OVERVIEW

CAMOZZI
Automation

PRECISION AND SAFETY AT EVERY STAGE OF THE PROCESS

Integrated solutions and components for biotechnology applications

PRECISION, SAFETY, INNOVATION.

The biotechnology sector requires highly precise, safe and reliable solutions, essential for applications ranging from research to advanced diagnostics. **In these situations, accurate fluid control and compliance with safety standards are crucial to ensure quality results and to protect health.**

We develop components and integrated systems for fluid management, designed to deliver **precision, energy efficiency and compact dimensions**, in line with the needs of the most advanced biotech applications.

We support our customers in developing solutions that combine **high performance and compliance with industry standards** to address the challenges of this demanding sector.

Class	Maximum number of particles/m³			FED STD 209E
	≥ 0.5 µm	≥ 1 µm	≥ 5 µm	
ISO 7	**352,000**	**83,200**	**2,930**	**Class 10,000**

To ensure the **highest quality**, we manufacture our products in **controlled contamination environments and in ISO 7-certified cleanrooms**, using ultrasonic cleaning and UV inspection technologies.

This allows us to **provide components** suitable for **aggressive fluids or oxidizing gases** such as oxygen.

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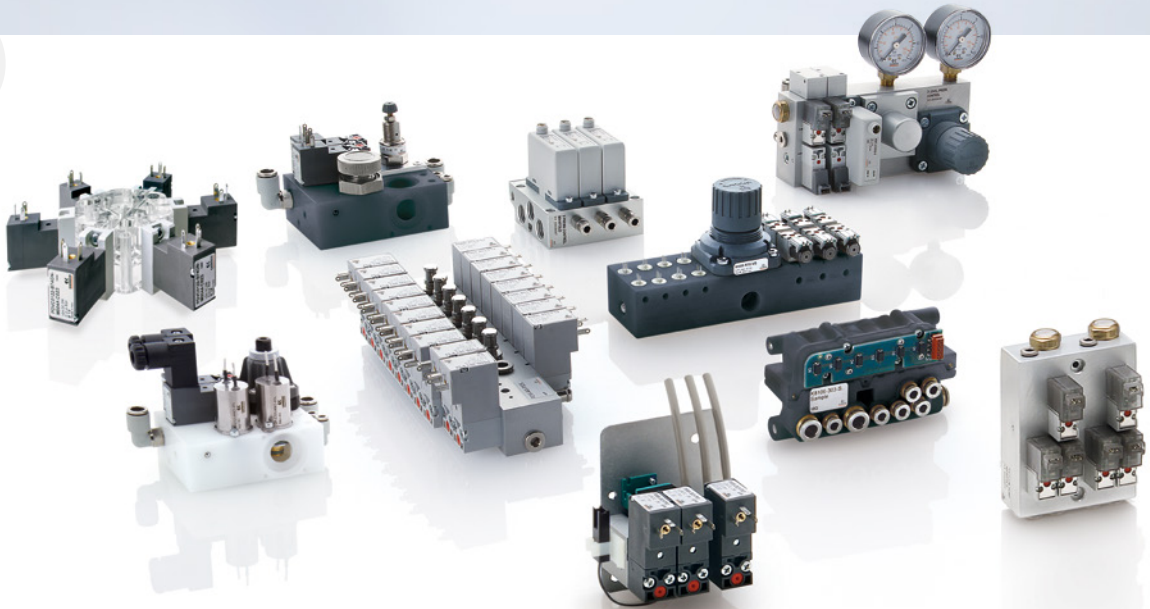
OUR PRODUCT RANGE

Standard components

- Proportional flow valves
- Pressure regulators
- Media separated solenoid valves
- Miniature solenoid valves



Integrated solutions and systems

- Gas mixing solutions
- Multifunctional Manifold
- Devices for dispensing and controlling gases and liquids

OUR APPLICATIONS

Biotechnology leverages biological systems to develop **innovative solutions in the healthcare and environmental fields**. Microvalves and advanced control technologies play a key role in enabling the precise management of small fluid volumes – essential in areas such as diagnostics and drug development. At Camozzi Automation, we apply our **expertise in microfluidics and valve technology** to deliver solutions that combine reliability, precision and performance for biotech applications.

