

HISCAN

Permanent Trunk Main Monitoring

A permanently installed leak monitoring system for trunk mains and transmission pipelines based on correlating hydrophone sensors and solar-powered data gateways.





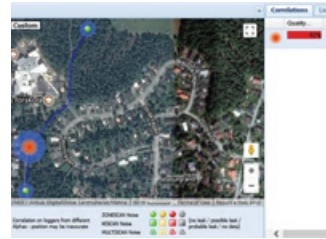
Acoustic leak detection system based on hydrophone sensors

The combination of hydrophone technology and the know-how of the GUTERMANN ZONESCAN product range produces a performance for acoustic leak detection never attained before for unmanned, permanent systems. Large amounts of data collected from sensors spaced several hundred meters apart and the ability to correlate between measurement points allow for optimised leak noise analysis and accurate pinpointing of identified leaks. HISCAN has its main focus of application on trunk mains with large diameters, but also plastic pipe networks (PE, PVC) can be monitored effectively.



Advanced signal processing for large diameter and plastic pipes

The recorded sound signal of every sensor is transmitted to a central server through GUTERMANN's proprietary transmission technology based on latest IOT technologies. Data on the server is then automatically analysed using a new generation of special algorithms. A vast variety of options are available to the user to further improve the results provided by the system: adaptive filtering, time-line analysis and optimised filters for different materials and diameters of pipes. All of GUTERMANN's know-how of over 50 years in acoustic leak detection will allow you to find the most difficult leaks in your network.



Store data on CLOUD for remote access and advanced reporting

All data recorded by the sensors is stored on the GUTERMANN CLOUD for future access. Joint platform for other GUTERMANN products you might use, e.g., ZONESCAN ALPHA; EASYSKAN or MULTISKAN. The highly optimised interface which is being used by many leak detection specialists around the world is at your disposal. Easy expert-system supported filtering or highly specialised detailed analysis in collaboration with our own specialists? The choice is yours.



Optimise usage with world renowned ZONESCAN range

You are already a user of the ZONESCAN product range? The introduction to HISCAN will be easy for you, it uses the same interface and functionalities, but now optimised for the new task at hand which require more data for signal processing and advanced reporting and allow you to fully control all leakage occurrences in your network. You are a first-time user? You will find out that the ZONESCAN product range will be the optimally complement HISCAN to allow you to cover all your needs for leak detection from one system platform.

Technical Specifications

Specification	Correlating hydrophone	Power box	ALPHA V2 Gateway
Construction	Stainless steel, 1.25" thread	Plastic	Plastic, fibre-reinforced
Ingress protection	IP68	IP68	IP67
Dimensions	60mm Ø x 68mm (2.4" Ø x 2.7")	150x80x60mm (5.9 x 3.1 x 2.4")	15 x 10 x 10 cm (6 x 4 x 4")
Weight	0.6 kg (1.3 lbs)	0.25 kg (+0.1 kg battery)	1.3 kg (2.9 lbs)
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 technology	-	Proprietary radio in, 3G or 4G out
Battery life	Powered by external power box	Exchangeable Lithium cell - Typically 5 years	Rechargeable, solar powered

Software Features

- Browser-based cloud software with data hosted on secure servers of GUTERMANN's professional hosting partners
- Geospatial mapping of loggers and leaks (using Google Maps and Street View technology)
- 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 piece of equipment
- Automatic calculation of leak probability
- 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
- Graphical display of all historical sound histograms, frequency spectra and correlation data to investigate difficult results
- Remote access possible from anywhere in the world - on demand by GUTERMANN specialists to assist in difficult leak investigation
- Automatic upgrades of latest software version and firmware



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