

WE CONTINUE TO LEARN FROM YOU ON A DAILY BASIS  
 – AND THINK OUTSIDE THE BOX.

When it comes to dealing with liquids and gases, Bürkert has become a sought-after partner all over the world. Why? Probably because we have been learning for and from our customers for more than 70 years now. This enables us to always think that crucial step ahead... and around the bend.

**We make ideas flow.**

For your added value. Let us prove it to you –  
 we look forward to your challenge.

**Bürkert Fluid Control Systems**  
 Christian-Bürkert-Straße 13-17  
 74653 Ingelfingen  
 Germany

Tel.: +49 (0) 7940/10-0  
 Fax: +49 (0) 7940/10-91 204

info@burkert.com  
 www.burkert.com

BEST PRACTICE

Innovative flowmeter  
 for more productivity



## Innovative flow measurement

### SIMPLE, CLEAN AND SAFE

Product safety is a crucial factor in the manufacture of infusion solutions. This is a matter of very special importance to one of the leading manufacturers of infusions, clinical nutrition, drugs and medical products based in Hesse, Germany. To achieve maximum product safety, it is necessary to use only state-of-the-art flow measurement systems. That is why a new Bürkert technology was installed in a field test in the supply line of a filling system for infusion bags.

### INNOVATIVE FLOW MEASUREMENT: FLOWAVE

The crucial factors for flow measurement systems are long-term operation with no failures and, above all, with no errors in measurement – even under the harshest conditions. The exact measurement of the flow rate of CIP media is also decisive. In the past, however, it was often necessary to use expensive processes with less than optimal hygienic properties in order to meet the high requirements for measuring accuracy. The new FLOWave flowmeter changes that.

### Did you know?

**New technology:** For the flow rate measurement our fluidics experts developed a technology on the basis of **Surface Acoustic Waves (SAW)**. The technology measures the propagation of surface waves on the measuring tube and in the flowing medium. The effect is comparable to the wave propagation in seismic activities.



## Focus on the Bürkert solution

### TECHNOLOGY FOR A SUPERIOR FLOW MEASUREMENT PROCESS

The flowmeter features a very simple design without internal sensor elements in the measuring tube, and in terms of fluid technology is simply a tube. FLOWave does not affect the process or the flowing product in any way and can be regarded as any other tube. With a diameter of 50 mm the FLOWave weighs only about four kilograms and can easily be installed or replaced by a single person.

That not only offers a cost-effective alternative to previous measuring systems. It also results in lower cleaning and sterilisation costs, for example. At the present time it is already possible to simultaneously measure volumetric flow rate and temperature. In the future, additional parameters such as density and mass flow rate will be added, and there will be validation for all fluids.

“FLOWave is not just a flowmeter, but a revolutionary instrument for quality assurance.” – Responsible project engineer on the customer side.

### FLOWAVE IN PRACTICE

In a practical test the customer was quickly convinced of the unlimited suitability and the advantages of FLOWave. The reliable and reproducible monitoring of CIP and SIP processes made it possible to identify potentials for optimisation within a very short period. Not only the efficiency of cleaning and sterilisation, but also

the overall system efficiency were boosted as a result of the exact measurement of the flow rate and temperature, as well as the simple design. The FLOWave flowmeter is therefore not only a measuring system, but also a tool for quality assurance and optimisation. Its use even allowed the user to gain additional filling time.

“I never would have thought that we could actually gain additional filling time.” – Responsible project engineer on the customer side.

### EVEN MORE ADVANTAGEOUS: THE COMBINATION OF FLOWAVE AND MULTIPLE VALVE INTERFACES

Bürkert also offers a complete system solution for flow measurement. A new filling system for infusion solutions incorporates three FLOWave flowmeters and Robolux valve interfaces. The latter need less space than conventional valve interfaces and they have a smaller internal volume. Another advantage of these multiple valve interfaces is that they have no dead zones. The result is a substantial reduction of flushing times for each valve interface every day.



### What Bürkert offers for your flow measurement:



**Increased productivity:** Due to optimised cleaning, sterilisation and filling times



**Hygienic safety:** No sensor elements or constrictions in the measuring tube



**Continuous monitoring:** For reliable and reproducible monitoring of CIP and SIP processes



**Maximum reliability:** Insensitive to vibrations and magnetic or electrical interference



**Minimal cleaning:** Less susceptible to contamination and easier to clean



**Easy validation:** Due to digital monitoring and simple design (tube)



**Plug & Play:** No separate calibration necessary after installation



**Extended production times:** Through combination of FLOWave and Robolux