- *Mass Spectrometry*
- *Gas and Liquid Chromatography*
- *Biomedical Analysis*
- *Environmental Analysis*
- *Molecular Analysis*
- *Genomics*
- *Microbiology equipment*
- *DNA/RNA synthesis*
- *Haematology*
- *Clinical chemistry*
- *Clinical diagnostics*
- *Electrophoresis*
- *In vitro diagnostics*
- *Molecular diagnostics*
- *Immunology*

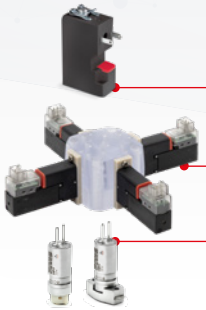
Clinical Chemistry

Clinical Chemistry analyzes body fluids to help diagnose and monitor medical conditions. We provide microvalves that enable precise fluid control in diagnostic devices, enhancing test accuracy and efficiency.

PROPORTIONAL PRESSURE REGULATOR	**Series PME** Adjustable pressure: 1 to 10.3 bar Available in two sizes: PME1 and PME2
MEDIA SEPARATED SOLENOID VALVE WITH 10 MM 3/2	**Series KDV** Nominal diameter: 0.8 to 1.3 mm PEEK body and FKM - EPDM - FFKM seals
MEDIA SEPARATED SOLENOID VALVE WITH 8 MM 2/2	**Series K8DV** Nominal diameter: 0.7 mm PEEK body and FKM - EPDM - FFKM seals

Haematology

For haematology instruments, we supply media separated solenoid valves that protect the controlled fluid from contamination or excessive temperature fluctuation.



MEDIA SEPARATED SOLENOID VALVE WITH 15 MM 3/2	**Series LDV** Nominal diameter: 0.8 to 2 mm
MULTICHANNEL MANIFOLD	**Manifold** with media separated solenoid valves Series KDV 3/2
MEDIA SEPARATED SOLENOID VALVE WITH 8 MM 2/2	**Series K8DV** Nominal diameter: 0.7 mm PEEK body and FKM - EPDM - FFKM seals

Sample Preparation

The preparation of biological samples includes operations such as dilution, mixing and filtration, which are essential for obtaining accurate analytical results. We support autosampler technology with microvalves that enable precise and automated fluid handling, improving process consistency and reliability.

MEDIA SEPARATED SOLENOID VALVE WITH 10 MM 3/2	**Series KDV** Nominal diameter: 0.8 to 1.3 mm PEEK body and FKM - EPDM - FFKM seals
DIRECT ACTING PROPORTIONAL VALVES	**Series AP** Nominal diameter: 0.8 to 1.6 mm Available in flanged or threaded versions
INTEGRATED SOLUTION	**Manifold** with media separated solenoid valves Series KDV or LDV for liquid mixing

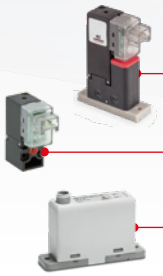
Lab on Chip / IVD

Lab-on-Chip and IVD (In Vitro Diagnostics) devices miniaturise and automate laboratory processes to rapidly analyse small biological samples.
Our microvalves ensure precise control of microfluidic flows within these systems, contributing to fast, efficient and reliable diagnostic results.

