SEBAFLOW SERIES

Actively reduce water losses
with permanent zone monitoring

sebaKMT
by Megger®

NEW

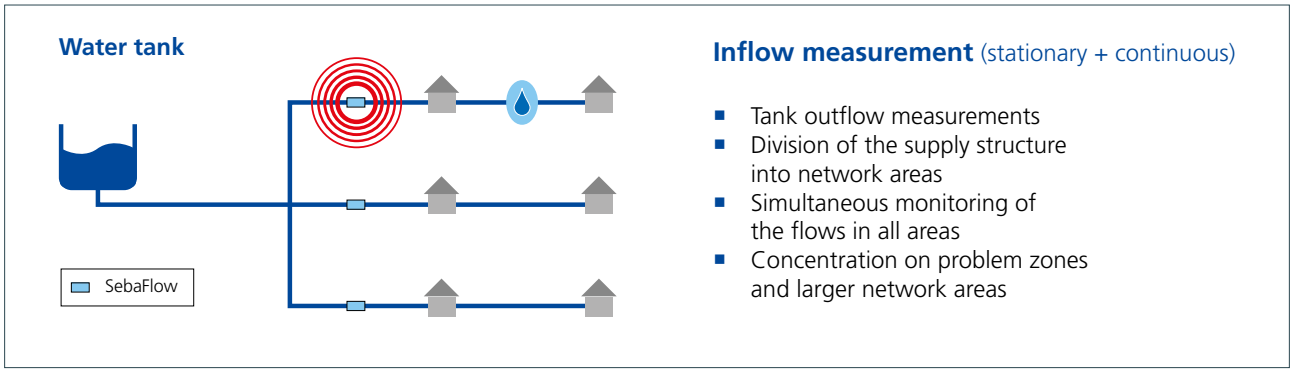
The world`s first battery-powered ultrasonic flow and pressure monitoring system

SEBAFLOW-CLASSIC & SEBAFLOW-BAT

Ultrasonic flow measurement – precise, cost-effective, maintenance-free

Conventional measurement methods, such as the widely used Woltmann meters, impellers or magnetic-inductive methods, face the problem that, especially at flow rates of < 2 m/s, measurement deviations can be enormous despite official calibration. In addition, mechanical as well as fluid-dynamic measuring methods are subject to physically induced wear, which can cause zero point drifts which in turn lead to erroneous measured values.

SebaKMT has been pursuing flow measurement using ultrasonic technology for some time. The SebaFlow-CLASSIC system, which requires a permanent power supply, has already been installed at numerous customers worldwide and is successfully used in combination with SebaCloud, the SebaKMT online server.



Advantages of ultrasonic technology

As the SebaFlow does not come into contact with the drinking water through the use of ultrasonic technology in the "clamp-on process", possible contamination and additional costs are prevented that can occur with other technologies. Another advantage of the SebaFlow technology is the accurate and reproducible measured values, especially at very low flows < 0.2 m/s, which are present in the drinking water network of many water suppliers.

The sensor pairs are already calibrated at the factory, which simplifies and speeds up commissioning. Furthermore, SebaFlow is wear-free and drift-free. This prevents faulty measurement results and reduces possible follow-up costs.

Suitable for outdoor use? Of course!

In addition to the familiar above-ground controlcabinet with IP43 classification, the new SebaFlow-BAT solution appears in the guise of a stainless steel housing. This advantage is particularly useful for operation in maintenance shafts or underneath walkways. In addition to the two housing variants, SebaFlow-BAT – when in operation in pumping stations, elevated tanks or other protected environments – can also be installed and operated completely without a housing.

In such cases, all assemblies are simply mounted on the supplied mounting plate. This in turn can be securely fastened to walls, for example.

The IP 68 stainless steel housing passes even the toughest drop and leak tests. It can also withstand prolonged flooding at a depth of 1.2 m for over 68 hours.

SEBAFLOW CLASSIC

Permanently powered ultrasonic flow measurement system

SebaFlow enables permanent flow and zone monitoring of a pipe network section (DMA: District Metered Area) by means of ultrasonic technology. SebaFlow CLASSIC works completely independent of material. This means that measurement or monitoring is possible on all pipe types. The existing infrastructure (for example, street lighting) can be used for power supply.

