



*Gain total control over your water distribution network by tracking all leak-specific events.*

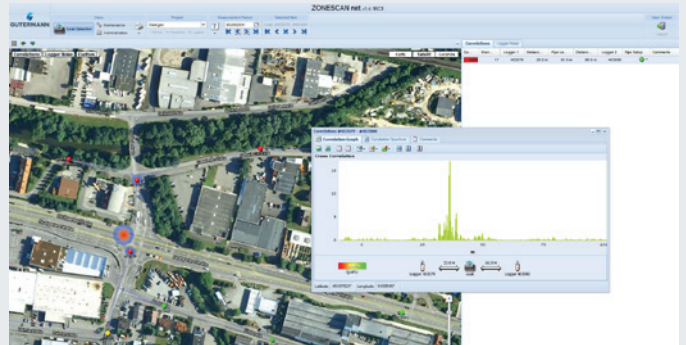


**Automatic detection and pinpointing**

The installation of the system is performed or supervised by GUTERMANN in order to ensure optimal coverage of the targeted pipe network and reliable communication. No further human field intervention is necessary for accurate leak detection, as leaks will be automatically identified and pinpointed. The leakage manager is notified within one day of their occurrence. Thanks to advanced analysis tools, non-leak noises and other interferences can be excluded to avoid false positives and reduce operating costs.

**Engineered to perfection**

The ZoneScan Alpha technology is the result of years of rigorous hardware and software engineering. Combined with GUTERMANN's unmatched expertise in communication and correlation technique, the use of high-end materials as well as in-house designed and manufactured key components (such as the radio modules), this product is second to none in the leak detection world. Our smart sensors are designed to withstand temperatures of -20°C to +80°C and the battery is tested to last for at least 5 years before it needs to be replaced.

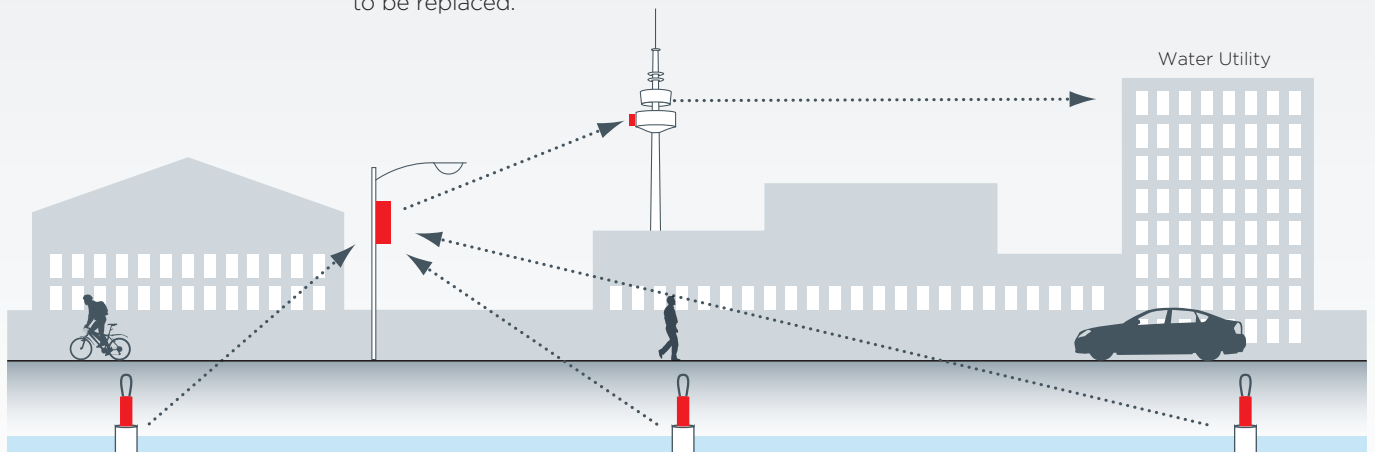


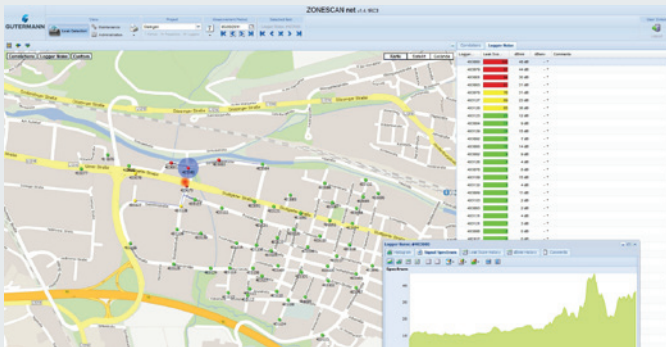
**The advantages of a fixed network**

Apart from the obvious advantage in reduction of manpower required to perform leakage surveys and detection, a fixed network installation also provides more accurate results thanks to the elimination of deployment mistakes and a greater amount of data available over time. This way, you will identify and pinpoint even smaller and more difficult leaks. Early identification and repair of leaks reduces the leak run-time and avoids larger and more dangerous pipe breakages. It reduces your water loss sustainably!

