



# CT2X SUBMERSIBLE SMART SENSOR

## Conductivity/Temperature with Pressure/Temperature Option



### FEATURES

- Small diameter (0.75")
- Conductivity, temperature & time with pressure option
- 10 microSiemens/cm to 100,000 microSiemens/cm
- Linear and nLFn temperature compensation
- Also measures TDS in mg/L
- 349,000+ records / non-volatile
- 316 stainless steel, Viton® and Teflon® construction (Titanium optional)
- Polyethylene, polyurethane and FEP Teflon® cable options
- Easy export to spreadsheets & databases
- Modbus® protocol:
  - RS485 networking
  - Easy-to-use Aqua4Plus software
  - Direct read registers for use with panel meters or RTU/PLC applications
- Dual protocol available (Modbus® and SDI-12)

### DESCRIPTION

The AquiStar® CT2X is a submersible conductivity/temperature sensor with built-in datalogging. This device stores over 349,000 records of conductivity, temperature, and time data, operates with low power, and features easy to use software with powerful features. The CT2X is also available with a pressure/temperature module, giving added functionality in the same sensor housing.

The CT2X incorporates 4-pole electrode cell measurement technology. This technology reduces fringe field interference errors, lessens inaccuracy caused by polarization effects, and lowers contact resistance problems. Four-pole electrode technology also allows users to work with one electrode over a wide range of conductivity.

The conductivity probe is constructed of epoxy/graphite, making it extremely durable for use in rugged field conditions. To clean, simply scrub with a small brush.

### OPERATION

The CT2X is powered internally with two AA alkaline batteries or with an external auxiliary power supply for data intensive or SDI-12 applications. INW offers alkaline, rechargeable, and other auxiliary power systems.

The CT2X comes with powerful, easy-to-use, Windows®-based Aqua4Plus software, affording the user extensive control, including real time monitoring, flexible programming, easy field calibration, and both tabular and graphic data displays.

Aqua4Plus offers easy, two-point calibration. Simply put the probe in the desired standards, and then use the built-in field calibration utility to adjust to the correct conductivity output.

Linear and non-linear temperature compensation features add flexibility to this sensor. The user can enter specific linear temperature coefficients to match the material being sampled. Alternately, for natural waters, which do not have linear temperature coefficients, the CT2X has a non-linear natural water mode meeting DIN EN 27888 standards.



**Instrumentation  
Northwest, Inc.**

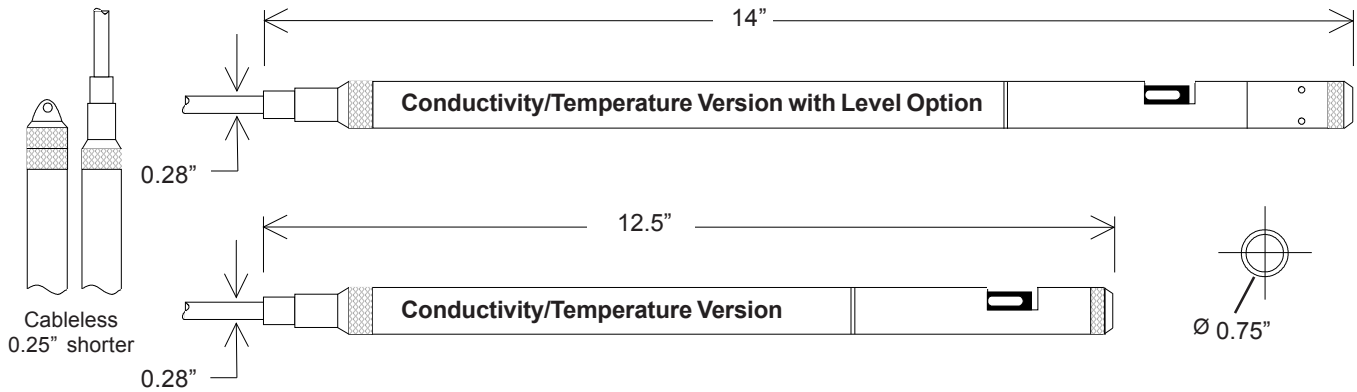
**1-800-776-9355**  
<http://www.inwusa.com>



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### DIMENSIONS AND SPECIFICATIONS



#### MECHANICAL

##### SENSOR

<b>Body Material</b>	316 stainless <i>(Titanium option)</i>
<b>Probe Material</b>	Epoxy/Graphite
<b>Electrode</b>	4-pole
<b>Wire Seal Materials</b>	Viton® and Teflon®
<b>Desiccant</b>	High- & Standard-capacity packs
<b>Terminating Connector</b>	Available
<b>Weight</b>	Less than 1 pound

##### CABLE

<b>OD</b>	0.28" maximum
<b>Break Strength</b>	138 lbs
<b>Maximum Length</b>	2000 feet
<b>Weight</b>	4 lbs. per 100 feet

#### ELECTRICAL

##### CONDUCTIVITY

<b>Static Accuracy</b>	± 0.5% of measured value
<b>Range</b>	
<b>Conductivity</b>	10 - 100,000 microSiemens/cm up to 200,000 microSiemens/cm on special order
<b>TDS</b>	4.9 - 49,000 mg/L <i>(with default TDS factor of .49)</i>
<b>Resolution</b>	0.1 for microSiemens/cm 0.001 for milliSiemens/cm 0.1 for mg/L (TDS)
<b>Operating Temp. Range</b>	0° C to 80° C

##### PRESSURE

<b>Static Accuracy</b>	± 0.1% FSO (maximum) ± 0.06% FSO (typical)
<b>Maximum Zero Offset</b>	± 0.25% FSO at 25° C
<b>Resolution</b>	16 bit
<b>Over Range Protection</b>	2x (except 300 PSI and higher)
<b>Compensated Temp. Range</b>	0° C to 40° C

##### TEMPERATURE

<b>Accuracy</b>	± 0.5° C
<b>Resolution</b>	0.1° C

## Instrumentation Northwest, Inc.



#### Sales and Service Locations

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