SmartEAR®+





Efficient leak detection for a future-proof water supply

SmartEAR®+ elevates monitoring capabilities by extending beyond traditional noise logging to provide continuous measurements of pressure, temperature, and flow.











General information about SmartEAR®+

SmartEAR®+: Extra functionality, precision and performance.

In 2025, SebaKMT® is expanding its portfolio of monitoring solutions with SmartEAR®+, the latest addition to the proven SmartEAR® range of IoT noise loggers. This advanced product range combines the familiar ease of use and efficiency of the original series with extra functionality, precision and performance.

With the introduction of a specially developed CombiSense sensor that integrates pressure, temperature, and hydrophone acoustic monitoring in a single device, SmartEAR®+ is setting new standards in precise drinking water network monitoring.

SmartEAR®+ remains easy to use. The familiar SmartEAR®-GO! app from the SmartEAR® series ensures quick and easy installation as well as the usual user-friendly operation.

With SmartEAR®+, SebaKMT® is launching a solution that not only impresses with its technical superiority, but also reimagines the classic data logger in four variants.

This brochure provides detailed information about the versatile application possibilities of SmartEAR®+. Whether it's monitoring water supply networks, early leak detection or optimising operational processes, SmartEAR®+ offers solutions for a wide range of challenges.



- Please note that the information provided in this brochure regarding the launch of our new product, including specifications and features, is subject to change without notice. As we are constantly refining and improving our range of products based on feedback and further development, discrepancies between the information presented and the final product may occur. For the most up-to-date and detailed information, we recommend contacting our sales representatives or visiting our website. We appreciate your interest in our latest innovation and thank you for your understanding as we work to provide you with the best-possible products.
- SmartEAR* devices transmit data via NB-IoT and LTE-M (CAT-M1), which requires sufficient IoT network coverage at the installation site. Information about the status of NB-IoT and LTE-M network coverage can be provided by all mobile network providers. Alternatively, SebaKMT* TechSupport can be contacted to obtain such information. Using antenna extensions/amplifiers can significantly improve transmission power and optimise battery life. Battery life specifications always refer to average temperature at the measuring point, the presence of optimal reception and the continuous use of standard measurement profiles.

The four new products — ready for use with POSEYEDON®!

1. SmartEAR®+ iP

PRESSURE

TEMPERATURE

The SmartEAR®+ iP is a specialised pressure measuring device for detecting critical faults in water reservoirs and supply shafts. It provides accurate pressure and temperature data to ensure system integrity and prevent water loss due to leaks or breakage.

3. SmartEAR®+ ePF

PRESSURE

FLOW

The SmartEAR®+ ePF improves the efficiency and reliability of water distribution networks, especially in main pipes or water meters without monitoring. It collects flow and/or pressure data from external sensors to accurately analyse distribution dynamics.

2. SmartEAR®+ eC

PRESSURE

ACOUSTICS

TEMPERATURE

The SmartEAR®+eC has been specially developed for leak detection in main pipes and plastic pipes. With high precision, it helps to reduce water losses and supports a preventive maintenance strategy in the water network.

4. SmartEAR®+ eH

ACOUSTICS

The SmartEAR®+ eH detects leaks in water distribution networks, pipelines and industrial plants using hydrophones such as PAM Hydro-3 and Hydro-SL. Measurement data is securely transmitted to the POSEYEDON® cloud, enabling precise leak monitoring.

The SmartEAR®+ series from SebaKMT® offers a range of device variants that are specifically designed to meet the diverse requirements of water distribution network monitoring by means of measurements. Thanks to state-of-the-art sensor technology and data processing, our devices enable more efficient analysis and early detection of critical changes in the network.

Whether for detailed flow analysis, pressure management, or leak detection, SmartEAR®+ is designed to raise the standards for monitoring and maintaining water networks.



SmartEAR®+ iP



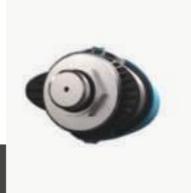
Accurate pressure measurement in water reservoirs is essential for maintaining optimal system performance. Supply shafts, which are central access points for maintenance and inspection of the water network, also require accurate pressure data to maintain the reliability and safety of the infrastructure.

The SmartEAR®+ iP is specifically designed for these environments, offering continuous monitoring of pressure and temperature. This real-time tracking enables immediate responses to anomalies, helping to prevent the risks associated with pressure fluctuations.

For installation, the SmartEAR®+ iP can be equipped with an underground hydrant adapter, making it suitable for use in a variety of environments, including underground environments where traditional mounting options may not be feasible.







Functions

- Permanent pressure and temperature monitoring for reliable network monitoring and early detection of irregularities
- Extended Battery Life with up to seven years operation, battery replacement on site without compromising the protection class (IP68)
- NB-IoT and LTE-M combo modem for long-range transmission and Bluetooth Low Energy (BLE) for local setup and data readout
- Easy operation via the SmartEAR®-GO! app (Android and iOS) with FOTA firmware updates in POSEYEDON® and via Bluetooth



Discover our SmartEAR®+ products in AR!

