

AQS-SYS

Water Network Monitoring & Leak Detection

Technical Specifications



System Performance

- Acoustic correlation leak detection and location
- Fixed sensors positioned 300-500 meters (1000-1500 feet) apart.
- Accurate leak detection from 1.5 mm (1/16") hole sizes at 3 bars
- Location accuracy <2% of distance between sensors.
- Sensor sampling 1-3 per day

Sensor Specifications

- Frequency range: 1-2000Hz
- Sensor sensitivity: <1 micro g
- Dynamic range: 20 Bit
- Communication: 3.5G cellular
- Dimensions: 230x100x60mm (9" x 3.9" x 2.4")
- Water proof: IP 67
- Sensor installation: external installation, clamp on hydrant pipe above the ground
- Temperature range: -20°:60° C (-4°:140° F)
- UV resistant
- Battery provides 5 years of operation
- Internal GPS for timing and location
- Automatic registration using GPS positioning
- Comprehensive self-test upon installation including GPS, 3G and sensor recording

Processing

- Cloud processing
- SaaS operational model
- Multi-sensor correlation-based leak detection
- Automatic adaptive filtering of signals
- Leak intensity estimation
- Automatic interference filtering: irrigation, pumps, PRV, etc)
- Statistical analysis and trending of leak development
- Sensor registration via Android App.

Web based data interface

- Tabular and map-based presentation of leaks
- Extensive reporting capabilities
- Leak repair management functions (repair orders, statistics, etc.)

Interfaces

- Presentation of leaks and sensors on GIS ESRI
- Event management software
- Asset Management Software

