SU Puresonic

Obstacle-free flow measurement

Product presentation

Ultrasonic sensor SU Puresonic

The ideal partner for pure water.

The SU Puresonic is easy on the eye: Clean design, no unnecessary extras, complete focus on the essentials. The design concept is even continued inside the measurement pipe: Spotless, shiny stainless steel and no mechanical components, sealings, od obstacles, which could possibly contaminate the ultra pure water which regularly flows through.

Measurements are taken from the outside: Flow velocities of up to 1.000 litres per minute, and also the signal quality. They are transmitted acyclic using IO-Link and provide information about changes to the medium quality or residue build-up on the pipe. Simultaneously the status is shown on the operating status LED which corresponds to Namur-standard NE107. Can quality control and maintenance planning be made any easier?

Are you ready for the pure measurement experience?
Then click here for more information: **ifm.com/gb/puresonic**

Product benefits

The right choice for the right reasons

Quality

Non-contact measuring principle and stainless-steel pipe ensure long life-time and media compatibility.

Overview

The signal strength output indicates possible contamination or changes in the process.

Easy commissioning

Guided commissioning reduces the effort which is required to install the sensor.

Transparency

The operating status LED signals the sensor status to the user according to Namur NE107.

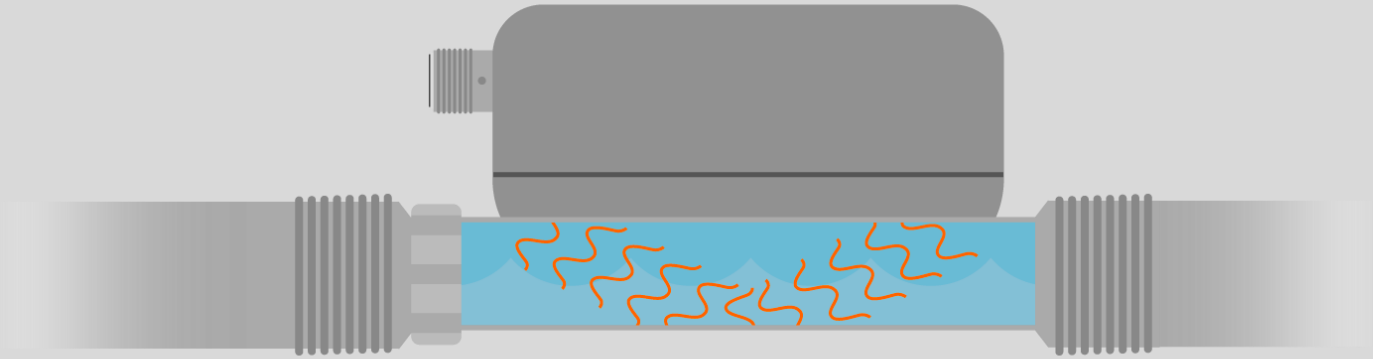
The design

The measuring pipe of the SU Puresonic is made of stainless steel. It is free of seals or other components as the measuring elements are located outside the pipe. This means that faults caused by damage, leaks or blockages are eliminated from the outset, as are design-related pressure drops.

The measuring pipe is available in the following dimensions:

- 1/2" (0,5...65 l/min)
- 3/4" (0,5...75 l/min)
- 1" (1...240 l/min)
- 1 1/4" (1...275 l/min)
- 2" (5...1000 l/min)

Variants with G and NPT threads available.



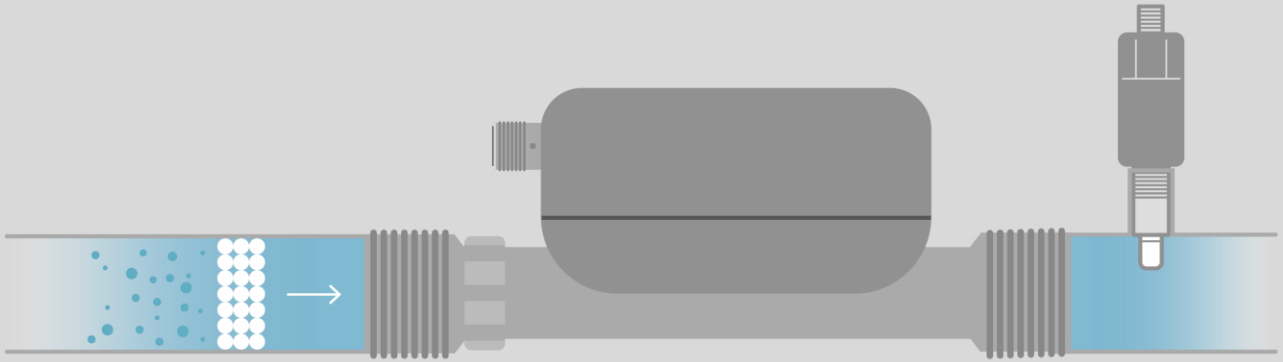
Application overview

Filtration

Reverse osmosis

Pure water usually contains a variety of ingredients, some of which are not desirable. In reverse osmosis the water is pressed through a membrane to filter out all undesirable ingredients.