With our Augment Reality application you can experience our products digitally — directly in your environment and in impressive detail.

Application areas

Water distribution networks, pressure management, leak detection, and network monitoring

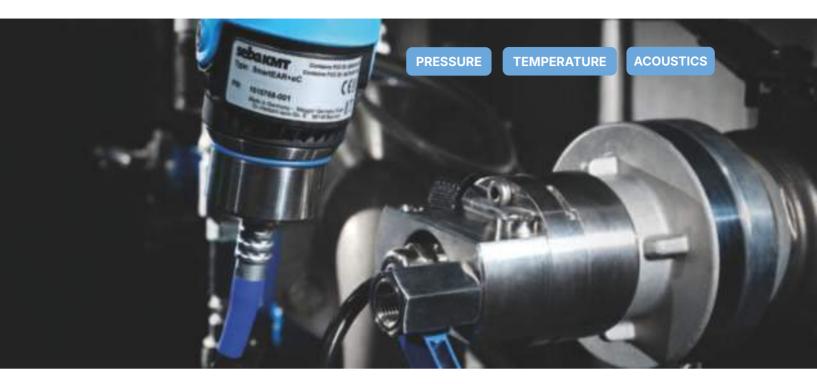
The SmartEAR®+ iP is engineered to enhance pressure management, leak detection, and overall network monitoring. By continuously measuring pressure and temperature, it enables early detection of fluctuations and leaks, ensuring network stability and a reliable water supply.

Equipped with NB-IoT and LTE-M connectivity, the device transmits data securely and efficiently, supporting optimal control of pressure-reducing valves. Its IP68-rated protection makes it suitable for deployment in shafts, main pipelines, and remote sections of the network.

Installation and configuration are streamlined through the intuitive SmartEAR®-GO! app, available for both Android and iOS platforms. Utilizing the POSEYEDON® Cloud, the device facilitates real-time data analysis, aiding in proactive maintenance planning and reducing unplanned repairs. By integrating continuous monitoring with advanced data analytics, the SmartEAR®+ iP empowers water utilities to minimize network losses and enhance operational efficiency.



SmartEAR®+ eC



The SmartEAR®+ eC enables reliable leak detection in water distribution networks, especially on main pipes and plastic pipes. It combines hydrophone acoustics, pressure, and temperature measurement in one device and offers configurable measurement and upload times.

IP68 protection makes it suitable for demanding environments such as shafts and hard-to-reach network areas. Data transmission via NB-IoT and LTE-M ensures secure remote monitoring, while Bluetooth Low Energy (BLE) enables a local connection.

The robust stainless steel housing (V4A) offers flexible mounting options. The sensor measures pressure up to 16 bar as standard.

Commissioning is simple via the SmartEAR®-GO! app (Android and iOS), which supports real-time measurements, battery status, and log file analyses. With up to seven years battery life in the standard profile, a replaceable battery, and certification for drinking water, SmartEAR®+ eC is a reliable solution for network monitoring and efficient leak detection.









Application areas

Water distribution networks, main pipes, plastic pipes

SmartEAR®+ eC has been developed for leak detection and network monitoring in main pipes, plastic pipes (WDN) and hard-to-reach areas. Using hydrophone acoustics, pressure and temperature measurement, it detects even the smallest leaks and pressure fluctuations.

Thanks to its IP68 protection class, it is suitable for use in shafts and underground network sections, while NB-IoT and LTE-M enable reliable remote monitoring. Water suppliers benefit from less water loss and more efficient maintenance operations.



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Functions

- Captures hydrophone acoustics, pressure, and temperature in a single device for early detection of even the smallest leaks
- NB-IoT and LTE-M data transmission enables secure, location-independent network monitoring
- IP68-certified for permanent use in shafts, main pipes, and underground network areas
- Various mounting options (e.g., magnetic ring, loop, GEKA, Storz, threaded fittings, UF adapter, thread adapter) and intuitive control via the SmartEAR®-GO! app
- Up to seven years battery life, easy to replace the battery without compromising the protection class

SmartEAR®+ ePF



The SmartEAR®+ ePF is a cutting-edge solution for digitizing existing water distribution networks. It enables precise monitoring of pressure conditions, particularly at pressure-reducing valves (PRVs), by measuring inlet and outlet pressures. Additionally, it can transform mechanical water meters into intelligent, connected sensors, facilitating continuous analysis of pressure and flow data to identify irregularities and potential leaks.

With its robust design and IP68 protection rating, the SmartEAR®+ ePF is ideal for deployment in shafts, main pipelines, and hard-to-access areas. Data transmission is securely handled via NB-IoT and LTE-M, while Bluetooth Low Energy (BLE) allows for straightforward local configuration. An integrated ring memory ensures that no critical measurement data is lost.

