



APPLICATION NOTE Water & Wastewater

Flexible flow measurement, no process interruption

- Automatic leak monitoring of water consumption overnight
- Easy to install from outside without interrupting the process
- On-site data storage and reading

1. Background

A Swiss water supply company wanted simple flowmeters to monitor for leaks in the pipelines that lead to the end consumers. Some of these lines are very old cast iron pipes, which makes it extremely costly to install modern flowmeters. For this reason, the only flowmeters that were considered for these applications were the ones that could be installed from outside without interrupting the process.

2. Measurement requirements

Flow measurements must start automatically at 1 a.m. and stop at 6 a.m. Since consumption during this period is normally minimal, errors such as ones caused by leaks are easily detected. The total flow during the night is counted and this total is then saved. During the day, the counters can be read easily and then compared to the readings taken on previous nights.

3. KROHNE solution

For these applications, KROHNE supplied the OPTISONIC 6300 W ultrasonic measuring device and the micromec® data logger. The rails and sensors are installed on the pipelines from the outside. The sensors are easy to position on the tracks using the easy-to-operate converter installation program. The micromec® data loggers automatically control the measurements. In other words, the beginning and end of the measurements and the recording of the flow measurements. micromec® measures the current flow via the current output of the UFC 300 W converter and the volume for the specified time period via the pulse output. Because they are so easy to install, these measuring devices can easily be used to check other pipelines.



Clamp-on measuring device



Installed converter

4. Customer benefits

It is now very easy to monitor main lines to end consumers for leaks. The investment and follow-up costs for this measuring equipment are very low. The systems are maintenance-free and can easily be used for other pipelines.

5. Products used

OPTISONIC 6300 W

- Robust industrial clamp-on construction
- Simple installation and start-up thanks to Installation Wizard
- All in one system
- Diameter ranges:

small	DN 15...DN 100 / 1/2"...4"
medium	DN 50...DN 400 / 2" ...16"
large	DN 200...DN 4000 / 8"...160"



micromec® data logger

- Simple to operate and configure all data using 4 keys, can also be remotely controlled from the PC
- Large, clear 20 x 4 character LCD screen
- Indicator suited to quantity being measured thanks to scaling and calibration function, input of sensor name, dimensions and data points



Contact

Would you like further information about these or other applications?
Do you require technical advice for your application?
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