

## MDCNS Industrial Conductivity Sensor

### Features

The conductivity industrial series of electrodes are specially used for the measurement of conductivity value of pure water, ultra-pure water, water treatment, etc. It is especially suitable for conductivity measurement in the thermal power plant and the water treatment industry. It is featured by the double-cylinder structure and the titanium alloy material, which can be naturally oxidized to form the chemical passivation. Its anti-infiltration conductive surface is resistant to all kinds of liquid except fluoride acid. The temperature compensation components are: NTC2.252K, 2K, 10K, 20K, 30K, pt100, pt1000, etc. which are specified by the user.

K=0.0 or K=30 electrode adopts a large area of platinum structure, which is resistant to strong acid and alkaline and has strong anti-pollution capacity; it is mainly used for on-line measurement of the conductivity value in the special industries, such as the sewage treatment industry and the seawater purification industry.

Constant of electrode	Compressive strength	Measuring range	Connection	Material	Application
0.01	0.6MPa	0-20 $\mu$ S/cm	Pipes, hoses and flanged pipes, etc. Diameter: $\Phi$ 6, $\Phi$ 8, $\Phi$ 14,	316L Titanium Alloy	Power Plant Water Treatment Industry
0.1	0.6MPa	0-200 $\mu$ S/cm	Pipes, hoses and flanged pipes, etc. Diameter: $\Phi$ 6, $\Phi$ 8, $\Phi$ 14, etc.	316L Titanium Alloy	Power Plant Water Treatment Industry
1.0	0.6MPa	0-2000 $\mu$ S/cm	1"or 3/4" Thread Installation	316L Titanium Alloy and Platinum	Water Treatment Industry
10.0	0.6MPa	0-20000 $\mu$ S/cm	1/2"or 3/4" Thread Installation	Polysulfone and Platinum	Water Treatment Industry
30.0	0.6Mpa	30-600mS/cm	3/4"Thread Installation	Polysulfone	acid cleaning



Compression-type    Pipe thread-type    K = 10.0 Electrode    Compression-type electrode

## MDCNS1 Industrial Inductive Conductivity Sensor

Widely used in pipe cleaning of power plants and foodstuff, as well as chemical production highly polluted environment. Suitable acid concentration measurement and the conductivity measurement of a high concentration salt solution less than 10%.

### Features

- Performance in harsh chemical environments is excellent, chemical resistant material manufactured by the electrode is not polarized interference, to avoid dirt, grime and even affect fouling layer covering phenomena such as very poor, simple and easy to install so it's a very wide range of applications. Design electrodes applied to a high concentration of acids (such as fuming sulfuric acid) environment.
- English acid concentration meter use, high accuracy, and high stability.
- Conductivity sensor technology eliminates clogging and polarization errors. Used in all areas of contact electrodes may cause blockage which has a high performance.
- Large aperture sensor, long-term stability.
- Accommodate a wide range of brackets and use common bulkhead mounting structure, flexible installation.

### Technical Indexes

- Maximum pressure (bar): 1.6MP
- Electrode body materials: PP, ABS, PTFE optional
- Measuring range: 0 ~ 10ms, 0 ~ 20ms, 0 ~ 200ms, 0 ~ 2000ms
- Accuracy (cell constant):.  $\pm (+25\mu\text{s}$  to measure the value of 0.5%)
- Installation: flow-through, pipeline, immersion
- Pipe installations: pipe threads 1 1/2" or 3/4"NPT
- Output signal: 4-20mA



## MDCNS2 Digital Conductivity Sensor

### Summary

- BH-485 series of online conductivity electrode, in the interior of the electrodes achieve the automatic temperature compensation, digital signal conversion and other functions. With rapid response, low maintenance cost, real-time online measurement characters etc. The electrode using standard Modbus RTU (485) communication protocol, 24V DC power supply, four wire mode can very convenient access to sensor networks.

### Features

- Can work stably for a long time
- Built in temperature sensor, real-time temperature compensation
- RS485 signal output, strong anti-interference ability, the output range of up to 500m
- Using the standard Modbus RTU (485) communication protocol
- The operation is simple, the electrode parameters can be achieved by remote settings, remote calibration of electrode
- 24V DC power supply.

### Technical Indexes

■ Model	MDCNS2
■ Parameter measurement	conductivity, temperature
■ Measure range	Conductivity: 0-2000 $\mu$ s/cm    Temperature: (0~50.0) $^{\circ}$ C
■ Accuracy	Conductivity: $\pm$ 20 $\mu$ s/cm    Temperature: $\pm$ 0.5 $^{\circ}$ C
■ Reaction time	<60S
■ Resolution	Conductivity: 1 $\mu$ s/cm    Temperature: 0.1 $^{\circ}$ C
■ Power supply	24V DC
■ Power dissipation	1W
■ Communication mode	RS485(Modbus RTU)
■ Cable length	5 meters, can be OEM depend on user's requirements
■ Installation	Sinking type, pipeline, circulation type etc.
■ Overall size	230mm $\times$ 30mm
■ Housing material	ABS

