supports 3.3 ~ 5.5V wide voltage input, and 0 ~ 2.3V analog voltage output, which makes it compatible with 5V or 3.3V control systems or boards. The excitation source is AC signal, which can effectively prevent the probe from polarization and prolong the life of the probe, meanwhile can help increase the stability of the

output signal. The TDS probe is waterproof, it can be immersed in water for long time measurement.

This product can be used in water quality application, such as domestic water analysis and hydroponics. With this product, you can easily DIY a TDS detector to reflect the cleanliness of water to protect your health!



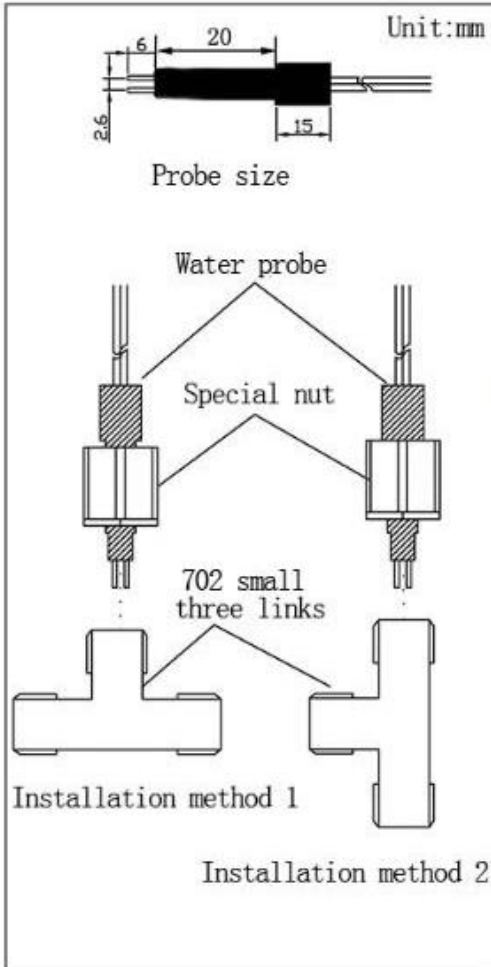
Attention:

- 1.The probe can not be used in water above 55 degrees centigrade.**
- 2.The probe can not be left too close to the edge of the container, otherwise it will affect the reading.**
- 3.The head and the cable of the probe are waterproof, but the connector and the signal transmitter board are not waterproof. Please be careful.**

Specification

- **signal Transmitter Board**
 - Input Voltage: 3.3 ~ 5.5V
 - Output Voltage: 0 ~ 2.3V
 - Working Current: 3 ~ 6mA
 - TDS Measurement Range: 0 ~ 1000ppm
 - TDS Measurement Accuracy: $\pm 10\%$ F.S. (25 °C)
 - Module Size: 42 * 32mm
 - Module Interface: PH2.0-3P
 - Electrode Interface: XH2.54-2P
- **TDS probe**
 - Number of Needle: 2
 - Total Length: 83cm
 - Connection Interface: XH2.54-2P
 - Color: White
 - Other: Waterproof Probe

Water probe instructions



Instructions

1. This probe is used for RO water purifier water purification test. It must be combined with 702 three-way and installed in the clean water outlet of RO membrane to test the real-time water purification conductivity signal. After the A/D conversion, the corresponding PPM value can be obtained.
2. It can be installed according to the two methods on the left, and the test results are consistent.
3. Use a matching nut when installing and tighten to prevent water leakage.
4. Probe other parameters look at the table below

Insulation resistance between two poles	$\geq 50M$ (When not in contact with water)
Detecting medium temperature	$\leq 70^{\circ}C$
Recommended operating voltage	$\leq 5V$ (This voltage refers to the voltage applied across the probe)
Recommended operating current	$\leq 50\mu A$ (The lower the current value, the longer the probe life)
Tips	Specific voltage & current are flexibly controlled by the circuit designer

Note:

The following formula is the relationship between TDS and voltage output, KValue is the calibration coefficient (standard value/measured value), about 1.8 of our manufacturer)

$$\text{tdsValue} = (133.42 * \text{compensationVolatge} * \text{compensationVolatge} * \text{compensationVolatge} - 255.86 * \text{compensationVolatge} * \text{compensationVolatge} + 857.39 * \text{compensationVolatge}) * 0.5 * \text{kValue}$$