

Datalogging Water Quality Sensor

Seametrics PT2X Submersible Pressure/Temp. Smart Sensor with Data Logging

The PT2X Smart Sensor is a pressure and temperature sensors with internal data logger. Constructed with rugged 316 stainless steel or titanium, the PT2X is ideal for monitoring groundwater level, storm water runoff, and surface water gauging. The PT2X is a gauged sensor that can be operated independently or networked with other Seametrics Smart Sensors. The sensor is easily programmed and monitored using the included Aqua4Plus software.

FEATURES

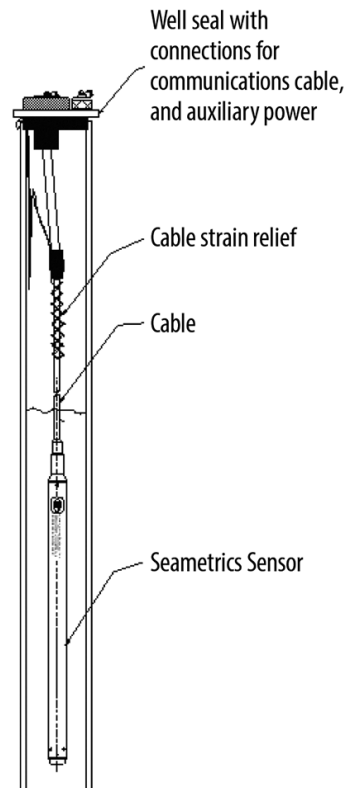
Sensor

- Constructed with 316 stainless steel or titanium
- Low power – field replaceable AA batteries
- Modbus® RTU (RS485) and SDI-12 interface – great flexibility
- Small diameter – 0.75" (1.9 cm)
- ± 0.05% FSO typical accuracy
- Wireless connectivity – radios and/or cellular
- Barometric compensation utility for use with absolute sensors
- Free, easy-to-use Aqua4Plus 2.0 software

Datalogger

- 520,000 record
- Non-volatile memory – no data loss in the event of a power failure
- Flexible, multi-phase logging sequences – save sequences to disk to reuse in the future
- Pause logging feature – temporarily pause the logging while repositioning or transporting sensor
- Delayed start feature – state a specific future start time, making it easy to set several sensors to start at the same time

TYPICAL INSTALLATION



APPLICATIONS

- Pump and slug tests
- River, stream, reservoir gauging
- Stormwater runoff monitoring
- Wetland monitoring
- Well, tank, tidal levels
- Resource administration



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Datalogging Water Quality Sensor

Seametrics PT2X Submersible Pressure/Temp. Smart Sensor with Data Logging

SPECIFICATIONS

Housing & Cable

Weight	0.8 lb. (0.4 kg)
Body Material	Acetal & 316 stainless or titanium
Wire Seal Material	Fluoropolymer and PTFE
Cable	Submersible: polyurethane, polyethylene, or ETFE (4 lb./100 ft., 1.8 kg/30 m)
Desiccant	1-3 mm indicating silica gel
Field Connector	Standard

Temperature

Operating Range	Recommended: -15° to 55°C (5° to 131°F) Requires freeze protection kit if using pressure option in water below freezing.
Storage Range	Without batteries: -40° to 80°C (-40° to 176°F)

Power

Internal Battery	Two lithium 'AA' batteries – Expected battery life: 18 months at 15 min. polling interval (may vary do to environmental factors)
Auxiliary	12 Vdc – Nominal, 6-16 Vdc – range

Communication

Modbus®	RS485 Modbus® RTU, output = 32bit IEEE floating point
SDI-12	SDI-12 (ver. 1.3) – ASCII

Logging

Memory	4MB – 520,000 records
Logging Types	Variable, user-defined, profiled
Logging Rates	8x/sec maximum, no minimum
Baud Rates	9600, 19200, 38400
Software	Complimentary Aqua4Plus 2.0
Networking	32 available addresses per junction (Address range: 1 to 255)
File Formats	.a4d and .csv

Output Channels

	Temperature	Depth/Level ¹
Element	Digital IC on board	Silicon strain gauge transducer, 316 stainless or Hastelloy
Accuracy	±0.5°C – 0° to 55°C (32° to 131°F) ±2.0°C – below 0°C (32°F)	±0.05% FSO (typical, static) ±0.1% FSO (maximum, static) (B.F.S.L. 20°C)
Resolution	0.1°C	0.0034% FS (typical)
Units	Celsius, Fahrenheit, Kelvin	PSI, FtH ₂ O, inH ₂ O, mmH ₂ O, mH ₂ O, inH ₂ O, cmHg, mmHg, Bars, Bars, kPa
Range	-15° to 55°C (5° to 131°F)	Gauge: PSI: 1 ² , 5, 7, 15, 30, 50, 100, 300 FtH ₂ O: 2.3 ² , 12, 35, 69, 115, 231, 692 mH ₂ O: 0.7 ² , 3.5, 5, 10.5, 21, 35, 70, 210 Absolute ³ : PSI: 30, 50, 100, 300 FtH ₂ O: 35, 81, 196, 658 mH ₂ O: 10, 24, 59, 200
Compensated	–	0° to 40°C (32° to 104°F)
Max Operating Pressure	1.1 x full scale	
Over Pressure Protection	3x full scale up to 300psi – for >300psi (650 ft. or 200 m) contact factory	
Burst Pressure	1000 psi (approx. 2000 ft. or 600 m)	
Environmental	IP-68, NEMA 6P	

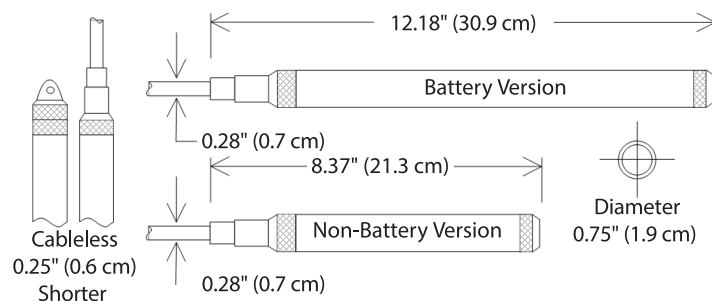
Specifications subject to change.

Modbus is a registered trademark of Schneider Electric.

¹ Higher pressure ranges available upon request

² ±0.25% accuracy FSO (max) at this range

³ Depth range for absolute sensors has 14.7 PSI subtracted to give actual depth allowed.



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