

Sensor technology for consistent water flavour

Flow and conductivity measurement ensures reliability in the mineral injection of drinking water



Our customer:
Manufacturer of ultrapure water systems

The Canadian-based company specialises in the manufacture of ultrapure water systems and has been leading in the area of reverse osmosis and EDI technology for over 15 years. It also manufactures systems for ultrafiltration and mineral injection, which are used in the beverage and pharmaceutical industries, for example.

To this day, our customer maintains many of its original installations from 1989. Proven design principles provide the longest service life in the industry and ensure system reliability at the highest level.

Customers are involved in the entire process of system development and receive systems that precisely meet their requirements.

The challenge:

Not all water tastes the same. The flavour depends on many minerals and their composition in the water. This is why manufacturers use mineral injection systems.



was previously only controlled via a simple flow measurement, which could lead to changes in flavour. In cooperation with ifm, our customer has now installed modern flow and conductivity sensors that enable a permanently reproducible result in the manufacturing process.

The solution – why ifm?

During the mineralisation process of the water, the exact supply and flow rate of the ingredients is of particular importance. This is monitored by the SU Puresonic ultrasonic flow meter, which regulates the correct dosage of minerals.

The substances themselves are stored in separate tanks to avoid mixing. The levels are monitored hydrostatically via PI pressure sensors. However, adding the minerals to the water is not the end of the story: after each supply, the LDL101 monitors the concentration of minerals in the water. The relevant measured values are reported to the user via IO-Link so that corrections can be made if necessary. The LDL101 then measures the concentration again. The quantity of the end product is finally confirmed by the SU Puresonic. With the help of ifm, the customer is able to ensure that the

exact recipe is always implemented and that consumers can always enjoy the same taste of their favourite water.



Results:

- Reliable and precise recording of measured values
- Digital data transmission via IO-Link without losses
- Reduced set-up time of around six hours per system
- Ensuring the quality and flavour of the mineral water



Reliable quality monitoring



Reduced set-up time



Consistent flavour



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