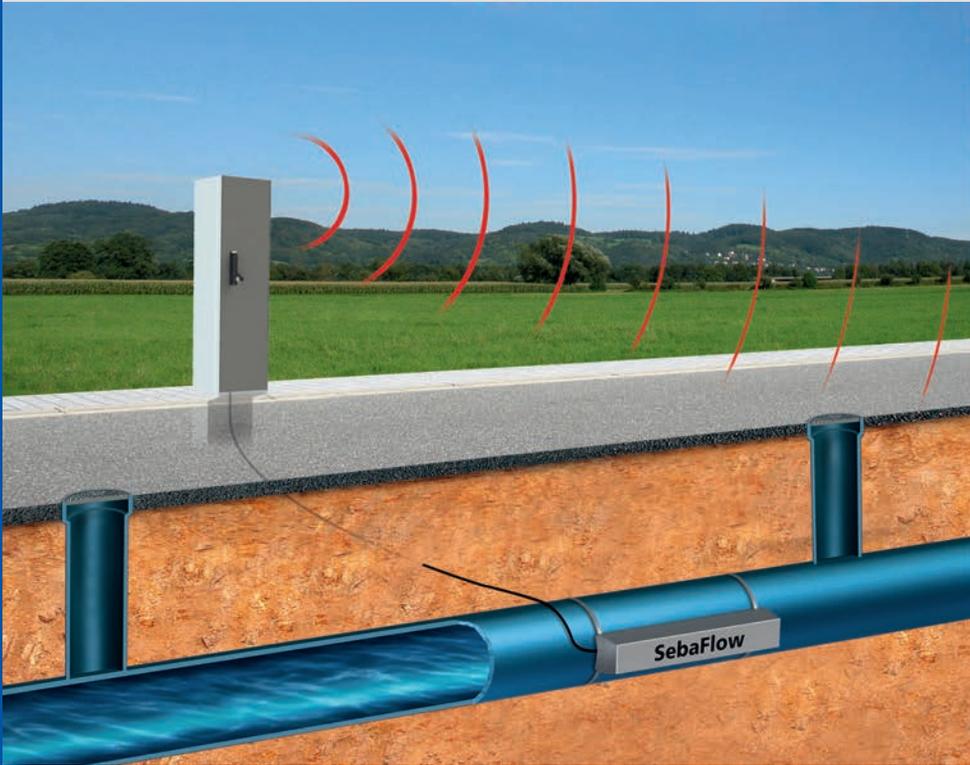


Continuous zone monitoring and flow measurement with ultrasonics



SebaFlow

- Maintenance-free flow measurement
- Early leak detection
- Installation without supply interruption
- No chamber construction necessary
- Precise measurements even at low flow rates
- Data transmission to the SebaCloud or to the customer's own FTP server



SebaFlow – cost-effective and efficient

Description

SebaFlow enables the continuous flow and zone monitoring of a pipe network section (DMA District Metering Area) through the use of ultrasonics.

Installation is managed without interrupting the water supply by means of attaching sensors to the outside wall of the pipe. SebaFlow is robust and maintenance-free, allowing installation without chamber construction.

SebaFlow operates regardless of the material. This means measuring or monitoring is possible on all types of pipe.

Pre-existing infrastructure can be used for the power supply (e.g. street lighting). A battery is also incorporated ensuring full operational readiness for several days.

All the data collected is sent via GSM modem to an FTP server. Using the SebaCloud or SebaDataView, the measured data can be easily read and evaluated.

An alarm and threshold setting function help to ensure quick and efficient intervention in emergencies.

SebaFlow also supports remote monitoring and remote configuration via GSM so that, once installed, SebaFlow can be controlled and monitored from head office.



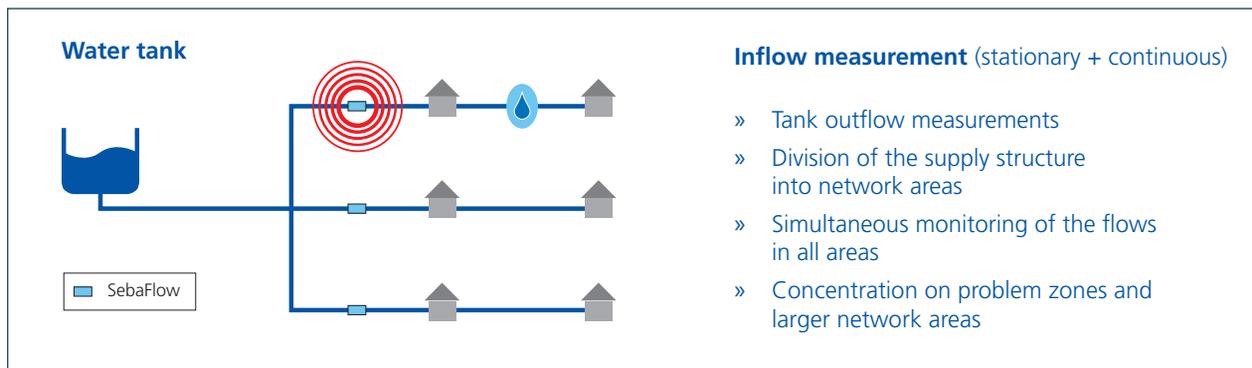
The ultrasonic sensors are wear-free, maintenance-free and have a high measurement accuracy, particularly at low flow velocities. A robust housing provides them with secure and permanent protection.

