

AQSense-Edge

Advanced Water Leak Detection
powered by Cat-M/NB-IoT
Acoustic Correlating Sensors



Give your ops teams an edge with the most accurate leak detection system ever.

Main Features

- Cat-M/NB-IoT Cellular communication
- 8-10 years battery life with replaceable batteries
- CE, FCC and Mil810 certifications
- Easy installation on aboveground & belowground hydrants or valves
- All pipe diameters supported
- All pipe materials supported



AQSense-Edge (AG)

The first compact acoustic correlating sensor that fits installations on all aboveground hydrants. Leak detection on metal and AC pipes up to 24". Typical installation 200-400 meters apart.



AQSense-Edge (BG)

The first-in-its-kind acoustic correlating sensor installable on belowground valve pits. Leak detection on metal and AC pipes up to 24". Typical installation 200-400 meters apart.



AQSense-Edge (Hyd)

The most advanced hydrophone designed especially for leak detection on PVC, PE and large diameter pipes. Typical installation on large diameter pipes 600-1,000 meters apart.

AQSense-Edge: Cat-M/NB-IoT Fixed Acoustic Correlating Sensors

Sensor Type/Model	Aboveground Accelerometer	Belowground Accelerometer	Belowground Hydrophone
Cellular			
Cellular Communication	Cat-M/NB-IoT		
Supported Cellular Radio Bands	Cat-M1: B1, B2, B3, B4, B5, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B66 Cat-NB1/NB2: B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B20, B25, B26, B28, B66		
Analog Recording & Performance			
Frequency range	1-1000Hz		
Dynamic range	20 Bit		
Sensitivity	<1 micro g	<1 micro g	
Pressure rating			16 Bar
Sampling	Typically once per day, configurable up to 48 times per day		
Time synchronization	Less than 1ms using RF		
Self-test	Comprehensive self-test upon installation		
Enclosure			
Water-proof	IP 65	IP 68	
Dimensions	142x72x56mm	D=64mm H=170mm	
Material	PA6 30%GF	Aluminum 6061 with anti-corrosive coating	
Weight	310g	380g	
Sensor type	Internal Accelerometer	External Accelerometer	External Hydrophone
Sensor dimensions		D=53mm H=52mm	D=42mm H=54mm
Cable length		2m for ACC	3m for hydrophone
Cable connector		M12	
Sensor weight		150g	180g
Sensor material		PA6 20%GF	SS316
Sensor threads			1" BSPT or NPT
LTE Antenna			
Type	Internal	External SMA Standard	
Dimensions		50 x 12 mm (LTE); 102 x 13 mm (FM)	
Polarization		Linear, omni directional	
Average / Peak Gain	2.3 / 3.4 dBi	2.1 / 3.5 dBi	
Interface			
Interface physical layer		BLE communication	
Mobile application support		IOS, Android	
Operating Conditions			
Certification		CE / FCC / Mil810	
Temperature range		(-10°C to 60°C) (-4°F to 140°F)	
Battery type		Replaceable Lithium Metal 3.6V battery size D	
Expected battery life		8-10 years of operation at standard conditions and 1 sample per day	
Product lifetime		Over 20 years	

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