



LEAKCELL

FOR EASY FLOW LOGGING

FIXED AND PORTABLE ZONING OF WATER SUPPLY NETWORKS

- Permanently installed zoning of water supply networks
- Temporary zoning of water supply networks with up to one week of battery life
- Online flow logging thru mobile network

Municipalities have a constant challenge in gaining control over and rectifying leaks in the water supply network. It's a big problem not to know where the leaks are located as it's like looking for a needle in a haystack. Therefore, the water supply networks must be divided into zones in order to delimit the search areas in an efficient manner.

LEAKCELL® is a fully assembled product that is adapted as needed regarding the number of measuring points, logging of flow data, power supply. Complete flow logging via web portal and mobile app, or direct connect to a fixed IP address where other control systems can get actual measuring data. With the help of LEAKCELL®, municipalities can place their measuring points in places that are otherwise inaccessible for measurement regarding power supply and data signal for remote reading. This completely without the need for its own infrastructure for power and data communication.

LEAKCELL® is available in versions for fixed installations with one or more measuring points combined, or as a portable version for temporary flow logging.



LEAKCELL® model LC322 with three ultrasonic flow meters, battery bank, charging regulator and web portal mobile transmitters



LEAKCELL® model LCPD, a portable ultrasonic flowmeter with 150 hours of battery time, connected via mobile network to a web portal for flow logging, or thru a fixed IP address where your own operational control system collects flow data in real time.



USEFUL FACTS ABOUT PORTABLE FLOW METERS

LEAKCELL model LCPD is a portable version that can be used to make temporary flow measurements in the water supply network. It consists of a TFX-5000 ultrasonic flowmeter and mobile transmitter that sends flow data to the BEACON web portal for online logging. LCPD is also available in a version with GSM router for connection to own operation control system.

The flow meter is powered by an integrated 600 Wh battery bank that provides an operating time of over 150 hours, making it possible to log flow for up to a week. All this mounted in a weatherproof case that allows flow measurement logging to be carried out outdoors for several days regardless of the weather. Measurement data is read in a browser, mobile app or via external operational control systems.



LEAKCELL
FOR EASY FLOW LOGGING

POWER FROM THE SUN

- Charging via solar cells
- Clamp-on flow sensors for easy installation
- Plug & play



Three pairs of ultrasonic Clamp-on flow sensors installed on water pipes

USEFUL FACTS ABOUT FIXED INSTALLED FLOW METERS

LEAKCELL is available in different versions depending on needs. What they all have in common is that they contain flow meters of the TFX-5000 Ultrasonic type for water mains connected with a mobile transmitter to the Beacon web portal. In cases where the power supply is missing, LEAKCELL is supplied with battery, charge controller and solar panel. Everything assembled Plug & Play to make it as easy as possible to install. In addition, it is available with a GSM router that sends measurement data directly into the user's own operation control system via Modbus TCP/IP.

The TFX-5000 measures the flow on pipe dimensions from DN12 to DN 1200 without having to shut down the process during installation. A good example of this is when in a water supply network you do not have to plan to shut off the water to water consumers, with the time pressure during installation that entails. In most places, parts of the pipeline network are 100 years old, which means that you do not know how much work it takes to cut a pipe due to a flow meter installation. This uncertainty is eliminated when using flow meters with external flow sensors. The sensors are mounted on the outside of the pipe, which means easy installation during full operation with low installation costs.

As an alternative measuring principle, LEAKCELL is also available in combination with electromagnetic flow meters which are traditionally used for flow measurement of water pipes.

BEACON web portal for online flow logging provides a perfect flow overview for all meters on a 15-minute, hourly, daily, weekly, monthly and yearly basis. It is easy to compare time periods and export data from the portal. Completely without the need for own installation of monitoring software, as everything is done via a standard browser and mobile app.





BEACON[®]

Advanced Metering Analytics

All LEAKCELL units, whether permanently installed or portable, are connected via the mobile network to the BEACON web portal/mobile app which stores flow data for several years. All so that the user can have as smooth day-to-day life as possible. The flow meter is read every 15 minutes and stored in an integrated mobile transmitter. Flow data is uploaded to the web portal automatically at regular intervals throughout the day.

With LEAKCELL plug & play solutions, expensive flow measurement installations are not necessary because all flow sensors are located outside of the pipes. In addition, LEAKCELL is delivered fully assembled in a cabinet, or in a portable bag, which means minimal installation time for the user. The mobile transmitter is activated, user login is created to the web portal and sent by e-mail, all in connection with delivery.

If flow data wants to read directly in your own operational control system, a GSM router is also offered that connects thru a fixed IP address. This solution is often wanted for customers that don't want a third party web portal to read flow data. With a direct connection you will be able to read live data. This router also has the option to connect other types of instruments to your operational control system via Modbus TCP/IP. It can be, for example, pressure sensors, level sensors and different types of water analysis sensors. Everything mounted in a cabinet for fixed installation powered by an existing power source or with a built-in battery bank charged via solar panels and windmill.

A major advantage of LEAKCELL is the flexibility that it can be adapted to different customer needs, regardless of whether it concerns power supply, data transmission, number of measuring points or measuring principle.



BEACON web portal for easy and flexible reading of flow history



GSM Router sends measurement data with Modbus TCP/IP protocol to operational control systems

Our application technicians are experts within measurement of water, sewage, liquids, biogas, compressed air, process gas, etc. Contact us for advice on your needs.



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