Datasheet

Conductivity Sensor

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Conductivity Sensor

Supmea conductivity sensor is a high-quality sensor with excellent electrical conductivity and corrosion resistanceis, it is widely applied for continuous monitoring and measurement of EC value or TDS value or Resistivity value and temperature in the solution in the industry of thermal power, chemical fertilizer, environmental protection, metallurgy, pharmacy, biochemistry, food and water etc.

Applications

- Thermal power
- Chemical fertilizer
- Environmental protection
- Aquaculture
- River sewage
- Seawater salinity
- Metallurgy
- Pharmacy
- Biochemistry

Conductivity Sensor

Features

- Stainless corrosion-resistant alloy conductivity.
- Corrosion resistance, high stability, suitable for continuous monitoring of fresh water and sea water.
- Electrode is made of high quality low-noise cable, make signal output length greater than 40 meters or more, without interference.
- Multiple temperature compensation choices include: NTC22K and other temperature compensation options.
- Integrated parallel graphite structure, stable and accurate constant. Simple structure, easy to clean.

Parameters	TDS6012				
Electrode constant	0.01	0.1	1.0	10.0	30.0
Pressure	0.4MPa	0.4MPa	0.4MPa	0.4MPa	0.4MPa
Range	0-20μS/cm	0-200μS/cm	0-2000μS/cm	0-20000μS/cm	30-600mS/c
Connection	NPT1/2,NPT3/4 clamp low-through	NPT1/2,NPT3/4 clamp flow-through	NPT1/2,NPT3/4, clamp flow-through	NPT3/4 flow-through	NPT3/4 flow-through
Material	304 or 316L or titanium alloy	304 or 316L or titanium alloy	304 or 316L or titanium alloy or platinum	Polysulfone	Polysulfone
Application	Power plant Water treatment	Power plant Water treatment	Water treatment	Water treatment	Acid cleaning

Parameters	TDS7001/TDS7002			
Electrode constant	0.01	0.1	1.0	Four-pole type
Pressure	5bar	5bar	7bar	5bar
Range	(0.01~20)μs/cm	(0.1~200)μs/cm	(1~2000)μs/cm	10μs/cm~500ms/cm
Connection	G3/4 （NPT3/4 optional）	G3/4 （NPT3/4 optional）	G3/4 （NPT3/4 optional）	NPT3/4 （G3/4 optional）
Material	304 stainless steel	316 stainless steel	316stainless steel	PBT
Application	Water treatment	Water treatment	Water treatment	Water treatment Acid-base measurement

Parameters	TDS7003
Electrode constant	1.0
Pressure	3bar
Range	0.1us/cm~70ms/cm
Installation	G3/4/NPT3/4,pipeline/flow-through/submerged installation
Material	PPS+POM+Graphite

Parameters	TDS8001 sensor parameters
Principle	Two-pole graphite sensor
Measuring range	Conductivity:0-9999uS/cm; 10.00- 100.00mS/cm; TDS: 0-9999ppm Salinity: 0-40 00ppt
Resolution	1uS/cm; 0.01mS/cm; 1ppm; 0.01ppt
Accuracy	±2.5%
Sensor life	2–3years
Calibration period	＞3 months
Shell material	PPS
Cable length	5 meter (standard), other lengths are optional

Parameters	TDS8001 smart module parameters
Measure	Salinity/conductivity/TDS in water
Measuring range	Conductivity: 0-9999uS/cm; 10.00- 100.00mS/cm; TDS: 0-9999ppm Salinity: 0-40.00ppt
Resolution	1uS/cm; 0.01mS/cm; 1ppm; 0.01ppt
Temp range	0-60.0℃
Temp resolution	0.1℃
Sensor type	Two-pole graphite sensor
Accuracy	±2 5%；±0 5℃
Data compensation	Default 25.0℃ compensation temperature, 2%/℃
Communication method	RS485 interface*1
Communication protocol	Standard MODBUS-RTU protocol
Communication method	Baud rate 9600, 8, 1, N ID: 1-255 Default ID: 1 (0x01)
Calibration and parameter setting	RS485 remote setting
Power supply	7 - 30VDC
Power consumption	30mA @12 VDC