The additionally integrated rechargeable battery ensures uninterrupted operational readiness for several days. The collected data is sent to the new SebaKMT cloud platform POSEYEDON via LTE/GSM modem.

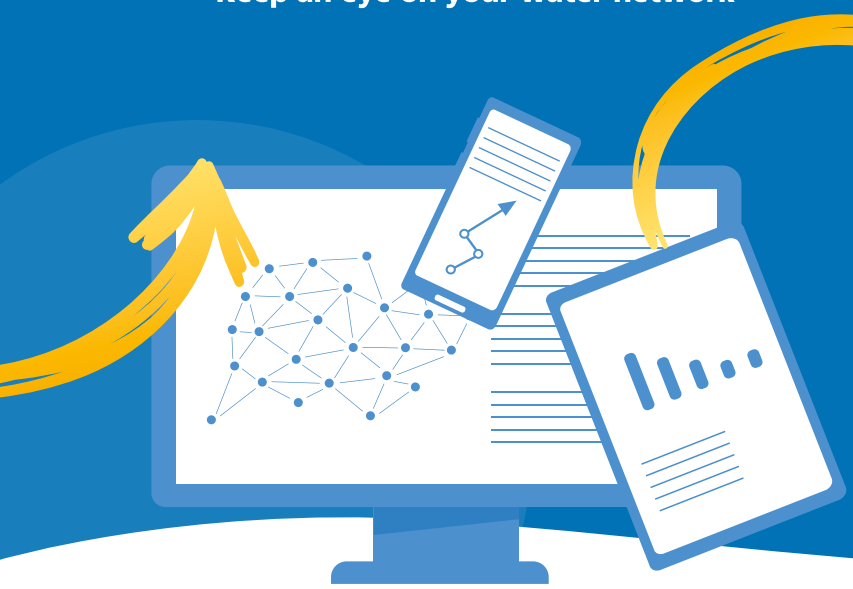
Watch our user video (2:40 min) for further Information about the technology and the installation.

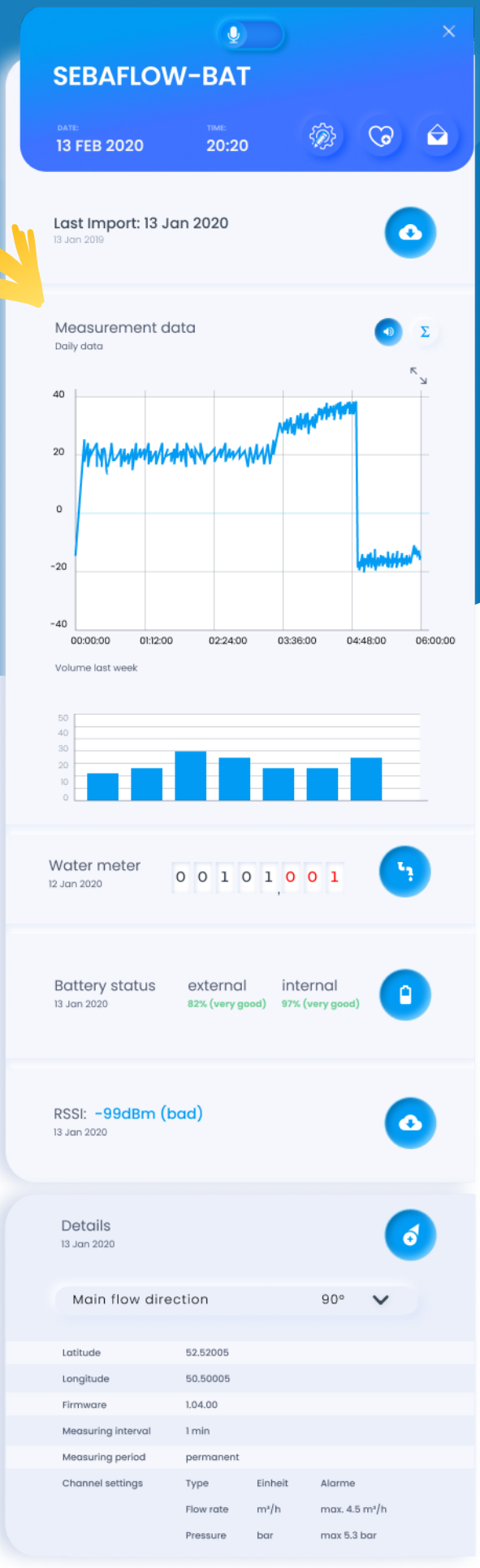
Simply scan the QR code with a smartphone or visit our homepage

LTE LoRaWAN® NB-IoT

POSEYEDON

Keep an eye on your water network





The cloud solution for leak detection and asset management that helps you minimize water losses!

