

SMR02 Hydrostatic Level Transmitter

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

The Hydrostatic Level Transmitter 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

- 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 and Density Compensation
- No Vent Tube to Avoid the Humidity to Damage the Sensor
- 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, stormwater groundwater, industry, water treatment, wastewater, gas, petrochemical

Measurement Method

The transmitter is with a small profile, piezoresistive silicon pressure sensor packaged in a 316L stainless steel housing. The package utilizes silicone oil to transfer pressure from 316L stainless steel diaphragm to the sensing element. A ceramic substrate is attached to the package that contains laser-trimmed resistors for temperature compensation and offset correction.

Installation

Submersible



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, 5 mA
Protection	Polarity, Overload, Short circuit
Safety	CE, FCC
Hydrostatic	
Measurement Range	SMR02-1: 0~10 m ; SMR02-2: 0~50 m ; SMR02-3: 0~100 m
Accuracy	± 0.1% FS, ±0.05% FS (optional) (SS316L); ±0.25% FS (Titanium)
Resolution	0.01% FS
Repeatability	±0.025% FS
Stability (annual)	0.1% FS
Safety Load	3 X measurement range
Rupture	>4 X measurement range
Operating Temperature	0~60 °C
Response Time	1 sec
Protection	IP68
Connection	M16 plug fixed cable, M12 connector, 5 pin
Housing Material	SS316L; Titanium
Sensor Material	SS316L; Titanium
Cable	Kevlar reinforced PUR cable, 1500N tensile strength
Dimensions	ø 23 X 183 mm ; ø 23 X 437 mm (including conductivity sensor)
Weight	transmitter : approx. 200 g (SS316L) ; 160 g (Titanium) ; cable: 80 g/m
Temperature	
Sensor	Pt100
Measurement Range	0~60 °C
Accuracy	± 0.1 °C
Resolution	0.01 °C
Repeatability	0.1 °C

Ordering Codes

Ordering Codes

Measurement Range(m)

0~10	1
0~50	2
0~100	3

Sensor

None	0
Temperature	1

Cable Length (m)

10	010
Custom	001~999

Cable Type

PUR

Housing

SS316L	1
Titanium	2

Wiper

None

Wire Connection

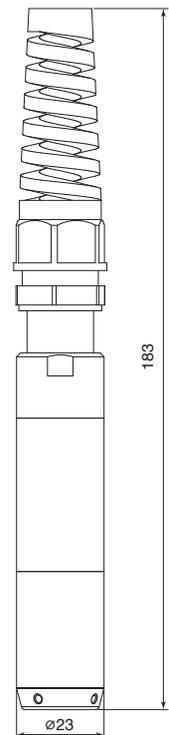
Bare Wire	0
M12 Connector	1

Explosive Proof

None	0
Certificated	1

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Dimensions



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