The advantages of ultrasonic technology

Advantages

As SebaFlow does not come into contact with the drinking water due to ultrasonics, potential contaminants, as with other technologies, are prevented. The precise and reproducible measurements which you receive, particularly at low flow rates, represent a further advantage of SebaFlow technology.

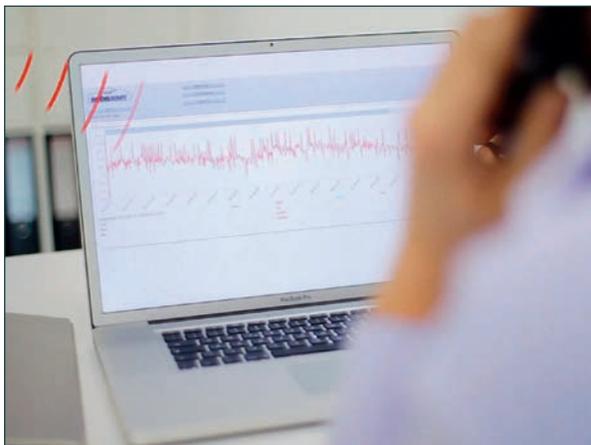
The sensor pairs are precalibrated in the factory, which simplifies and saves time when setting up. SebaFlow is also wear and drift free. This prevents incorrect measurement results and reduces potential follow-up costs.



Cost-effective installation without chamber construction



Fast installation without supply interruption



Monitoring measured data easily from the office

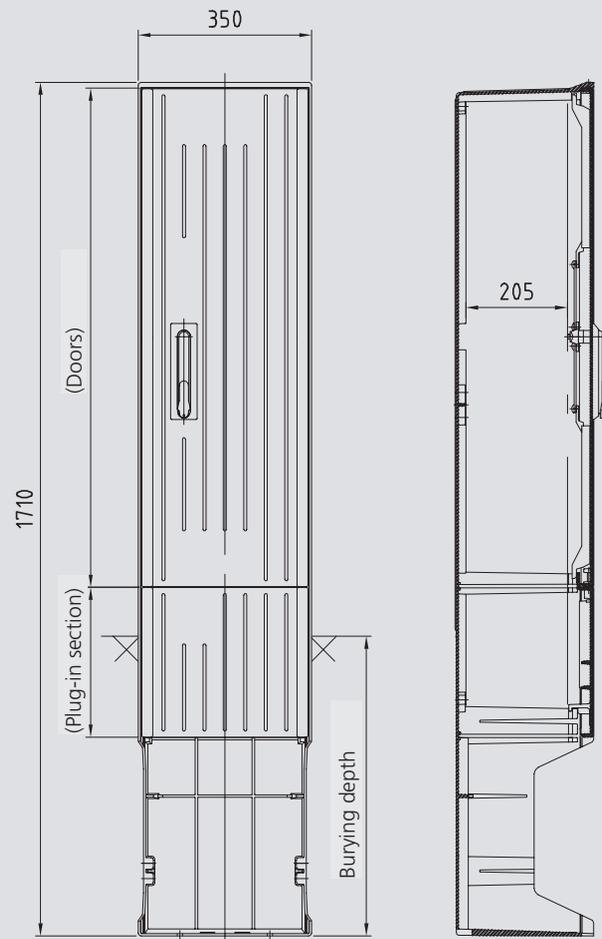
Watch our user video (2:40 min) for further information about the technology and the installation.

Simply scan the QR code with a smartphone or visit our water blog www.reduce-nrw.com.



Technical data

Measurement unit	
Operating range	max. DN 2500
Power supply	230 V external
USV (battery-buffered)	up to 48 h (5 h charging time)
Operating temperature	-30 °C to +100 °C
Communication/ frequency	868 MHz (in Europe) 913 / 916 MHz (country-specific) Data transfer (GSM / GPRS) 850 / 900 / 1800 / 1900 MHz
Configuration	local -> SDV or FTP config -> SDV & SebaCloud
Recording	1 s to 24 h
Alarm	via SMS and email In the event of an alarm, measured data is sent to the FTP server and stored
Measurement range of the sensors	
Flow speed	0.001 m/s to 25 m/s
Resolution	0.025 cm/s
Reproducibility	0.25% of measured value ± 1 cm/s
Volumetric flow	1.8% of measured value ± 1 cm/s
Dimensions	
Distribution box without base	350 x 272 x 1300 mm
Distribution box with base	350 x 272 x 1710 mm
Measurement unit	max. 560 x 126 x 120 mm
Protection class	
Sensors	IP 68*; longitudinally watertight
Distribution box	IP 43



Dimensions Distribution box

* Test conditions: 3 months / 2 bar (20 m) / 20 °C



Scope of delivery

- Pair of sensors
- Mounting rail
- Protective housing for sensors
- Fully equipped distribution box