

SoundSens

Bluetooth® Correlation Kit

SoundSens is a set of Bluetooth® programmable portable correlation loggers for multi-point correlation surveys delivered through our MicroStream app.

Designed for fast, field-ready leak pinpointing, SoundSens is a lightweight, multi-sensor correlation solution that captures synchronised acoustic recordings from multiple points on the pipe network and converts them into confident leak detection results.

Sensors are configured, time-synchronised and then deployed at accessible pipe assets (typically within chambers) with data collected via a simple app - removing the need for a laptop or specialist on-site setup and supporting efficient surveys in busy, real-world environments. Built for easy and quick repeatable deployment, SoundSens delivers scalable, multi-sensor leak noise correlation through rugged, portable hardware and an intuitive digital workflow.



Applications

Supporting flexible use across a wide range of survey and investigation scenarios, including complex and interconnected pipe layouts, SoundSens delivers reliable correlation analysis even in challenging field conditions.

SoundSens is supplied as a portable kit including multiple Bluetooth®-enabled sensors, a dedicated carry and charging case, chargers, and tethers. Quick pipe layout using GIS data, configuration, time synchronisation, and data retrieval can be performed through the MicroStream app. Acoustic recordings are stored locally on the sensors until retrieval, supporting reliable operation in environments with limited connectivity.

Key Features

- **App-based configuration and data retrieval:** sensors are configured, synchronised, and harvested through MicroStream app; no need for a laptop or specialist software.
- **Multi-sensor correlation:** delivers synchronised acoustic recording across multiple sensors, enabling accurate multi-point correlation.
- **Scalable:** digital workflow supports flexible, multi-sensor configurations, allowing surveys to be adapted to different site layouts and leak detection scenarios.
- **Time-synchronised recordings:** sensors are precisely time-aligned via the app to ensure reliable correlation and consistent results across deployments.
- **Repeatable survey workflows:** standardised app-led setup and retrieval promotes consistent, repeatable results across teams and surveys.
- **Dedicated carry and charging case:** supplied as a complete kit with a robust carry/charging case, chargers, and tethers to support transport, protection and efficient redeployment.
- **Fast, intuitive operation:** app-driven interface reduces setup time and operator training requirements, enabling faster surveys and quicker decision-making in the field.
- **Rugged, waterproof sensor design:** sensors are built for use in harsh field conditions, supporting reliable operation in wet and challenging environments.
- **Modern digital platform:** SoundSens combines portable hardware with an intuitive digital workflow, aligning leak detection with modern mobile and cloud-enabled practices.
- **Scheduled recording capability:** supports delayed and time-based recording sessions via the app, allowing surveys to be carried out during quieter network periods.
- **Local on-sensor data storage:** recordings are stored securely on the sensor until retrieval, ensuring reliable capture.
- **Battery-efficient operation:** low-power standby helps conserve battery life between recording and retrieval activities.
- **Cloud data upload - *paid feature:** easily show results of area survey along with photos, results of analysis and proof of work completed.
- **Re-run analysis in PermaNet Web - *paid feature:** If an error was made in the field this feature allows the user to correct the mistake without another site visit and get the value from the captured data.

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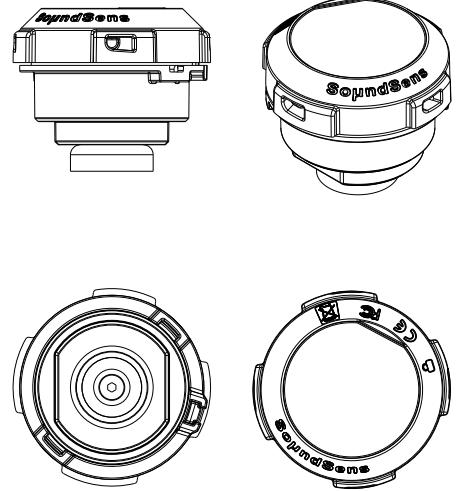
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Specifications

- Construction:** Tough durable glass filled plastic with robust waterproof seals.
- Dimensions:** Ø60 x 50 (mm) - 2.4" x 2.0"
- Weight:** 0.9kg
- Operating Temp:** -20 to +60°C (-5 to +140°F)
- Ingress Protection:** IP68 - 10m for 24 hours
- Memory:** Up to 15 minutes of audio data.
- Delayed Start:** Either start at a nominated time, on a schedule or after set delay period, e.g.; for unmanned night-time correlation.
- Power (Battery Life):** 2 weeks (Rechargeable) under typical use.
- Software:** MicroStream app.
- Connectivity:** Bluetooth®.

Carry Case Features

- Construction:** Hard wearing waterproof plastic cases with foam inserts for maximum protection. Wireless charging capability.
- Dimensions:** 340 x 300 x 150 (mm) - 13.4" x 11.8 x 5.9".
- Weight:** 3.0kg (with sensors).
- Operating Temp:** -20 to +40°C (-5 to +104°F).
- Ingress Protection:** IP54.
- Storage:** Temperature when not charging: -20°C to +60°C



MicroStream App

- Platform:** Android and iOS.
- Modes:** Standalone & DataGate modes
- Sensor Compatibility:** Up to 8 sensors
- Comms:** Bluetooth®.
- Map Support:** Google and Apple maps.
- Pipe Material:** Asbestos Cement, Cast Iron, Concrete, Ductile Iron, Copper, Lead, Ductile Iron Concrete Lined, High-Density Polyethylene (HDPE), Medium-Density Polyethylene (MDPE), PVC, Steel, or any other custom pipe material.
- Minimum Phone Requirements:**
- OS: Android 12 / iOS 15
 - RAM: 4 GB
 - Display: >6"
 - Bluetooth®: Bluetooth® LE
 - Device age: <5 years.
- Recommended Phone Requirements:**
- OS: Android 13+ (with current security patches) / latest iOS
 - RAM: 6 GB or more
 - Display: >6"
 - Bluetooth®: Bluetooth® LE
 - Device age: <2 years.

