

Special attention:

It is not suitable for chemical, pharmacy industry, food, beverage and other equipment. We suggest to use 'Removable 316L stainless steel sanitary grade ferrule conductivity cell', we do not responsible for the misuse or the optional of plastic conductivity.

Conductivity (TDS) Monitor

V1.1

Operation Manual

VI Failure judgment:

When the reading is incorrect or unstable, please check the meter and electrode:

(1). Distinguish the failure source which comes from meter or electrode.

Firstly, remove the white wire from the wire terminal and check if conductivity reading is 0 and resistivity is $18.23\text{M}\Omega \cdot \text{cm}$, the meter is good. The problem can be initially identified from the electrode installation.

(2). Sensor installation question failure judgment.

Remove the electrode from the fittings, and then use the electrode to test the water quality (user already know the conductivity reading of the water before test). If the reading is correct, so the installation is correct. If the reading with error, so the electrode failure.

VII Maintenance

(1). Electrode is a kind of precision components, so please do not change any part of the electrode. The accuracy will be incorrect if the electrode was destroyed by the strong acid, strong alkali, scrape from machine and etc.

(2). Please keep the measuring part of electrode clean, and do not directly contact the surface by hands or contact with the oil stain objects.

(3). When the measurement cable needs to be lengthened, it's recommended to make an agreement with the factory before supplying the cable.

(4). The meter is made by precision integrated circuit and electronic components, so it needs to place in case or dry environment.

Warranty:

(1). The meter's quality guarantee is one year from the date of purchasing. During this period, if the meter has quality problems, manufacturer is responsible for maintenance work for free or changes it.

(2). Manufacturer offers the maintenance service for whole life of the sold meters.

(3). If the damage of the meter is caused by the following reasons, it is out of the maintenance service:

A. The meter is burned or foundered caused by improper usage and maintenance;

B. The meter is refitted or misused without permit;

C. The meter is destroyed under the condition out of company's regulation;

D. The relevant damage caused by choosing the wrong type;

E. The cable damage and rupture caused by improper installation and usage;

F. The incorrect measurement of the sensor caused by disconnecting or connecting wires personally;

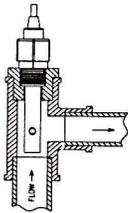
G. The inner broken wire caused by indiscreetly disassembling.

*Without the influence on the operation, any small change or improvement on the products by the manufacturer will not be notified separately. Please make the object as the standard.

I Technical features:

Instrument parameter		
Item	Measurement range (μS/cm)	Conductivity cell constant (cm ⁻¹)
Measurement range	(0.05~18.25) MΩ·cm	0.010cm ⁻¹
	(0.5~200) μS/cm	0.100cm ⁻¹
	(1.0~2000) μS/cm	1.000cm ⁻¹
	(0.5~20) mS/cm	10.00cm ⁻¹
Accuracy	Conductivity	1.5%(FS)
	Resistivity	2.0%(FS)
	Temp. value	±0.5℃
Temp. range	(0~50) ℃ ; with 25℃ as standard	
(4-20) mA output	Characteristic	Isolated, reversible, fully adjustable
	Accuracy	±0.1mA
Power supply	AC 220V±10% 50/60Hz ≤2.5W	
Working environment	Temp:(0~50)℃ ; Humidity≤85%RH	
Dimension	(48×96×80) mm (H×W×D)	
Hole size	(44×92) mm (H×W) (Panel mounted)	
Conductivity cell constant		
Medium temp.	(5~50)℃	
Thread size	1/2" pipe thread	
Medium pressure	(0~0.5)MPa	
Cable length	10.0/1.0/0.1 cm ⁻¹ standard cable length 5m, 0.01cm ⁻¹ standard cable length 10m.	

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Correct installation (2), Ensure that the conductivity small hole is in the water windows

Note:

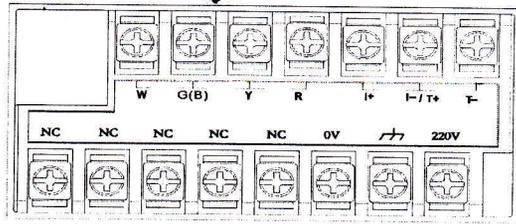
- (1)The electrode should be installed in a place in the pipeline where the stream is steady and air bubbles are hard to generate.
- (2)No matter the conductance cell is horizontally or vertically installed, it should be deeply inserted into the moving water.
- (3)The conductivity signal is weak electronic signal and its collecting cable should be separately installed. When threading cable joint or connecting terminal board is used, to avoid wetting interference or breakdown of measurement unit circuit, they should not be connected to the same group of cable joint or terminal board with the power line or control line.
- (4)When the measurement cable needs to be lengthened, it's recommended to make an agreement with the factory before placing an order.

IV Key functions Introduction

Key sign	Name	Function
>>	select key	1.parameter setting to select thousand, hundred, ten and unit in circulate; 2. Measurement switches to display conductivity/TDS/Resistivity.
⤴	Add key	1. Adjust the value under setting status; 2. Check the temperature/mA reading under measurement status.
↵	Enter key	1.Enter parameter setting under main menu; 2. Save the parameters and enter next menu.

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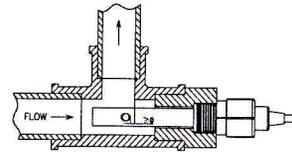
II Outline Dimension and Rear Terminals



- W—Conductivity cell white line;
- G/B—Conductivity cell Green line;
- Y—Conductivity cell Yellow line;
- R—Conductivity cell Red line;
- I+/I-: (4-20)mA Instrument mode,power from instrument's internal;
- T+/T-: (4-20)mA Transmitter mode,power from conditioning modules
- 0V/220V: AC supply;AC 220Vswitch-in;
- ⚡ : Electromagnetic compatibility on field protection terminal (connected with ground);
- NC: Empty terminal (no internal connection).

III Electrical Connection:

Please follow the correct installation method to install the electrode strictly. The incorrect installation will cause the reading error:



Correct installation (1), Ensure the stretching length is enough.

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V Introduction of operation menu:

Under main measuring menu, pressing ↵ for three seconds and enter setting menu automatically

Order Setting	Menu name	Introduction for function
1	Conductivity Cell Type	The screen blinks and operate "Add key" to select conductivity cell type,then save and enter into next parameter setting.
2	Conductivity cell constant	The sign "C=" blink on display screen, operating selectkey and add key to input the needed electrodeconstant value, pressing enter key to save and enter next parameter setting.
3	Measurement unit setting	The sign "Unit" blink on display screen, press add key to select measurement unit (ppm , ppt, μS/cm or mS/cm), press enter key to save and enter next parameter setting.
4	4mA transfer setting	The sign "4mA" blink on display screen, press select key and add key to input the 4mA transferable value and press enter key to save and set the radix point. Press enter key to save and enter next parameter setting.
5	20mA transfer setting	The sign "20mA" blink setting the data according to 20mA and press enter key to set the radix transferable value, press enter key enter the next parameter setting.
6	High limit value	Highsign blink, modify the high limit value and save, then enter next parameter setting. Obligate function, Not at present
7	Low limit value	Lowsign blink, modify the low limit value and save, then enter next parameter setting. Obligate function, Not at present
8	Digits	Under constant 0.01 to select one or two digits display.

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