



# PT2X SUBMERSIBLE PRESSURE/TEMPERATURE SMART SENSOR

## WITH DATALOGGING

### Measure AND Record

#### Pressure AND Temperature

with this easy-to-use

yet powerful and accurate

#### AquiStar® PT2X Smart Sensor!

Great almost anywhere you need to measure level and temperature – whether it be in a lake, in a tank, or in a well.

## FEATURES

### SENSOR

- Pressure, temperature, time
- Absolute, gauge, or sealed gauge
- Thermally compensated – *great where water temperatures vary, such as in streams or in industrial tank applications*
- $\pm 0.06\%$  FSO typical accuracy
- Low power – *2 internal AA batteries*
- External power options (12 VDC) with AA's acting as backup
- 316 SS, Viton®, Teflon® construction (titanium optional)
- Small diameter – 0.75"
- Modbus® or SDI-12 interface for greater flexibility

### DATALOGGER

- 130,000 record, 260,000 record, and 520,000 record versions
- Non-volatile memory – *data will not be lost 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*

### CABLING AND NETWORKING

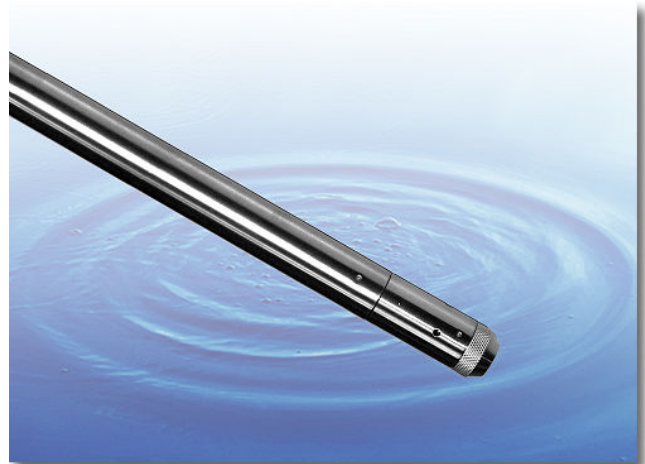
- Wireless connectivity – *radios and/or cellular*
- RS485 network – *allows several sensors to be networked together and allows much longer cable leads than does RS232*
- Field serviceable connectors – *easily remove the connector, route cable through well seals, walls, or conduit, and then replace connector*
- Available cableless or with a variety of cable options – *polyethylene, polyurethane, or FEP Teflon®*

### SOFTWARE - FREE, EASY-TO-USE

- Real time viewing
- Easy export to spreadsheets and databases
- Barometric compensation utility for use with absolute sensors
- Ability to update sensor via firmware while in the field – *great for future updates or custom development*

