INSPIRING ANSWERS

"Who's to say that there has to be sensor elements in the measuring tube of a flowmeter?"

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FLUID CONTROL SYSTEMS

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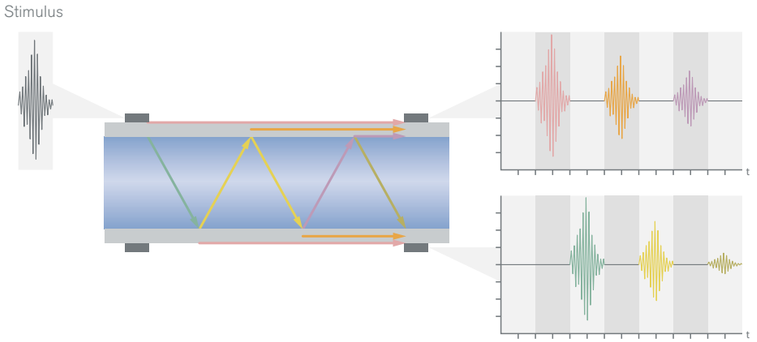
“Those who always ask the same questions shouldn’t be surprised when they get no new answers.”

Our corporate culture clearly sets the agenda. At Bürkert there is room for new ideas. Here we leave the beaten track and break new ground. At Bürkert, we challenge things, convinced that only such an approach leads to new and innovative answers.

In the future – under the motto “inspiring answers” – we will regularly show you products and technologies which break new ground.

The FLOWave principle

Surface acoustic waves (SAW) occur naturally, such as in seismic activities. We have used these effects in a patented technology for the in-line flow measurement of fluids. With this principle, there is no need for any sensor elements in the measurement tube that come into contact with the medium, and thus there are clear benefits over the entire product life cycle.



SAW technology

Interdigital converters are stimulated by an electrical signal and generate surface acoustic waves. These propagate across the tube surface and also decouple into the fluid at a specific angle. In this way, the waves generate receive signals when passing through the fluid once and multiple times. Both are carried out in and against the flow direction. The time differences are proportional to the flow.

powered by
EDIP

EDIP – Efficient Device Integration Platform – is the electronic platform of the new Bürkert product generation with a common user interface and digital communication, which not only makes it significantly easier for product users to use the devices, but also simplifies integration into a system.

Benefits for you

- FLOWave does not have any parts in the measuring tube and thus has
  - no pressure drop
  - no leakage problems
  - no dead spaces
  - no replacement parts
  - greater independence from the medium
- Measurement is independent of flow direction and does not require conductivity of the medium
- The technology can be used as a multi-parameter measuring device
- Low weight, small dimensions and minimal energy requirements reduce the installation effort and enable compact systems and cost savings

FLOWave in use

The fact that FLOWave devices do not need any sensor elements in the measuring tube makes them very suitable for applications where the highest standards of hygiene and cleanability of systems are required. Here, they often present a more efficient alternative to conventional systems. These were previously only used due to their specifications, but in most cases were vastly oversized in relation to performance.

Successful in the field

To this point, FLOWave is particularly suited to applications in hygiene and to measuring the flow of water with low conductivity. For some time now, the devices have shown the possibilities afforded by the new SAW technology through extensive field tests. Under the real conditions prevailing there, our positive laboratory results have been more than confirmed.

Step by step

With additional development and expansion steps, the new technology is then expanded to all other relevant applications. In parallel, application-supporting functions are added to FLOWave and then it is also made available as a multi-parameter device.

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