

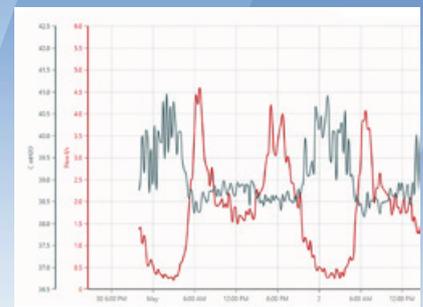
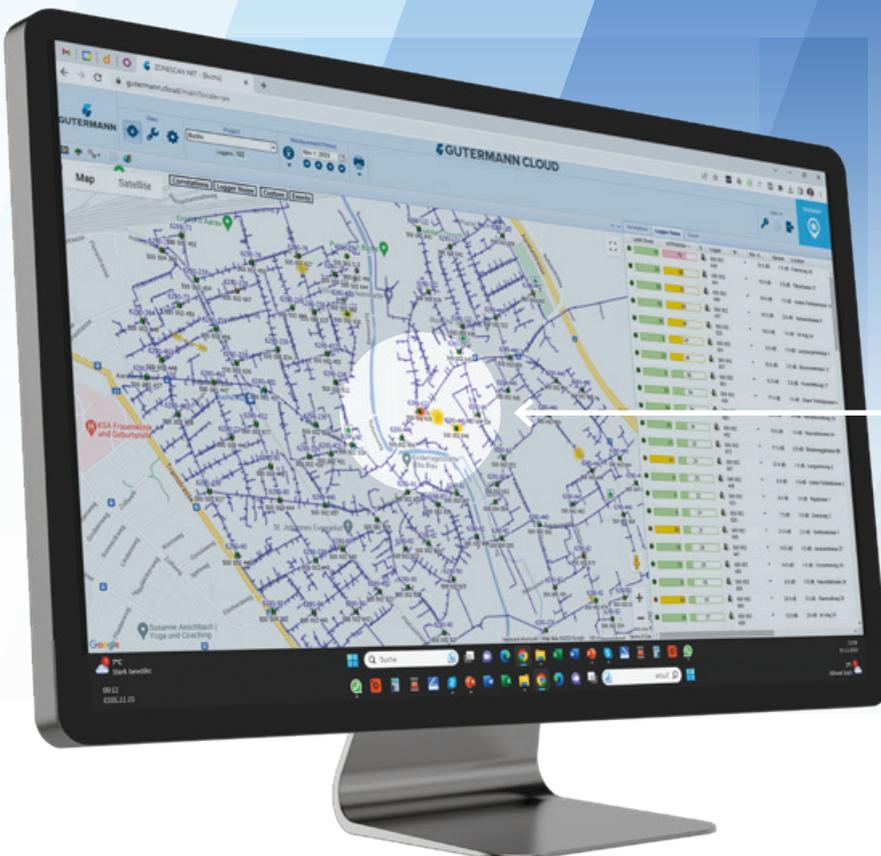
# ZONELOG

Compact IoT Pressure & Flow Data Logger

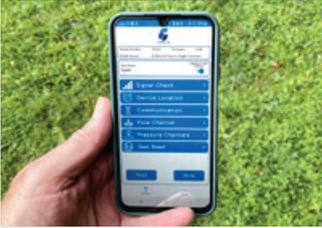
*For integrated, efficient DMA & PMA monitoring*

*This efficient 24/7 monitoring solution helps reduce Non-Revenue Water quickly.*

*ZONELOG is a compact and simple to use datalogger for near real-time pressure and flow measurements sending its data via the low power wide area networks, NB-IoT or LTE-Cat M.*



## Ease of Use



### Unique features to optimize installation & maintenance

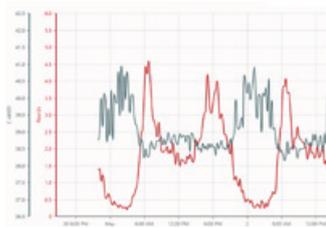
Installing a pressure and flow data logger has never been easier. The Android NFC app ZONELOG Install will guide you through the process of activating the ZONELOG data logger, registering it to the NB-IoT or CAT-M1 network, assigning its exact location and programming measurements and upload intervals via NFC or via the cloud.

