

New pinch valve provides secure connection for biopharma applications

29 April 2025

Flow control specialist Bürkert has released a new pinch valve for use in single-use biopharma applications. The new Type 2707 Pinch Valve ensures process safety and reliability with a stainless steel locking and pinch mechanism that optimises flow while protecting the tube insertion. The versatile valve, available in modulating control and on/off versions, is compatible with a range of tube diameters, and is fast and simple to fit.

[Bürkert's new Type 2707 Pinch Valve](#) is externally controlled and includes a choice of pneumatic actuator and an interchangeable tube holder. With the Element actuator for modulating control, the valve is suitable for applications such as flow control for tangential flow filtration, as well as pressure control for chromatography. The valve is also intended for purposes including single-use bioreactors as well as filling and dosing skids.

Precision with simple integration

To optimise control modulation with the Element actuator version, analogue and digital positioners options are available, along with integrated pneumatic control and a position indicator LED. The actuator includes an autotune function to speed up commissioning, and enables digital connectivity via CANopen, Asi, and IO-Link, with diagnostic functions also featured.

Alternatively, the Classic actuator version of the Type 2707 Pinch Valve provides on/off control, and with compact dimensions, this design is suited for space-constrained applications. Position feedback is also achievable for the Classic actuator version as an option.

Across both variants of the Type 2707 valve, the stainless steel construction of the locking and pinch mechanism achieves long-lasting durability and ensures reliable process control. The hygienic, corrosion-free design is also compatible with all cleaning and disinfection liquids used in the biopharma industry, and features high chemical resistance for long-lasting performance.

Optimising flow

The efficiency of the pinch mechanism enables easy integration for tubes or single-use assemblies, with no need to bend or stretch installed tubes thanks to tube insertion at the bottom of the valve which enables easy access. Placing low mechanical load on the tube, minimising the risk of tube damage while optimising flow, the design features a sphere-shaped compressor and tube holder which partially encloses the tube. This mechanism applies only a minimal pinching action to secure the tube while ensuring an effective seal.

The valve also enables the versatile integration of various tube sizes, thanks to a tube holder that can be adapted to suit different tube diameters. This assembly can be quickly replaced in a few simple steps. The Type 2707 Pinch Valve can accommodate a wide range of tube sizes - 1/8" id (1/4" od) to 1" id (1 1/2" od).

Achieving through wall/panel installation, suitable for cabinet and machine integration, the Type 2707 valve can also be mounted on racks, such as transfer/distribution racking. The valve is fast and simple to install, and tubes are securely attached with a simple, one-hand operation of the locking mechanism.

Image captions:



Image 1: Operating with a CLASSIC actuator gives cost-effective on/off operation.



Image 2: Specifying the ELEMENT actuator provides modulated control.



Image 3: Bürkert also offers decentralised control options for all common communication protocols.

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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 by breweries and laboratories as well as in medical engineering and space technology. The company employs over 2,200 people and has a comprehensive network of branches in 35 countries world-wide.

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