The reverse osmosis system can produce almost pure water.



Using SU Puresonic

The SU Puresonic ultrasonic sensor can determine the flow rate of pure, non-conductive water passing through the membrane.

In combination with the LDL101 conductivity sensor, the quality of the membrane can also be monitored. Conductivity serves as an indicator of the condition of the membranes. If the conductivity increases, this shows that filter effect of the membrane is reducing.

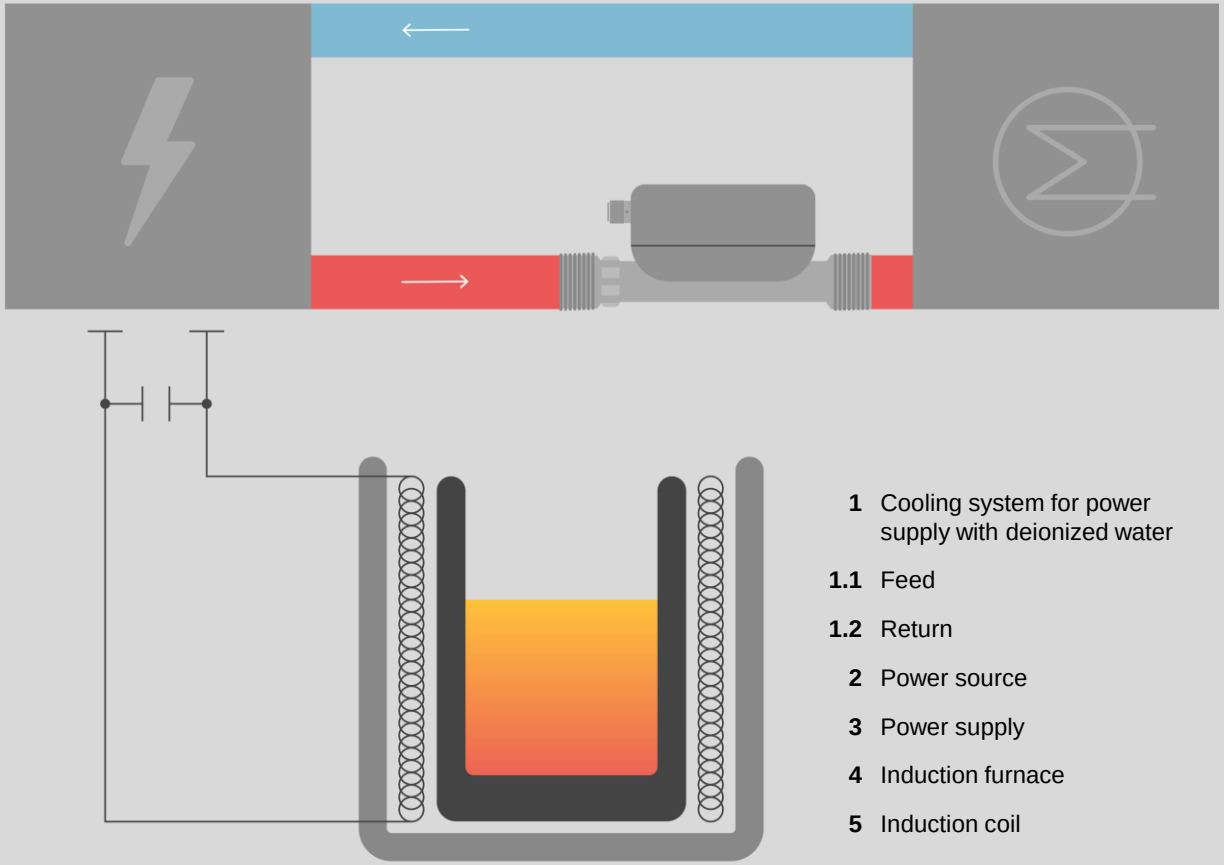
Application overview

Cooling systems

The graphic shows a power unit that supplies the coil of an induction furnace with energy. Power sources of this kind, which generate high electrical voltages, heat up strongly and therefore need to be cooled. Deionized water, which has a low conductivity, is used for this purpose. The advantage: Corrosion and calcification in the conduction system are avoided as well as short circuits on electrical components.

Using SU Puresonic

The SU Puresonic records the flow of non-conductive water precisely and reliably. Due to the design, which is free of measuring elements and moving parts, failures of the sensor can be reduced to a minimum.



1 Cooling system for power supply with deionized water
1.1 Feed
1.2 Return
2 Power source
3 Power supply
4 Induction furnace
5 Induction coil

Good to know

Added value thanks to IO-Link

Transparent processes

IO-Link cannot only provide the current flow velocity but also detailed information regarding the total quantity, temperature, unit status and 2 switching thresholds.

Condition monitoring

The signal strength is an indicator for possible impurities or process changes – Maintenance measures can be taken at an early stage and machine downtimes can be minimized.

Loss free data transmission

IO-Link also enables loss-free data transmission, as conversion losses due to digital communication are excluded and external influences such as e.g. magnetic fields have no influence on the signal quality.

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