

SMR07 Conductivity Analyzer

RS485 Communication. All-in-One Compact Housing. Explosive Proof.

The Conductivity Analyzer is connected directly via RS485 communication interface, providing simple, reliable, cost-saving process data with remote monitoring, calibration, configuration and diagnostic capabilities. Housing in a robust IP68 proof enclosure, 1500 N tensile strength Kevlar reinforced cable, up to 1.2 km digital data transmission, the transmitter is ideally used in water/wastewater industry.

Advantages

- Replaceable 2 Electrodes, 4 Electrodes, Standard M12 Connector
- All-in-One Compact Housing, Built-in Transmitter and Sensors
- Robust IP68 Water Submersible Protection, Directly Installed in the Field, No Cabinet Required
- Plug & Play, On-line Realtime Measurement
- Ultra Low Power Consumption, Ideal for Outdoor Applications
- 1500 N Tensile Strength Kevlar Reinforced Cable
- Temperature Compensation
- Surge Protection for Power and RS485 Communication
- RS485 Digital Communication, Minimize Cabling and Engineering Cost
- Standard Modbus RTU Protocol, Direct Connected with PLC, HMI
- Onboard Memory Allowing Users Easily Calibrate and Configure Sensor at Lab and Distribute to Various Fields and Sites
- AQCFG Software Tool for Data Monitoring, Calibration, Configuration and Diagnosis
- IECEx/ATEX Ex ia IIB T5 Ga Explosive Proof Certification

Applications

Drinking water, surface water, groundwater, industry, water treatment, wastewater

Measurement Method

Theoretically, water free of any contaminants will not conduct electricity. The ability to carry on electric current depends on the presence of ions; conductivity increases with increasing ion concentration. Conductance of a solution is calculated by measuring the electrical current between two or four electrodes set a fixed voltage source and immersed in water sample.

Installation

Submersible, flow through, pipe insertion



Specifications

General	
Output Signal	RS485 (Modbus RTU protocol), 19,200 bps, 8 data bits, no parity, 1 stop bit; 4~20 mA (optional)
Data Resolution	16 bits (0.001% FS)
Surge Protection	1,500 VDC
Power	5~12 VDC, 130 mA
Protection	Polarity, Overload, Short circuit
Safety	CE, FCC
Conductivity	
Measurement Range	SMR07-1: 0.05~500 mS/cm ; SMR07-2: 0.01~50 mS/cm ; SMR07-6: 0.001~5 mS/cm
Accuracy	±2% measured value
Resolution	0.1 μS/cm
Repeatability	±1% measured value
Operating Pressure	Max. 10 Kg/cm ²
Operating Temperature	0~60 °C
Process Flow Rate	0.1~4 m/s
Response Time	3 secs
Calibration Interval	Typical 12 months
Protection	IP68
Electrical Connection	M16X1.5 plug fixed cable, M12 connector, 5 pin
Housing Material	POM
Electrode Type	4 electrode (SMR07-1) ; 2 electrode (SMR07-2, SMR07-6)
Electrode Material	Epoxy
Cable	Kevlar reinforced PUR cable, 1500N tensile strength
Dimensions	ø 36X328 mm ; ø 36X284 mm
Weight	analyzer: approx. 150 g ; cable: 80 g/m
Temperature	
Sensor	Pt1000 (SMR07-1) ; NTC 10K (SMR07-2, SMR07-6)
Measurement Range	0~60 °C
Accuracy	± 0.1 °C
Resolution	0.01 °C
Repeatability	0.1 °C

Ordering Codes

Ordering Codes

Measurement Range (mS/cm)

0~500	1
0~50	2
0~5	6

Sensor

Temperature	
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Cable Length (m)

5	005
10	010
Custom	001~999

Cable Type

PUR	
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Housing

POM	
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Wiper

None	
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Wire Connection

Bare Wire	0
M12 Connector	1

Explosive Proof

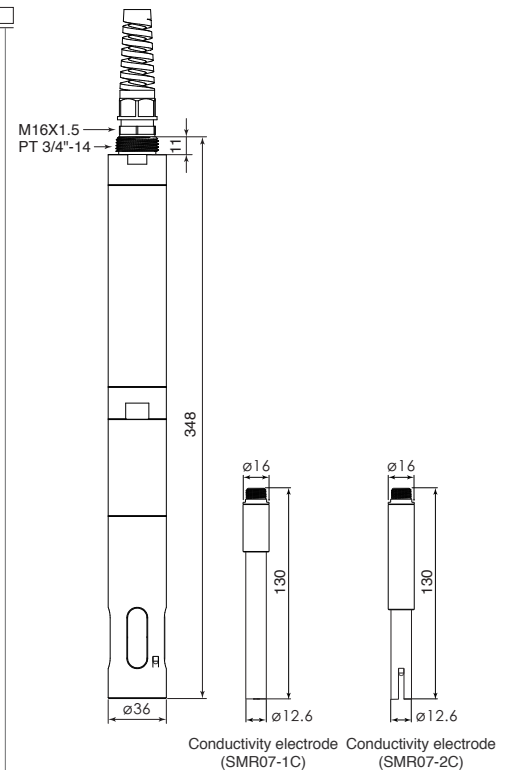
None	0
Certificated	1

Analog Output

None	0
4~20 mA	1

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Dimensions



All performances are subject to the actual performance of the products sold by the company in the market, and are only applicable to the products of the company's brand sold by the company or its designated distributors. All the above data are from the internal test of Kaifa Water Resources, and the data may be biased due to different test environments. The manufacturer reserves the right to make changes to product performance, specifications, samples or designs without notice. All information has been carefully checked for accuracy. If there is any printing omission or there may be errors in translation, the company will not be responsible for the consequences.
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