RBS wave
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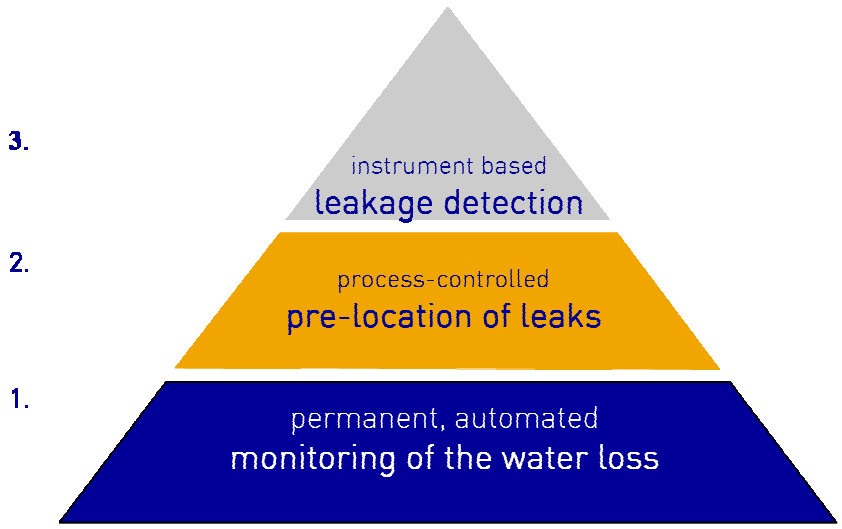
Die Spezialisten.

LeakControl

Water loss monitoring



3-step operation of the RBS wave GmbH

Benefits at a glance

- Software based positioning and leak localisation
- Measurement through all pipe materials and dimensions
- Installation without disruption
- Efficient ultrasonic measuring technique
- Network monitoring
- Variety of parameter functions

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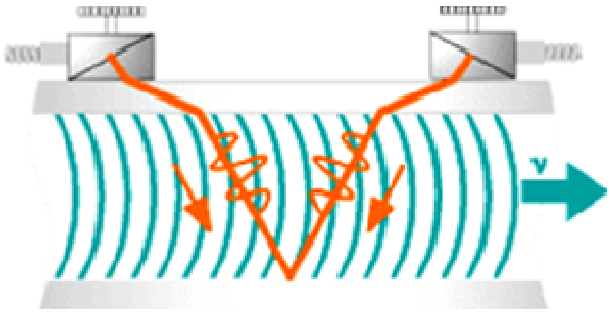
Working principles

The ultrasonic flow measuring system LeakControl has been developed for long term monitoring of a pipe section in a network (DMA - District Metering Areas).
It is intended to be permanently installed above ground in a weather proof housing.

The flow is determined by ultrasonic sensors which are fitted on the outside of the pipe. The installation is carried out without interrupting the water supply.



measurement method "Ultrasonic"

Furthermore, the ultrasonic measurement has the advantage that it is suitable for all pipe materials and requires no maintenance after installation and configuration.
Cables that have already been laid (e.g. for street lamps) can be used for power supply which in turn feeds a battery. This also allows measurements to be carried out during the day.

A UPS, which is also integrated into the LeakControl-system, can maintain operation for up to 24 hours if the external power supply is dis-connected. The optimal position of the sensors in the network can be set up by using LeakControl–PositionOptimizer, based on a hydraulic modelling.

Mounting of the mechanical protection

Installation of the sensors

All the collected data is sent by a GSM modem to a PC via SMS or to a Webserver via GPRS. Thereafter, the measurement data can be transferred as often as required. User selectable measurement periods provide additional options, such as being able to take measurements not only at night.

The data of the user friendly software can be read and evaluated by the internet conveniently. An alarm function and limit setting function are included, so a quick and efficient reaction in emergencies is ensured.

LeakControl also supports the remote maintenance and the remote configuration via GSM, so that LeakControl can be controlled from the head office after the installation of the system.
In combination with LeakControl-LeakageFinder, the time for localizing a leakage will be reduced to a minimum.

Technical data

Measurement range of the sensors

• Flow speed	0,01m/s ... 25 m/s
• Resolution	0.025 cm/s
• Reproducibility	0.25 % of reading ±1 cm/s
• Volumetric flow	±2 % of reading ±1 cm/s
• Operating range	Up to DN 1400
• Operating temperature	-30 ... 100 °C

General technical data

• Power supply	110-230 V (50-60 Hz);
• UPS/Battery power	Charging time: 4 hours Measuring time: 2 hours (extended version: 24) Standby: 24 hours
• Data transfer	GSM or GPRS
• Data protocols	IEC 80670-5-104, OPC, LC-protocol

Degree of protection

• Sensors	IP 68
• Distribution box	IP 43

Dimensions

• Distribution box without base	350 x 272 x 1,300 cm
• Distribution box with base	350 x 272 x 1,700 cm