

BIBUS



**Fluid technology for
life science applications**

lifescience.bibus.com



The partner for your success

BIBUS AG is a family-run trading, service, and manufacturing company with a 75-year history. Combining our own expertise with our global network of suppliers, we support our customers with customized solutions, from individual products to end-to-end production of complete systems.

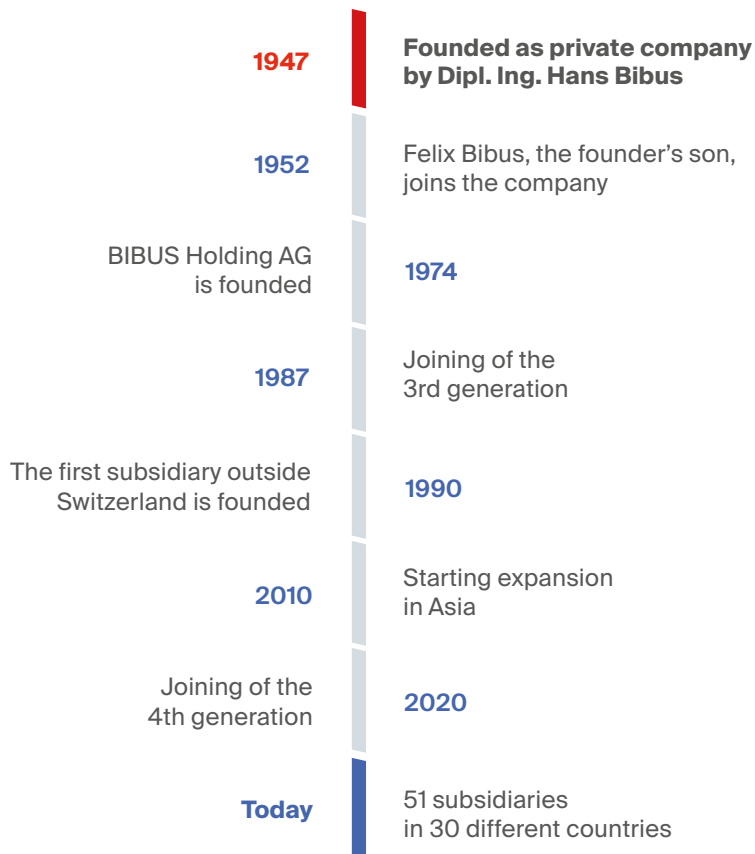
We understand our customers' requirements and identify the critical tasks in their applications. This enables us to develop precisely coordinated configurations of components and systems that ensure safe and economical operation.

The development of high-performance fluid control systems is one of our areas of expertise. We deliver mature, industrialized, and production-ready solutions that meet strict technical and regulatory requirements.

Supporting your success:

We measure our performance by your success.

Strong foundation



supporting your success



Solutions for your applications

Are you looking for a partner to develop fluid control systems that meet your demanding requirements? Thanks to our experience, we understand our customers' needs and recognise the critical tasks in your applications. We develop, manufacture, test and document customised solutions with added value – from the initial idea to validation. Even after commissioning, we continue to put our expertise at the service of your success.



Engineering & industrialisation

Whether for standard products or customised complete solutions, BIBUS projects start with in-depth consultation. On this basis, we develop tailor-made configurations of components and systems with well-thought-out simplicity. Our industry-proven employees draw on solid technical knowledge. This results in high-performance, production-ready fluid control systems that meet strict technical and regulatory requirements.



Supply chain & production

Your time-to-market goal is the guiding principle for our joint project. Regulatory and quality assurance aspects are already incorporated into the solution design and help determine the development process. This enables us to quickly present tested functional models, prototypes and pre-production series. At the same time, our long-standing partnership with leading manufacturers enables the timely procurement of components for the fluid control system and lean production.



Product life cycle & management

Our collaboration is not limited to the development and delivery of solutions tailored to your needs. We also support you during ongoing operations with ongoing commercial agreements, service and logistics services. You benefit from our extensive warehouse, high component availability and short delivery times. Our product management thus forms the foundation for a successful product life cycle.

Applications

BIBUS offers a wide range of components and customized solutions for the control of liquid and gaseous media in the Life Science sector, ensuring the highest efficiency and reliability.

The Life Science field encompasses various disciplines, including biology, molecular biology, biophysics, medicine, biomedicine, pharmacy, biochemistry, chemistry, agricultural technology, and food research.

The application of liquid and gas control can be found in medical devices such as ventilators and anaesthesia machines, dialysis ma-

chines, press therapy and vacuum therapy devices, shockwave therapy systems, infusion dosing devices, dental units, autoclaves, oxygen concentrators and much more.

Furthermore, these technologies are utilized in hematology and analytical devices, for example in biotechnology (mass spectrometry), gas and liquid chromatography, biomedical analyses, environmental analyses, molecular analyses, genomics, clinical chemistry, and electrophoresis.



