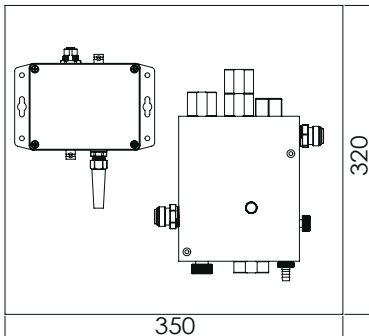


SMR03

RS485 Communication Free Chlorine Analyzer



SMR03-2

The Free Chlorine Analyzer is connected directly via RS485 communication interface, providing simple, reliable, cost-saving process data with remote monitoring, calibration, configuration and diagnostics 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.

Typical Applications

Drinking water, stormwater groundwater, industry, water treatment, wastewater, gas petrochemical

Measurement Method

The amperometric electrode measurement cell consists of two combination probes that uses a platinum anode and a copper cathode electrode to amperometrically measure free residual chlorine. There is no need for chemical reagents, and the glass balls inside rotates continuously to remove the hydrogen gas from the electrodes. An electrochemical reaction occurs within these electrodes, based on the available chlorine concentration, generating a proportional current. The whole unit includes flow indicator, free chlorine electrode and mounting plate. Optional pH and temperature sensors for compensation are available.

Advantages

- Robust IP68 Water Submersible Enclosure, Solution Without Cabinet
- On-line Realtime Measurement
- Ultra Low Power Consumption, Ideal for Outdoor Applications
- Temperature Compensation
- No Moving Parts, High Reliability, Drift Free
- Surge Protection for Power and RS485 Communication
- 1.2 Km RS485 Digital Communication, Minimize Cabling and Engineering Cost
- Software Configuration Calibration and Data Monitoring
- Standard Modbus RTU Protocol, Direct Connected with PLC, HMI, Eliminate I/O Module Cost
- Auto Cleaning, Almost No Maintenance
- No Reagent and Membrane, Almost No Consumable
- Not Affected by Pressure Fluctuation (1~15kg f/cm²)
- pH Compensation (pH 5-9)
- Built-in Flow Regulator and Flow Indicator
- Integration Additional Sensors such as Conductivity or ORP
- Onboard memory allowing users to easily calibrate and configure sensor at lab and distribute to various fields sites

Specifications

- ▶ General
- Output Signal: RS485 (Modbus RTU protocol), 19,200 bps, 8 data bits, no parity, 1 stop bit
- Data Resolution: 16 bits (0.001% FS)
- Surge Protection: 4000 V DC
- Power: input: DC 3.6~5 V, 20 mA
- Protection: polarity, overload, short circuit
- Safety: CE, FCC

Free Chlorine Sensor	
Measurement range	0~2 mg/L
Accuracy	0.01 mg/L (0~0.5 mg/L); 0.02 mg/L (0.5~2 mg/L)
Resolution	0.01 mg/L
Repeatability	±1% FS
Temperature compensation	0~85 °C
Automatic pH compensation	5-9 pH (SMR03-2)
First setup time	4 hours
Process flow rate	0.8 l/min
Auto cleaning	rotating glass ball
Electrode material	platinum(cathode), copper(anode)
Operating pressure	0~10 Kgf/cm ²
Operating temperature	0~85 °C
Response time	3 secs
Protection	IP68
Flow chamber	Acrylic
pH Sensor	
Measurement range	0 ~14 pH
Accuracy	±0.05 pH
Resolution	0.01 pH
Repeatability	±0.01 pH
Temperature Sensor	
Measurement range	0 ~85°C
Accuracy	±0.5°C; ±0.1°C (optional)
Dimension	350(W)x320(H)x155(D)mm
Weight	Free chlorine and pH analyzer: approx. 1.5 Kg cable: 80 g/m

Ordering

Sensors

pH, Temperature

Cable Length (m)

3 _____ 003
5 _____ 005
10 _____ 010
Custom _____ 001~999

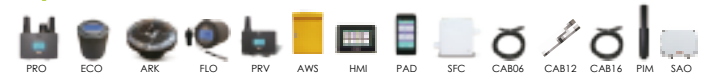
Cable Type

PUR

Housing

Acrylic

Optionals



Order	Description
PRO	Wireless Controller
ECO	Wireless Logger
ARK	Water Quality Monitoring Buoy
FLO	Open Channel Flow Meter
PRV	Wireless PRV Controller
AWS	Automatic Water Sampler
HMI	Multiparameter Controller
PAD	Handheld Meter
SFC	Flow Chamber
CAB06	Configuration cable (1.5 m, USB interface)
CAB12	2 ports RS485 cable
CAB16	4 ports RS485 cable
PIM02	Pipe mounting
SAO01	Analog output module(4~20 mA, 1 channel)



RoHS



Specification and product information contained herein are subject to change without notice. Performance varies depending on hardware, software and overall system configuration. Warranty and RMA policy varies with countries, please check with your local distributors or visit www.aquas.com.tw/en

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