

Water Quality Monitoring System for Natural Water, Wastewater, Water Reclamation, Aquaculture, and Brine & Brackish Water

- *Cost-effective measurement of water quality parameters including pH, ORP, conductivity, dissolved oxygen, temperature, and various ion measurements*
- *Can measure ammonia, fluoride, nitrite, nitrate, calcium, sodium, chloride, etc.*
- *Self-contained rechargeable solar battery pack operation option for remote sites*
- *100-240 VAC or 24VDC operation for sites with available power source*
- *Suitable for continuous or intermittent use with datalogging for all parameters*



Pictured: 3TX system with 6 transmitters

3TX TRANSMITTER FEATURES:

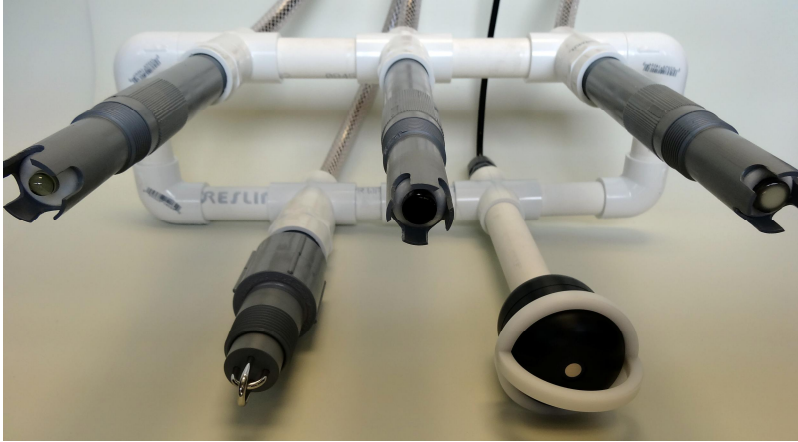
- Low power consumption (max 60mA each)
- Units can be powered on and off at will with a very short boot time
- Unified interface for all measurements
- Local display for simple calibrations
- Scalable 4-20mA standard; optional RS485 MODbus (for use with DAT datalogger)
- Compute total unbound ammonia for fluctuating pH cases (with TOT module)
- Available as complete turn-key system
- NEMA 4X assembly allows for direct installation into most any environment

3TX TRANSMITTER MODULES:

- 3TX-pH for pH & ORP measurements
- 3TX-CON for contacting conductivity measurements
- 3TX-DO for dissolved oxygen measurement with galvanic cells
- 3TX-ISE configurable for any ion selective measurement
- 3TX-TEM for analog temperature output from any sensor
- 3TX-TOT for pH compensated total ammonia species
- 3TX-DAT for field datalogging of 3TX transmitters with MODbus outputs for up to years at a time without downloading data set
- 3TX-TIM is a timer for intermittent battery-powered operation
- 3TX-BAT is an universal uninterruptible power supply for continuous measurement even at installations with unreliable power
- Solar rechargeable 24VDC power supply for completely self-contained continuous powered operation (as shown in pictures)
- 3TX-REL contact relays allow for local control and alarm function
- Remote access to logged data via Internet or wireless GSM option
- Self-contained rechargeable battery setup for temporary installations
- Wireless RS485 option, ideal for centralizing data collection



Fully Customizable Packages of Submersible Electrochemical Sensors



Sensors pictured (left to right): pH, conductivity, nitrate, dissolved oxygen, & ammonium

SENSOR FEATURES & OPTIONS:

- Assemble any combination of sensors to meet your specific monitoring needs
- Solid-state conductive polymer reference for pH, ORP & ISE sensors
- Fully submersible and waterproof
- Quick disconnect configurations
- Cable lengths up to 100 meters (330 ft.)
- “EXTREME” dehydration-resistant reference for continuous dry storage and intermittent usage of pH/ORP/ISE
- Accurate conductivity measurement for any range with wide selection of cells
- Stable and accurate dissolved oxygen readings up to 40ppm (400% saturation)

ELECTROCHEMICAL SENSORS FEATURE SUMMARY:

- pH Sensors are optimized for application with support for brine and brackish water, including specialized solid-state reference systems.
 - Calibrations: grab sample offset, 1-point, 2-point & 3-point
- ORP sensors offer low-profile rugged large surface area platinum ball sensing element for minimal fouling and easy cleaning.
 - Calibrations: 1-point offset & optional slope
- Contacting conductivity sensors with open-cell type configurations minimize fouling and provide accurate measurement at any range.
 - Calibrations: Zero dry in air and wet gain calibration
- Rugged galvanic dissolved oxygen sensors require little cleaning; recharge only every 12 to 24 months, at minimal cost.
 - Calibration is performed dry in air. No solutions needed.
- Ion selective (ISE) sensors are industrial grade, with novel proprietary chemical materials of construction for unsurpassed longevity and reliability at a fraction of the cost of many competitors.
 - No calibration standard solutions are typically required for ISE sensors. Only simple grab sample offset with portable photometer is needed for most ISE measurements.
- Platinum temperature sensors are integrated in each electrochemical cell for temperature compensation purposes. Temperature measured from each sensor can be recorded from RS845 MODbus output or via 3TX-TEM analog temperature output module option.
- Fully waterproof quick disconnect terminations available for all sensors for ease of maintenance and periodic sensor replacement.



Last Revised September 30, 2013