

High Performance Water Distribution System Remote Monitoring

Real-time Wireless Monitoring of Pressure Transients, Water Quality, Flow, or Leak Noise
From Web Application or Existing SCADA System

Product Description

The SWIMM-Monitor is a combination multi-sensor, data logger and wireless telemetry unit specifically designed for deployment in “hard to reach” places in water distribution networks such as hydrants and buried vaults. The SWIMM-Monitor wirelessly transmits sensor data, alarms, system diagnostics, and GPS location to the SWIMM-Connect or SWIMM-Watch web applications, which are provided as a turn-key Software-as-a-Service or for integration with the water utility’s existing SCADA system.

“SWIMM is the only pressure transient, water quality, and flow monitoring technology that can provide a 24-7 live continuous cellular connection to a remote server from a battery-powered portable telemetry system.”

Sensor Options

- Pressure and pressure transients (typical)
- Free and/or combined chlorine, pH, temperature (typical)
- Turbidity (typical)
- Additional Modbus RTU sensors available
- 2 DI (pulse) for flow meter integration (typical)
- 2 AI (4-20mA, 1-10V) for 3rd party analyzers

Applications

- Pressure or water quality customer complaint and response
- Pipeline break event detection and notification
- Chlorine residual and THM compliance management
- District metered area (DMA) active leak detection
- Real-time network model calibration and integration using Innovyze SCADAWatch and InfoWater software

Services

Our turn-key services include: SWIMM unit deployment and training, routine sensor maintenance and calibration, software-as-a-service (SAAS), SCADA integration, real-time data collection for modeling studies, and real-time network model development.



Pressure
Transients



Pipeline
Flow / Leak
Noise



Water
Quality



Website or
Existing
SCADA

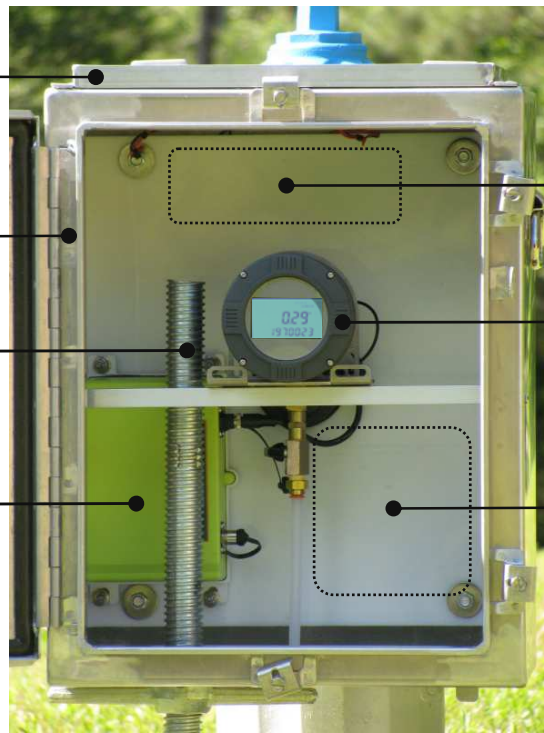


Solar Panel
(Optional, Bullet-proof)

Metal Enclosure
(Powder Coat Optional)

Support Leg / Lock Bar
(Vandal Protection)

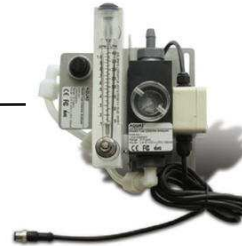
Battery Pack
(Lithium Ion, IP68,
Re-chargeable or
Single Use)



Turbidity Analyzer



Wireless RTU + Pressure Sensor
IP68, Digital Display, Data Logger,
Pressure Transient Module, RS485
Module, I/O Module, GPS Receiver



Chlorine Analyzer
IP68, Self-Cleaning, Optional
pH & Temp. Compensation

SWIMM-Monitor
Hydrant Pressure Telemetry Unit Shown Above
Upgradable with Water Quality or Leak Noise Sensors

SWIMM-Monitor™ Features:

Ultra-low Power Consumption

1-5 years on single battery charge, typical cellular upload interval (30 minutes); 24-7 live continuous cellular connection (with battery pack and solar panel)

Modular, Portable, Plug-and-Play

Compact components, simple cable connections, rapid field deployment, multiple enclosure options, easily upgradable

Waterproof (RTU, Sensors, Batteries)

All components IP68 rated, can be submerged in flooded vaults without damage

Wireless Communication Options

Cellular (CDMA or GPRS), Wi-Fi (2.4GHz or 900 MHz), Satellite, or Ethernet

Multiple Sensor Integration Options

Proprietary digital sensors / transmitters (RS485 Modbus RTU), 3rd party sensors using Modbus or analogue input (digital pulse, 4-20mA, or 1-10V)

GPS Tracking

Dedicated GPS receiver, track device location allowing office and field personnel to communicate more effectively

Alarm Notification

Multiple alarm options (SMS text on mobile phone, email, and web application)

Web Applications

SWIMM-Connect and SWIMM-Watch (see description below)

SCADA Integration

Integrate SWIMM with existing SCADA system using the provided OPC server software

Other Products & Services:

SWIMM-Controller™

All of the features of the Monitor but with the ability to control & optimize pressure & water quality at remote points in the distribution system

SWIMM-Connect™

Stand-alone real-time web monitoring for casual users, SAAS, users can monitor and manage devices, and download data from application

SWIMM-Watch™

SWIMM integration with Innovyze SCADAWatch and ESRI ArcGIS Server with ability to link with InfoWater model, stand-alone SAAS or customer's server www.innovyze.com/products/scadawatch

