

## **Media-separated pressure-relief valve protects components and optimises control**

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**Flow control specialist Bürkert has released a new pressure-relief valve that protects sensitive components in fluidic systems against high pressure peaks, and also provides media separation for use with aggressive or sensitive liquids. Designed for analysis, biotech, and laboratory applications, Bürkert's new Type 5550 valve enables full liquid isolation, keeping fluids free from contamination and preventing loss of expensive substances. The valve can also be deployed to maintain back pressure and achieve precise pressure control.**

In laboratory and analysis systems, the Type 5550 valve protects sensors and microchannels against high pressure spikes. Integrated on a parallel circuit to pressure-sensitive components, the Type 5550 valve prevents pressure peaks and surges with automatic opening to relieve the system.

### **Reliable system protection**

The Type 5550 valve can also be integrated in series on a circulation system to stabilise system pressure and ensure consistent flow rates with reproducible results for dispensing and sample handling modules. The valve can generate and maintain constant system back pressure, ideal for dosing applications, while returning excess

fluid with control. This optimises pressure stability within the circuit for consistent dispensing, with bubble-free delivery and reproducible results.

Bürkert's new valve can also achieve precise pressure control to ensure reproducible process conditions. By matching system pressure to the required process level, the Type 5550 maintains a constant working pressure for measurement, analysis, or dispensing applications. Creating a controlled pressure range suitable for volumetric pumps, such as diaphragm and gear pumps, the Type 5550 valve can be installed in a parallel circuit, applying pressure compensation upstream of the process chain, balancing the level regardless of delivery rate or medium.

The valve also achieves complete liquid separation, and the diaphragm prevents contamination to maintain maximum purity, even with sensitive or reactive substances. The Type 5550 valve also prevents the loss of expensive media as fluid released during overpressure control is returned to the system.

### **Flexible and durable**

The Type 5550 is available in various materials, enabling integration into a range of applications with potential exposure to a variety of aggressive or sensitive liquids, with USP- and FDA-compliant variables available. Seals and diaphragms are offered in EPDM, FFKM, and FKM on request, while housings are available in PPS and PEEK, and the valve features a stainless-steel spindle. The broad media compatibility options enable the Type 5550 valve to be designed into applications ranging from analysis platforms to bioreactors.

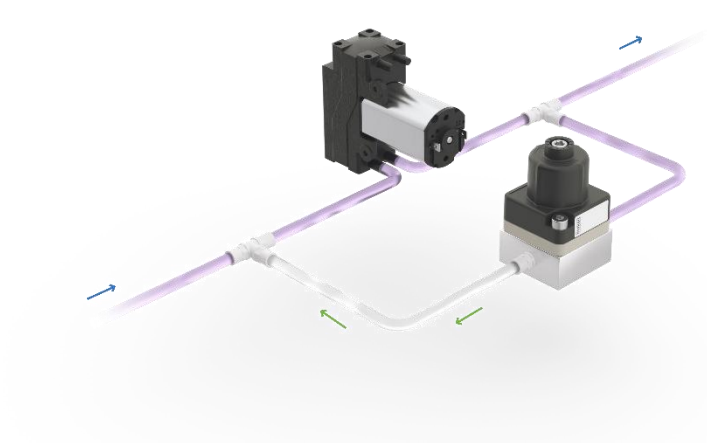
Integration takes place directly in the fluidic setup without requiring additional tubing or an external controller, while the compact footprint and flange interface allows straightforward installation in plant or in a distribution system. The valve is also available in surface mount configuration for ease of integration into microfluidic

assemblies. Once installed, the valve provides maintenance-free operation, and its highly durable design ensures long-term reliability.

[Find out more about the Bürkert Type 5550 here.](#)

**Image captions:**

**Image 1:** Bürkert's new Type 5550 valve maintains a constant working pressure for measurement, analysis, or dispensing applications.



**Image 2:** The Type 5550's compact footprint and flange interface allows straightforward installation in a distribution system.

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## About Bürkert

Bürkert Fluid Control Systems is one of the leading manufacturers of control and measuring systems for fluids and gases. The products have a wide variety of applications and are used within food & beverage, pharmaceutical and water industries as well as in medical engineering and space technology. The company employs over 3,700 people and has a comprehensive network of branches in 36 countries world-wide.”

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