

PT12

SUBMERSIBLE PRESSURE/TEMPERATURE SMART SENSOR



APPLICATIONS

Rugged construction can replace analog sensors

Monitor groundwater, well, tank, and tidal levels

Pump testing

Flow monitoring

Features

- Modbus® RTU (RS485) and SDI-12 v1.3 interfaces
- Small diameter — 0.75" (1.9 cm)
- Pressure and temperature
- 316 stainless steel, fluoropolymer, and PTFE construction (titanium optional)
- Polyethylene, polyurethane, and ETFE cable options
- End code interchangeable with a 1/4" NPT inlet
- Specification per OSW Technical Memo 96.05 is an option on the 15 psig (10.5 mH₂O) and 30 psig (21 mH₂O) units

The **Seametrics PT12** Pressure/Temperature Sensor has been designed to provide trouble-free submersible operation in liquid environments. This sensor communicates via SDI-12 (v1.3) or Modbus® RTU (RS485) protocol.

Pressure/level is measured with an extremely rugged and stable piezo-electric, media isolated pressure element and compensated for temperature using our proprietary calibration methodology. Temperature is measured using an on-board digital chip.

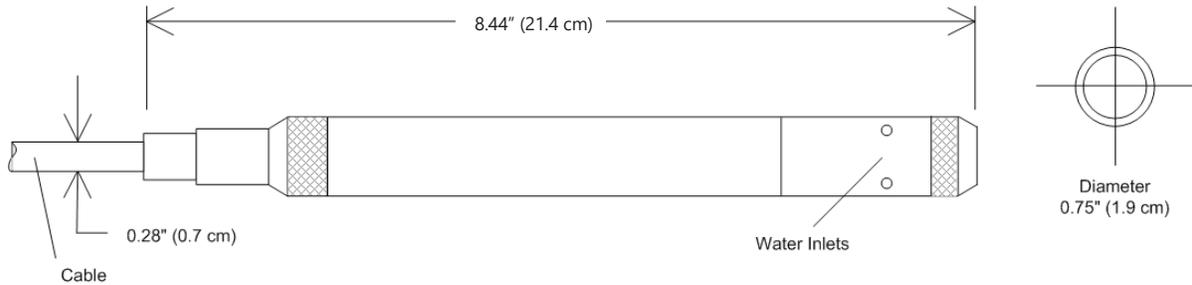
Seametrics also carries a special version of the PT12 designed to measure barometric pressure in reference to absolute pressure. If you are using an absolute PT12, contact your representative for details on how our PT12-BV can facilitate obtaining barometrically compensated pressure/level.

Contact Your Supplier

PT12
SUBMERSIBLE PRESSURE/TEMPERATURE
SMART SENSOR



Dimensions



Specifications*

Housing & Cable	Weight	0.8 lb. (0.4 kg)	
	Body Material	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; 2000 ft max for Modbus®	
	Desiccant	1-3 mm indicating silica gel	
	Field Connector	Available as an option	
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	-40° to 80°C (-40° to 176°F)	
Power	Voltage	9-16Vdc, 24Vdc over voltage protection, electromagnetic & transient protection IEC-61000 - 4-3, 4-4, 4-5, 4-6	
	Supply Current	Active 3mA average/ 10mA peak; sleep 150 µA	
Communication	Modbus®	RS485 Modbus® RTU, output=32bit IEEE floating point	
	SDI-12	SDI-12 (ver. 1.3) - ASCII	
Output Channels		Temperature	Depth/Level¹
	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	0.06°C	0.0034% FS (typical)
	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	IP68, NEMA 6P		

*Specifications subject to change. Please consult our web site for the most current data (seametrics.com). 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.