

SMR21

RS485 Communication Nitrate (NO₃-N) Analyzer

The Nitrate (NO₃-N) 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

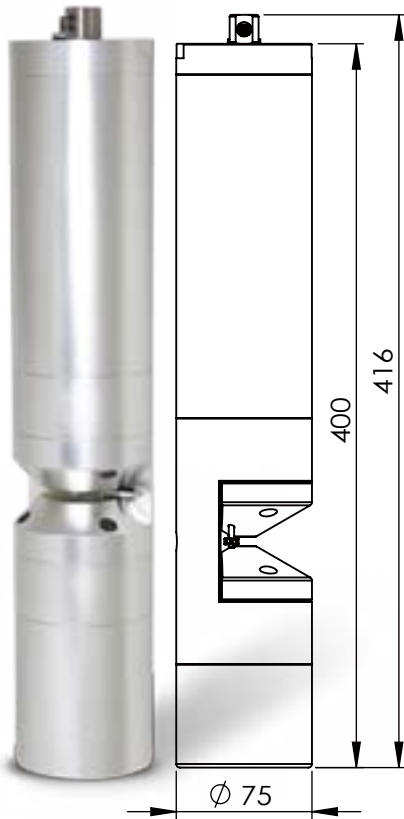
Drinking water, water treatment, wastewater, fishery

Measurement Method

The Xenon flash lamp emits UV-Vis light passing through the sample to be analysed. The spectrometer resolve the wavelength into high resolution spectrum with advanced algorithms to provide the concentration and eliminates mutual interferences such as chemicals, turbidity and color.

Advantages

- Robust IP68 Water Submersible Enclosure, Solution Without Cabinet
- On-line Realtime Measurement
- Ultra Low Power Consumption, Ideal for Outdoor Applications
- 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
- Optional Auto Cleaning Wiper, Almost No Maintenance
- No Inlet Water Alarm Output
- 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; 4~20 mA (optional)
- Data Resolution: 16 bits (0.001% FS)
- Surge Protection: 4000 V DC
- Power: 12 V DC ±10%, 0.5A
- Protection: polarity, overload, short circuit
- Safety: CE, FCC

Type	Optical
Measurement range	SMR21-4: 0~5,000 mg/L SMR21-5: 0~1,000 mg/L SMR21-6: 0~100 mg/L SMR21-7: 0~10 mg/L SMR21-8: 0~5 mg/L SMR21-9: 0~2 mg/L
Accuracy	±5% in standard solution
Resolution	0.01 mg/L
Repeatability	±3% in standard solution
Light Source	Xenon flash lamp
Beam Angle	180°
Light Path Length	0.5, 1, 10, 20, 50, 100 mm
Process Flow Rate	0.1~10 m/s
Operating pressure	Max. 5 Kg/cm ²
Operating Temperature	0 ~ 85 °C
Response time	30 secs
Protection	IP68
Turbidity (or total suspended solids) measurement range	SMR21-4: 0~10,000 NTU (or 0~20,000 mg/L) SMR21-5: 0~4,000 NTU (or 0~10,000 mg/L) SMR21-6: 0~2,000 NTU (or 0~4,000 mg/L) SMR21-7: 0~200 NTU (or 0~500 mg/L) SMR21-8: 0~100 NTU (or 0~200 mg/L) SMR21-9: 0~50 NTU (or 0~100 mg/L)
Turbidity (or total suspended solids) accuracy	±5% FS
Housing	Titanium; Aluminum
Dimension	Φ 75x416 mm
Weight	analyzer: approx. 5 Kg (Titanium); 3.5 Kg (Aluminum); cable: 80 g/m



RoHS

CE

FCC



Ordering

Type

Refer to the table

Sensor

Turbidity _____ 2
Total Suspended Solids (TSS) _____ 3

Cable Length (m)

0 _____ 000
3 _____ 003
5 _____ 005
10 _____ 010

Cable Type

None _____ 0
PUR _____ 3

Housing

Titanium _____ 2
Aluminum _____ 3

Wiper

None _____ 0
Built-in _____ 1

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)

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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