

CT2X Submersible Smart Sensor

CONDUCTIVITY/TEMPERATURE WITH DEPTH/LEVEL OPTION



APPLICATIONS

- Wetland surveys
- Saltwater intrusion monitoring
- Agricultural runoff studies
- Discharge monitoring

Measure and record conductivity, temperature, depth/level, salinity, all with one low power, easy-to-use smart sensor

Features

- Measures and records conductivity, temperature, and time with depth/level option
- Low power — *field replaceable AA batteries*
- Modbus® RTU (RS485) and SDI-12 interface — *great flexibility*
- 10 – 100,000 microSiemens/cm — *200,000 or 300,000 optional*
- Also measures salinity and TDS
- Linear and nLFn temperature compensation
- Small diameter — *0.75" (1.9 cm)*
- 349,000 records in non-volatile memory — *no data loss in the event of a power failure*
- Wireless connectivity — *radios and/or cellular*
- Barometric compensation utility for use with absolute sensors
- Free, easy-to-use software



EASY-TO-USE SOFTWARE

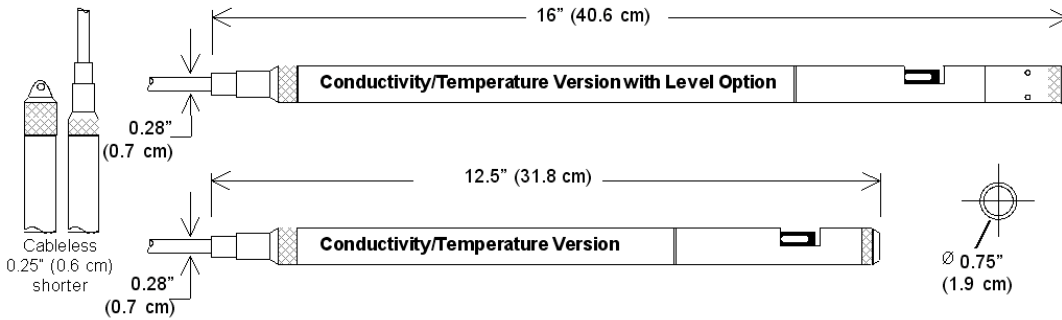
- Easy, in-field calibration
- Flexible logging sequences
- Real-time viewing
- Easy export to spreadsheets and databases
- Firmware upgradable in the field



True data, measure by measure

1-800-PRO-WELL
WWW.INWUSA.COM
CE

CT2X Submersible Smart Sensor Conductivity/Temperature with Depth/Level Option



- ¹ Storage without batteries
- ² Lithium available upon request
- ³ Requires freeze protection kit if using pressure option in water below freezing
- ⁴ Burst reduced at PSI ≥ 300
- ⁵ Higher pressure ratings available upon request
- ⁶ Accuracy reduced at levels < 10 µS/cm
- ⁷ May vary due to environmental factors

GENERAL

Length	12.5" (31.8 cm) 16.0" (40.6 cm) w/ pressure
Diameter	0.75" (1.9 cm)
Weight	1.0lb. (0.5 kg)
Body Material	Delrin® & 316 stainless or titanium
Wire Seal Materials	Viton® and Teflon®
Submersible Cable	Polyurethane, polyethylene, or FEP
Cable Weight	4lbs./100 ft (1.8 kg/30 m)
Protection Rating	IP68, NEMA 6P
Desiccant	1-3mm indicating silica gel (high or standard capacity)
Terminating Connector	Available
Communication	RS485 Modbus® RTU SDI-12 (ver.1.3)
Operating Temp. Range³	-15° C to 55° C
Storage Temp. Range¹	-40° C to 80° C

LOGGING

Memory	4MB - 349,000 records
Log Types	Variable, user-defined, logarithmic, profiled
Programmable Baud Rate	9600, 19200, 38400
Logging Rate	4x/sec maximum
Software	Complimentary Aqua4Plus or Aqua4Push
Networking	32 available addresses per junction w/ batching capabilities (up to 255)
File Formats	.xls / .csv / .a4d

POWER

Internal Battery	2x1.5V AA Alkaline ²
Auxiliary Power	12VDC - Nominal 6-15VDC - Range
Exp. Alkaline Battery Life	12 months at 15m polling interval ⁷

TEMPERATURE

Element Type	30K ohm thermistor
Element Material	Epoxy bead/external housing
Accuracy	± 0.2° C
Resolution	0.1° C
Range	-5° C to 60° C
Units	Celsius, Fahrenheit, Kelvin

DEPTH/LEVEL

Transducer Type	Silicon strain gauge
Transducer Material	316 stainless steel or titanium
Units	PSI, FtH ₂ O, inH ₂ O, cmH ₂ O, mmH ₂ O, mH ₂ O, inHg, cmHg, mmHg, Bars, mBars, kPa
Static Accuracy	± 0.05% FSO (typical) ± 0.1% FSO (maximum) (B.F.S.L. 20°C)
Resolution	0.0034% FS (typical)
Maximum Operating	1.1 x FS
Burst Pressure⁴	3.0 x FS
Compensated Range	0°C to 40°C

PRESSURE RANGES

Gauge	
FtH ₂ O ⁵	2.3, 5.8, 12, 35, 69, 115, 231, 69
mH ₂ O ⁵	0.7, 1.75, 3.5, 10.5, 21, 35, 70, 210
Absolute	
FtH ₂ O ⁵	46, 69, 115, 231, 692
mH ₂ O ⁵	14, 21, 35, 70, 210

CONDUCTIVITY

Probe Material	Epoxy/Graphite
Electrode	4-pole
Static Accuracy	± 0.5% of measured value
Resolution	32 bit
Ranges	
Conductivity ⁶	0-100,000 or 0-200,000 or 0-300,000 µS/cm
TDS	4.9-49,000 or 4.9-98,000 or 4.9-147,000 mg/L
Salinity	2-42 PSU
Units	µS/cm, mS/cm, mg/L, PSU
Resolution	0.1 µS/cm / 0.001 mS/cm / 0.1 mg/L (TDS) / 0.001 PSU
Warm-Up Time	200 msec
Thermal Compensation	None, linear, or nLFn

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SALES & SERVICE LOCATIONS

8902 122nd Avenue NE
Kirkland, WA 98033 USA
425-822-4434
FAX 425-822-8384 / info@inwusa.com

4620 Northgate Boulevard, Suite 170
Sacramento, CA 95834 USA
916-922-2900
FAX 916-648-7766 / inws@inwusa.com

1-800-PRO-WELL
WWW.INWUSA.COM