MEDIA SEPARATED SOLENOID VALVE WITH 10 MM 3/2	**Series KDV** Nominal diameter: 0.8 to1.6 mm PEEK body and FKM - EPDM - FFKM seals
MEDIA SEPARATED SOLENOID VALVE WITH 15 MM 3/2	**Series LDV** Nominal diameter: 0.8 to 2 mm
INTEGRATED SOLUTION	**Manifold** with Series K8DV and Series KL solenoid valves for liquid mixing

PCR-based Molecular Diagnostics

Automated PCR-based molecular diagnostic devices detect specific genetic material with high sensitivity and accuracy.
Our microvalves precisely manage the movement and mixing of reagents and samples, ensuring reliable thermal cycling and fluid control essential for accurate PCR results.



MEDIA SEPARATED SOLENOID VALVE WITH 10 MM 3/2	**Series KDV** Nominal diameter from 0.8/1.3 mm PEEK body and FKM - EPDM - FFKM seals
DIRECT ACTING SOLENOID VALVE 10 MM 3/2	**Series KL** Function: 2/2 NO – 3/2 NC – 3/2 NO – 3/2 Universal Nominal diameter: 0.8 to 1.6 mm
MICRO REGULATOR ELECTRONIC PROPORTIONAL	**Series K8P** Operating pressures: 1 / 3.7 / 10 bar Hysteresis: ±0.5% FS

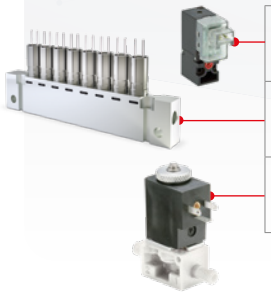
Chromatography

Gas and liquid chromatography systems are used to separate, identify and quantify chemical compounds in complex mixtures.
We provide microvalves that enable precise and automated control of flow paths, enhancing accuracy, repeatability and overall analysis efficiency.

MULTICHANNEL MANIFOLD	**Manifold** with media separated solenoid valves Series LDV 3/2
MEDIA SEPARATED SOLENOID VALVE 2/2	**Serie PDV** Nominal diameter: 0.8 to 2 mm PEEK body and FKM - EPDM - FFKM seals
DIRECTLY ACTING AND PRESSURE COMPENSATED PROPORTIONAL SOLENOID VALVES	**Series CP** Nominal diameter: 1 to 4.4. mm Stainless steel body, cartridge mounting

Analyser (Gas & Environmental)

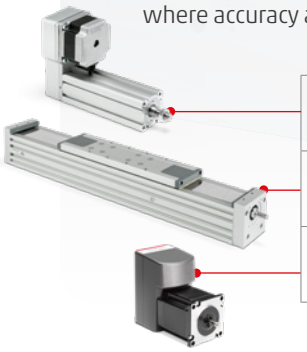
Analysers measure the chemical composition, concentration and physical properties of gases, liquids and materials for research and quality control purposes. Our microvalves ensure accurate and automated fluid management, improving measurement precision, repeatability and system reliability.



DIRECT ACTING SOLENOID VALVE 10 MM 3/2	**Series KL** Function: 2/2 NO – 3/2 NC – 3/2 NO – 3/2 Universal Nominal diameter: 0.8 to 1.6 mm
INTEGRATED SOLUTION	**Manifold** with media separated solenoid valves Series K8DV 2/2 for gases and liquids
DIRECT ACTING PROPORTIONAL VALVES	**Series AP** Nominal diameter: 0.8 to 2 mm Available in flanged version

Lab Automation

Lab automation requires precision, compactness and reliability for repetitive and controlled movements. We provide compact and versatile electromechanical solutions - cylinders, axes and actuators - for linear automation in laboratory systems, where accuracy and cleanliness are essential.



COMPACT ELECTROMECHANICAL CYLINDER	**Series 3E** With ball screw drive Sizes: 20 and 32
ELECTROMECHANICAL AXIS	**Series 5E** Ball guide with belt or screw drive Sizes: 50 – 65 – 80
INTEGRATED FIELD-ORIENTED CONTROL DRIVE	**Series DRVI** Motor with integrated drive. Available in three versions: two stepper motors and one BLDC, in NEMA 23 and 24 sizes

CAMOZZI
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