Medium control in syringe pump



Fluid handling in laboratory application



Control the supply of dialysis fluid from the container to the patient.



Micro fluid handling in space laboratory for cell examination.



Filtering, mixing, control of pressure and flow, referencing of carbon dioxide and oxygen sensors.



Management of liquid, air and vacuum, for supply the dental handpiece instruments.

System solutions

High pressure gas control system

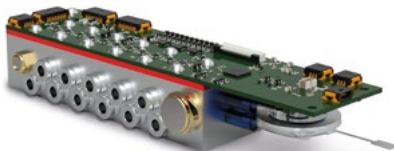
High-precision pressure and flow measurement technology, coupled with proportional and valve technology, control the gaseous medium precisely to the set pressure and flow.



APPLICATION: Medical technology

Miniaturised valve block

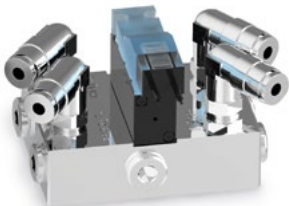
Compact, low-noise and energy-efficient valve, pump and measuring technology, combined in the smallest installation space.



APPLICATION: Medical technology

Micro valve block

Micro valve with 10 mm size for high pneumatic pressures and highest tightness.



APPLICATION: Analytical technology

Dosing unit

Compact pump block for pumping and dosing of aggressive, liquid media.



APPLICATION: Analytical technology

Valve technology

Media-flushed valves

Media-flushed micro and miniature valves for compact, energy-efficient, and smart fluid control systems. Despite their small dimensions, these valves surprise with their high performance in terms of flow rate, operating pressure and service life.



Cartridge - valve



Mini - valve



Mini - valve



Mini - valve

Media-separated valves

Media-separated valves are used in vacuum technology, diagnostics, medical technology, and laboratory automation. The diverse media separation principles lead to a broad performance spectrum, with a focus on maximum reliability.



Diaphragm - valve



Metal diaphragm - valve



Rocker - valve



Pinch - valve

Microvalve technology

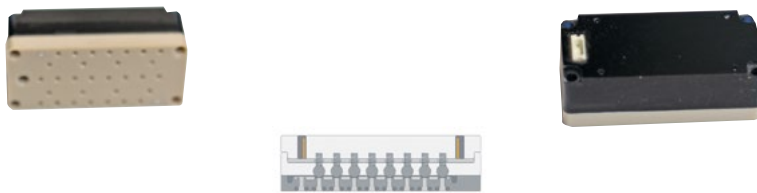
Microvalves

The advantages of microfluidics are unmistakable: high precision, low power consumption, laminar flows, minimal dead volume and much more. Microfluidic systems are used primarily where the smallest quantities of liquid are controlled. The micro valves impress with their small size, which is made possible by the innovative shape memory actuators.



Microvalve block

The 8-channel multi-valve block is ideal for dispensing or mixing liquid samples. It has minimal internal volume, making it indispensable in applications such as DNA synthesis.



Microactuators

Shape memory actuators

Wherever movement is required in a confined space, microactuators made of shape memory alloys offer innovative solutions. They generate considerable forces while being extremely compact. These actuators are used in small and intelligent point-of-care devices, medical devices, laboratory and organ-on-a-chip solutions or research setups.



Electronic control unit

The valves and chip actuators are operated by an actuator made of shape memory alloys, which must be current-controlled. We therefore offer user-friendly electronic control units, that deliver a constant current of maximum 500 mA. These control units are ideal for initial tests or laboratory set-ups.



Proportional technology and sensors

Proportional valves

Pressure and flow regulation as well as control of gaseous and liquid media. From low to high pressure and flow, these devices can reliably control and regulate the medium.



Proportional valve



Cartridge
proportional valve



Open Frame
controller



Flow controller

Sensors

Pressure and flow measurement of gaseous and liquid media. From lowest to highest pressure and flow, these sensors measure the medium precisely and continuously.



Flow sensor for
gases



Flow sensor
for liquids



Pressure sensor and
pressure switch

Filtration and connection technology

Filters

Efficient filters against bacteria, particles, moisture, and aerosols ensure the required purity of the medium. Filtration is reliable, efficient, with the lowest pressure drop and, if desired, monitored.



Antibacterial filter



Inline-filter

Fittings

Oxygen fittings or clean fittings, made of stainless steel, brass or biocompatible high-performance plastic, with or without seals, as standard or bespoke design. With this variety, any medium can be connected.



Oxygen fitting



Elbow fittings with
PTFE seal



Microfitting

Start your project with us

BIBUS supplies proven and innovative fluid control systems tailored to your processes. You benefit from short time-to-market, reduced system complexity, and lower costs.

We look forward to hearing from you!



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