ZONELOGs are typically deployed at strategic locations depending on geography, DMAs, PMAs or around PRVs. With a single unit and one of the smallest dimensions in the industry, the ZONELOG data logger fits into most chambers.

The potential maintenance of a ZONELOG is optimized by:

- Field replaceable battery
- Field accessible SIM card
- Remote battery status
- Remote temperature view
- "Zero" air-pressure feature
- Firmware upgrade over the air

## Near Real Time Data



### Precise readings 24/7

The recorded measurements of every ZONELOG are stored in the data logger's memory and uploaded via NB-IoT or CAT-M1 e.g. hourly to the ZONELOG cloud. This data can be used to auto-generate alerts 24/7 in near real time and provide advanced flow & pressure analytic alerts (e.g.: high minimum night flow = leakage) or high pressure (e.g.: PRV malfunction) events. With the integration of ZONELOG into Gutermaann's leak detection software a complete set of new features will be available.

Using a Keller pressure sensor assures highest precision & reliability over time. Combined with automatic daily time synchronization at -100ms accuracy helps delivering unprecedented results for DMA & PMA monitoring.

## Reliable Communication



### Reliable NB-IoT/ CAT-M1 data upload straight to the cloud

ZONELOG is using a dual modem for low power NB-IoT and CAT-M1 networks supported by most GSM providers.

They are well suited for battery powered devices installed in underground chambers. The use of latest chipsets, high gain antennas and good collaboration with network providers are key ingredients for reliable communication to ZONELOG cloud.

ZONELOG using NB-IoT & CAT-M1 communication significantly outperforms other devices.

- 5 years battery life with hourly data transmission
- Deep underground coverage
- Firmware and configuration upgrades over NB-IoT or LTE-M networks
- Lower communication costs
- User or factory mounted SIM card with multi network roaming option
- Outstanding typical daily read rates of >95%

## Secure Global Cloud



### Combining acoustic leak detection with pressure and flow logging

The GUTERMANN CLOUD is the industry leading software for leak analysis & NRW reduction. It has a Google Maps™ and Street View™ based user interface which allows to manage the entire leak detection infrastructure, import GIS pipe data, analyze, and process leak alarms. Parameters such as recording times, alarm thresholds and many more can be changed anytime.

An event management tool facilitates:

- Efficient workflow and the classification of leak alarms
- Track events
- User friendly direct linking from ZONELOG CLOUD to GUTERMANN CLOUD
- Generation and distribution of detailed event reports

## Technical Specifications

Flow Meter Input:	Dual channel pulse: 1 x bi-directional + 1 x forward; Flying leads with optional Mil-Spec connector
Versions:	2F1P; 2F2P; 2F (P = Pressure; F = Flow)
P sensor:	0-20 Bar (80 Bar overload); resolution <1 mbar
Ingress protection:	IP68
Dimensions (2F1P):	L: 140mm/5.5" W: 90mm/3.5" H:50mm/1.9"
Weight (2F1P):	0.4 kg (0.88 lbs)
Temperature range:	-20°C to +70°C (-4°F to +158°F)
Communication:	Cellular (NB-IoT & CAT-M1), various bands
Configuration Interface:	NFC
SIM Card:	Nano SIM Exchangeable
Battery:	3.6V, 19Ah Lithium battery
Battery life:	>5 years, depending on config., NB-IoT/ CAT-M1 coverage and ambient temperature
Antenna:	High performance extended antenna with magnetic base or compact flex antenna

## Cloud Software Features

- ✓ Browser-based cloud software with data hosted on secure servers of GUTERMANN's professional hosting partners
- ✓ Automatic multiple uploads per day
- ✓ Auto generation of alarms via cloud event settings
- ✓ Display of all historical measurement and change log data
- ✓ Geospatial mapping of data logger locations
- ✓ Maintenance mode for real-time check-up of each logger
- ✓ Event ticket management with work-flow support
- ✓ Remote access possible from anywhere in the world
- ✓ On demand assist by GUTERMANN specialists
- ✓ Automatic upgrades of cloud software, Android app, device firmware



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