Parameters	TDS8002
Principle	Quadrupole conductivity sensor
Measurement range	Conductivity:(100~60000) μS/cm; (0.1~500.00) mS/cm; TDS: (0~9999) ppm; salinity: (0~100.00) ppt
Display resolution	1uS/cm; 0.01mS/cm; 1ppm; 0.01ppt
Accuracy	1.5%FS
Calibration period	＞3 months
Body material	POM (wet part)
Cable length	5m as standard, other lengths are optional
Measure	Salinity /Conductivity/TDS
Measuring range	Conductivity: (100~60000) μS /cm;(0.1~500.00) mS/cm; TDS: (0~9999) ppm; SAL:(0~100.00) ppt
Display resolution	1 μS/cm; 0.01mS/cm; 1ppm;0.01ppt
Temperature	0~60℃
Accuracy	0.1℃
Sensor type	Quadrupole conductivity sensor
Measurement accuracy	＜1.5%F.S, 2%reading, take the smaller of both
Accuracy	±0.5℃
Temperature compensation	Automatic compensation coefficient:2%/℃,coefficient adjustable(default compensating temperature is 25.0℃)
Communication	RS485
Communication protocol	MODBUS-RTU
Communication method	Baud rate 9600,8,1, N ID:1-255 default ID:1 (0×01)
Calibration and parameter setting mode	RS485 remote setting
Power supply	12 VDC
Power consumption	30mA @12 VDC

SUP-TDS6012

- **Application**

Thermal power plants

Water treatment industries

SUP-TDS7001

- **Application**

Water treatment

Acid-base measurement

SUP-TDS7002

- **Application**

Water treatment

Acid-base measurement

SUP-TDS7003

- **Application**

Pure water

Wastewater treatment

Mariculture

Semiconductor

Power

SUP-TDS8001

- **Application**

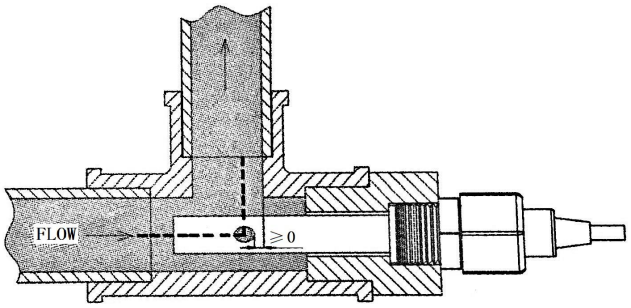
Water quality testing
Aquaculture
Information data collection
Industrial process testing
Internet of Things water quality testing

SUP-TDS8002

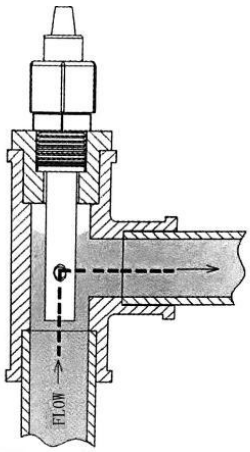
- **Application**

Aquaculture
River sewage
Seawater salinity
Environmental protection
Engineering

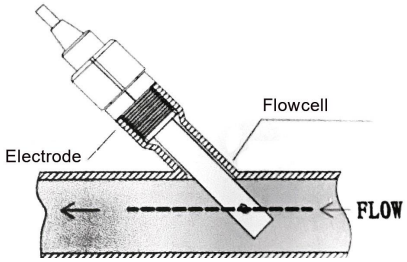
Installation of electrode



①Part of the fluid in the pipeline flows through the conductivity cell and is constantly updated, so the measurement is accurate, and the opening of the sensor must face FLOW.



②The waist hole of the conductivity cell is located in the fluid, and part of the fluid flows through the conductivity cell to be continuously updated, and the measurement is accurate.



③Part of the flow flows through the waist hole of the conductivity cell and is constantly updated, and the measurement data is correct and stable and true.

Electrode Calibration

(1) The conductivity meter is generally calibrated before leaving the factory, and the user can put it into use directly.

(2) In order to ensure the measurement accuracy of the conductivity instrument, the conductivity meter should be used to recalibrate the electrode constants before use, at the same time, the electrode constants should be calibrated regularly, and the conductivity electrode should be replaced in time if there is a large error.

(3) It is recommended that the user should calibrate it once every 1 to 2 months.

Related Product

pH/ORP meter

DO meter

Conductivity meter

Turbidity meter