## APPLICATIONS

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



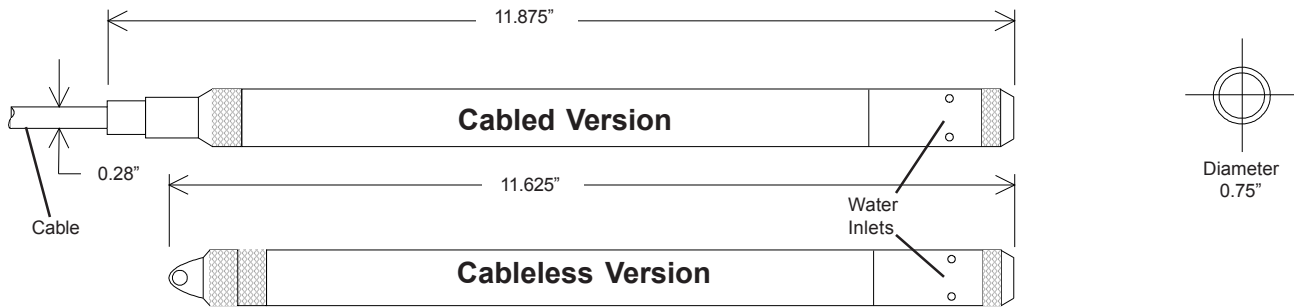
**Instrumentation  
Northwest, Inc.**

**1-800-776-9355**  
<http://www.inwusa.com>



# PT2X SUBMERSIBLE PRESSURE/TEMPERATURE SMART SENSOR

## DIMENSIONS, SPECIFICATIONS, and ORDERING INFORMATION



### GENERAL

<b>Length</b>	11.875"
<b>Diameter</b>	0.75"
<b>Weight</b>	0.8lb.
<b>Body Material</b>	Delrin® & 316 Stainless Steel or Titanium
<b>Wire Seal Materials</b>	Viton® and Teflon®
<b>Submersible Cable</b>	Polyurethane, Polyethylene, FEP or Tefzel® available
<b>Protection Rating</b>	IP68, NEMA 6P
<b>Desiccant</b>	1-3mm indicating silica gel ( <i>high or standard capacity</i> )
<b>Terminating Connector</b>	Available
<b>Communication</b>	RS485 Modbus SDI-12 (ver.1.3)
<b>Operating Temp. Range<sup>3</sup></b>	-15°C to 55°C
<b>Storage Temp. Range<sup>1</sup></b>	-20°C to 80°C

### LOGGING

<b>Memory</b>	1MB - 130,000 records 2MB - 260,000 records 4MB - 520,000 records
<b>Log Types</b>	Variable, User-Defined, Logarithmic, Profiled
<b>Programmable Baud Rate</b>	9600, 19200, 38400
<b>Logging Rate</b>	8x/sec
<b>Software</b>	Complimentary Aqua4Plus or Aqua4Push
<b>Networking</b>	32 available addresses per junction w/ batching capabilities (up to 255)
<b>File Formats</b>	.xls/.csv/.a4d

### POWER

<b>Internal Battery</b>	2x1.5V AA Alkaline <sup>2</sup>
<b>Auxiliary Power</b>	12VDC - Nominal 6-15 VDC - Range
<b>Exp. Battery Life</b>	18 months at 15m polling interval

### TEMPERATURE

<b>Element Type</b>	Digital IC on board
<b>Accuracy</b>	±0.5°C
<b>Resolution</b>	0.06°C
<b>Range</b>	-20°C to 80°C
<b>Units</b>	Celsius, Fahrenheit, Kelvin

### PRESSURE

<b>Transducer Type</b>	Silicon Strain Gauge
<b>Transducer Material</b>	316 Stainless or Titanium
<b>Pressure Ranges</b>	
<i>Gauge (PSIG)<sup>5</sup></i>	1,2,5,5,15,30,50,100,300
<i>Absolute (PSIA)<sup>5</sup></i>	20,30,50,100,300
<b>Units</b>	PSI, FtH <sub>2</sub> O, inH <sub>2</sub> O, cmH <sub>2</sub> O, mmH <sub>2</sub> O, mH <sub>2</sub> O, inHg, cmHg, mmHg, Bars, mBars, kPa
<b>Static Accuracy</b>	±0.06% FSO <i>typical</i> ±0.1% FSO <i>maximum</i> (B.F.S.L. 25°C)
<b>Resolution</b>	16 bit
<b>Maximum Zero Offset</b>	±0.25% FSO (@ 25°C)
<b>Maximum Operating Pressure</b>	1.1 x FS
<b>Burst Pressure<sup>4</sup></b>	3.0 x FS
<b>Compensated Range</b>	0°C to 40°C

<sup>1</sup> Storage without batteries  
<sup>2</sup> Lithium available upon request  
<sup>3</sup> Requires freeze protection kit if in water below freezing  
<sup>4</sup> Burst reduced at PSI>300  
<sup>5</sup> Higher Pressure ratings available upon request

Information in this document is subject to change without notice.

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