- All live data and evaluations under control anytime and anywhere
- Easy to understand and clear user interface
- Stable, fast, secure and energy efficient data transfer
- Automatic online correlation
- Continuous development of functions (for example, pattern recognition)

Watch our explanation video (2:50 Min) for further Information.

Simply scan the QR code with a smartphone or visit our homepage www.poseyedon.com

SEBAFLOW-BAT NEW

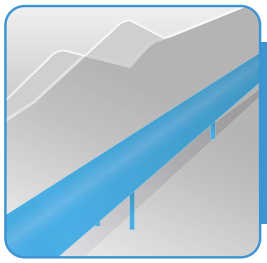
The world's first battery-powered ultrasonic flow and pressure monitoring system

The SebaFlow-BAT now extends and optimizes the SebaKMT device series SebaFlow. As the first manufacturer of fully comprehensive measuring systems to date, SebaKMT has had a completely self-sufficient, battery-powered ultrasonic flow measurement including data transmission in its product range since the end of 2020. Following the requirements of our customers from the a reas of pipeline network planning, as well as balancing and billing, the following requirements were defined as particularly important:

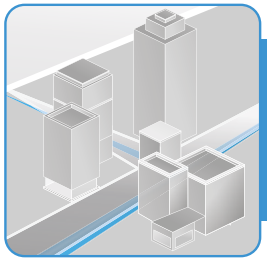
- No permanent power supply necessary
- Floodable IP 68 housing variant
- Battery life of 1 year or more
- Measuring point equipment can be flexibly adapted to customer requirements

Addressed application fields – or, who actually needs that?

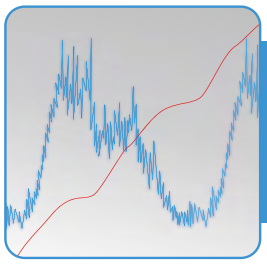
Pressure-based and flow-based leak detection on fire extinguishing lines, for example, on airport tarmacs.



Leak detection on long-distance water pipelines (trunk mains) by pressure-monitoring and flow monitoring. Extension by sensor technology, such as quality measuring probes or monitoring technology possible.



Pressure and flow measurements on urban drinking water networks. Here it complements the permanently supplied SebaFlow-CLASSIC systems in that measuring points without access to a permanent power supply can now also be used.



Periodic night minimum or night consumption measurements for leak detection.

The problem with the power supply

Based on a measurement interval of 5 minutes (usually sufficient for balancing), the SebaFlow-BAT, with its integrated 100 Ah lead crystal battery, achieves a runtime of at least 1 year. With the appropriate application, which is not aimed at the most exact balancing, the running time is extended even at 10 minute intervals to well over 1 year.

In addition to the 5 or 10 minute intervals, the SebaFlow-BAT systems can be freely parameterized, starting with 1–60 minutes. If a pressure sensor is used in parallel, the pressure measurement values are transmitted at the same interval as the flow measurement.

For this purpose SebaKMT provides the Jumo PT-30/10 bar/ front-flush as an option.

Performance comparison of the two systems

SebaFlow		
Functions	**CLASSIC**	**BAT** NEW
Self-sufficient battery operated*	⊘	✓
Flow measurement via ModBus**	⊘	✓
Flow measurement via current loop	✓	✓
Pressure monitoring in parallel (no transients)	⊘	✓
Pulse values	✓	⊘
CSV uploads	✓	⊘
Remote configuration via POSEYEDON	✓	✓
LTE 4G data transfer***	⊘	✓
Battery low alarm	✓	✓
Flow limit alarm	✓	✓
Remote updates via POSEYEDON or on site	✓	✓
Create accounting/balances in POSEYEDON	✓	✓
Flexible power supply (batt./perm.)	⊘	✓

*) 1 year battery life at 5 minute intervals

**) Not remotely configurable!

***) NB-IoT, LoRa-WAN coming soon!

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