Commissioning and configuration are simplified through the SmartEAR®-GO! app, available for Android and iOS. With a battery life of up to seven years under standard profiles and the capability to connect external pressure and flow sensors, the SmartEAR®+ ePF offers a flexible and future-proof solution for water utilities and network operators. Integration with the POSEYEDON® Cloud enables continuous, remote data analysis for sustainable water management. By leveraging the SmartEAR®+ ePF, water providers can efficiently monitor their infrastructure, optimize pressure conditions, and gain valuable insights to reduce water losses and enhance network stability.







Functions

- Up to seven years battery life, easy to replace the battery on site without compromising the protection class
- SmartEAR®-GO! app for customised configuration, real-time measurement, and data evaluation, supported by an internal ring memory
- NB-IoT and LTE-M data transmission for reliable data transmission, complemented by Bluetooth Low Energy (BLE) for local operation
- Digitisation of mechanical water meter data and connection to existing pressure or temperature sensors for precise network monitoring
- IP68 protection class for safe use in shafts, service pipes and pumping stations



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Application areas

Water distribution networks, pressure-reducing valves, main pipes, and mechanical water meters

The SmartEAR®+ ePF enables the monitoring and digitalisation of water networks, especially in main pipes and water distribution networks. It records pressure and flow data, detects network losses early, and digitalises mechanical temperature meters without replacing existing systems.

It offers parallel measurements from two pressure sensors and a water meter, particularly in pressure-reducing valves. Thanks to its IP68 protection class, it is suitable for shafts and underground pipes. NB-IoT and LTE-M data transmission and Bluetooth connectivity enable reliable remote monitoring and easy maintenance to minimise water loss and reduce operating costs.



SmartEAR®+ eH

ACOUSTICS



The SmartEAR®+ eH is an innovative solution for precise leak monitoring in water distribution networks, long-distance pipelines, and industrial facilities. As an advanced addition to the proven SmartEAR®+ series, it enables direct integration with hydrophones such as the PAM Hydro-3 and PAM Hydro-SL, reliably transmitting measurement data to SebaKMT®'s POSEYEDON® cloud platform.

Utilising state-of-the-art digital signal processing and intelligent algorithms, the SmartEAR®+ eH can detect even the smallest leaks at an early stage. Its ability to generate leak lines through online correlation makes it an essential tool for utilities and service providers aiming for efficient, cost-effective, and sustainable network monitoring.

Commissioning is straightforward via the SmartEAR®-GO! app, which ensures secure wireless communication and seamless IoT scalability. Whether deployed for short-term measurements or permanent monitoring, the SmartEAR®+ eH plays a vital role in reducing water losses and optimising maintenance strategies in modern water networks.







Application areas

Efficient leak monitoring in water distribution networks, long-distance water pipes, and industrial plants

The SmartEAR®+ eH is the ideal solution for acoustic leak detection in water distribution networks, large-scale long-distance water pipes, and industrial water systems. Seamless integration into the POSEYEDON® cloud platform ensures that data is transmitted securely and quickly. Whether for temporary use or permanent monitoring, the SmartEAR®+ eH optimises leak detection and contributes to sustainable water supply.





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Functions

- Compatibility with hydrophones (Hydro-3, Hydro-SL) for highly sensitive sound recording
- Automatic data transfer to the POSEYEDON® cloud via NB-IoT/LTE-M with encrypted communication
- Temporary and permanent leak monitoring for network operation and maintenance applications
- App-assisted installation and commissioning with quick configuration and automatic sensor detection
- Early leak detection with EAR systems to prevent water loss
- Reliable leak detection through acoustic analysis



Discover SmartEAR®+ in AR!

With Augmented Reality (AR), you can experience SebaKMT® SmartEAR®+ products in a completely new way — directly in your environment and in impressive detail. Thanks to state-of-the-art AR technology, you can explore our leak detection systems interactively, view them from different angles and experience their design up close — without the need for physical sample devices.

Simply project the SmartEAR®+ eH, ePF, IP, or CombiSense sensor into your workspace to get a realistic impression of its size, design, and connections. This enables you to see how the devices can be integrated into your existing infrastructure before you even start using them.

Experience the design in 3D, discover relevant connections and functions and gain a whole new perspective on our high-precision monitoring solutions.

Immerse yourself in the future of SmartEAR®+ with AR — for an intuitive, practical and innovative product experience!



SmartEAR®+ iP



SmartEAR®+ ePF



SmartEAR®+ eH



SmartEAR®+ eC





SmartEAR-GO! app

A key element of SmartEAR® products is the SmartEAR®-GO! app. Its user-friendly interface is designed to save time and increase efficiency. We understand that complexity often leads to frustration, especially when it comes to fine-tuning technological devices. That's why the SmartEAR®-GO! app was designed with an intuitive layout that is easy to understand, even for users without technical knowledge. Whether you want to customise your device's ambient settings or configure specific functions, the app allows you to make the desired changes quickly and efficiently.

Available in both the Apple App Store and the Google Play Store, the SmartEAR®-GO! app ensures that all users have access to advanced product functions, regardless of their device. Anyone who uses our SmartEAR®+ devices can enjoy full control, supported by the power and flexibility of our app.











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