**Modularity of the ZoneScan platform**

Your ZoneScan installation can be tailored to your specific needs, size and available infrastructure. You can cover an area of 20 to several thousand measurement points. You can use your existing AMI or urban Wi-Fi network for data transmission. You can also start using your ZoneScan 820 correlating loggers in lift&shift or drive-by mode before upgrading them to fixed network monitoring operation.





### Attractive & versatile interface

All existing pipe network information, the location of each smart sensor and all leak indications are displayed on a Google Maps or StreetView interface. Each sensor can be investigated individually or cross-correlated with any other sensor. Special screens enable the operator to perform advanced filtering and spectral analysis, and a special "Leak Score" provides advice and certainty on any possible leak situation. A pipe-wizard helps you adjust your network information for any inaccuracies in your imported GIS data.

### Full transparency of the system

A special "Maintenance Screen" provides a complete overview of the entire ZoneScan network. For each individual system component the operator can retrieve a wide range of information. The system generates an automatic customizable alert if there is any problem with any of the sensors or repeaters: low battery level, out-dated firmware, stolen or displaced logger, defective sensor or antenna, or extreme outdoor temperatures. This way, the operator maintains full control over the operational performance of the system.



### Self-learning system

The ZoneScan Net software is designed to become more effective over time. You gain a vast database of historical leak and noise data including real sound recordings and you can add specific site observations such as noises (eg, from electrical sub-stations, pumps and PRVs) and pipe properties (eg. age, material, etc.) to create a powerful and self-learning asset management tool. Over time, you will gain total control over your distribution network. An event ticketing module helps you manage any problem resolution efficiently.

### Boost your image

Installing the unique ZoneScan Alpha fixed network monitoring technology will help you reduce the non-revenue water significantly and sustainably and help you anticipate larger pipe breakages that can cause significant damage. You will also be regarded as a modern, efficiently-run and environmentally conscious organisation that strives to have the best possible solution in the market for Intelligent Water Loss Management.



**ZONESCAN ALPHA**<sup>®</sup>  
Permanent Leakage Monitoring System

**Products**

1. Radio repeaters in plain plastic casing
2. Extended antenna (optional for deep chambers)
3. PDA for system setup
4. Communication link for system setup
5. Correlating radio loggers
6. Alpha unit



*More and more smart cities install ZoneScan Alpha as their all-in-one intelligent leak management system to permanently reduce Non-Revenue Water.*

**Specifications**

Specification	Correlating logger	Radio repeater	Alpha (Data collecting unit)
Ingress protection	IP68	IP68	IP67
Battery life	5 Years	5 Years	Typically more than 12 months; or unlimited when Ethernet- or solar-powered
Construction	Aluminium	Aluminium in UPVC casing	Plastic, fibre-reinforced and UV resistant
Dimensions	10cm x 4cm (4 x 1.6")	19.5 x 5 x 5cm (8 x 2 x 2")	15 x 10 x 10cm (6 x 4 x 4")
Weight	310 grams (0.7lbs)	360 grams (0.8lbs)	1 KG (2.2lbs)
Temperature range	-30° to +70°C (-22° to +158°F)	-30° to +70°C (-22° to +158°F)	-30° to +70°C (-22° to +158°F)
Communication	Proprietary radio	Proprietary radio	Bi-directional proprietary radio in, GPRS or Ethernet out

**Hardware Options**

- Custom-shaped loggers (for above ground hydrants)
- Split-unit loggers (to install the sensor in very small chambers)
- Alpha power source: solar-powered or power-over-Ethernet
- Steel eyelets on loggers to protect against theft
- Integration into customer-specific AMI infrastructure
- Country-specific radio frequency

**Technical Features**

- Either PC software or browser-based with data hosted on GUTERMANN's secured servers
- Geospatial mapping of loggers and leaks (using Google Maps and StreetView)
- Leak pinpointing accuracy of 1 m based on leak noise correlation
- Unlimited data storage
- Ability to import network specific GIS and piping data in KML format
- Maintenance mode for real-time check-up of each logger, repeater and Alpha unit
- Automatic calculation of leak probability based on several hours of acoustic logging
- Email alarm for immediate leak notification
- Event ticket management with work-flow support
- Advanced spectrum analysis for avoidance of false leak alarms created by constant mechanical noise, such as power generators, transformers or Air-conditioners
- Playback of sound recordings for noise interpretation by experienced users
- Graphical display of all historical sound histograms, frequency spectra and correlation data to investigate difficult results
- Remote access possible from anywhere in the world - even by GUTERMANN specialists to assist in difficult leak investigation
- Automatic upgrades of latest software version and firmware



Gutermann AG  
Sihlbruggstrasse 140  
CH-6340 Baar, Switzerland  
T. +41 41 7606033  
F. +41 41 7606034  
E. info@gutermann-water.com  
W. gutermann-water.com

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