

gevasol Xpress

March | 2025

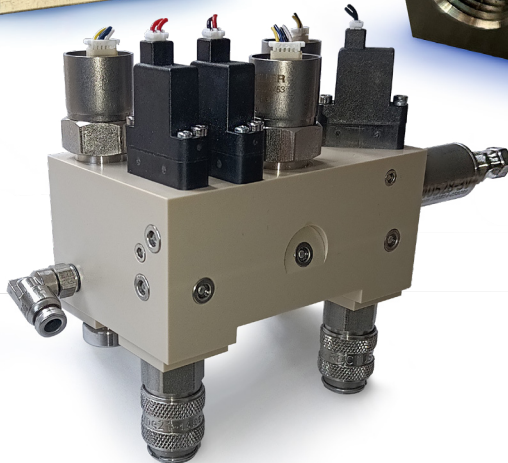
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Featured Product

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Beyond Standard



Beyond Standard Projects

Gevasol is dedicated to creating products that match customer needs across various sectors

High-Tech Industries require **competence, ingenuity, flexibility**, and entrepreneurial risk-taking. We partner with those who relish challenges and are willing to join us on the development journey. Drawing upon **experience across diverse applications**, we collaborate with our customers to deeply understand the unique requirements of each new application. We dedicate our extensive expertise, resources, and innovative minds to every project.

- We offer our expertise to various sectors, including medical devices, instrumentation, agriculture, transportation, and the food & dairy industry.
- Working together can unlock new opportunities and drive innovation in these areas.
- We provide support beyond the control element, helping with integration, interface, and electronic control.
- Share with us **your dreams** and let them **become real** with our help.

Example: Our customer approached us for very accurate pressure and flow control in microchannels. Based on our competence in miniature precision proportional valves, we blended the well-known with experimentation, adapting our technology to the unique requirements of the application.

In collaboration with customers we also addressed special issues that arose, like when certain gases changed behaviour under high pressure. As a result, the compact valve design, excels in precision and repeatability.

Instrumentation Valves

High Pressure Valves

P7129

- Function: 2/2NC or NO
- Orifice: 1.2 to 1.6
- Pressure: up to 160 bar

Applications:

Pilot pressure, shut-off valve, hydrogen tanks, mist generator, sampling

High Flow Proportional Valve for Gases

P447

- Flow: kv up to 4.5 l/min
- Pressure: 0 to 7 bar

Applications:

Flow or pressure control

Proportional valves

P377

- Orifice size: 0.05 to 2 mm
- Pressure: up to 70 bars

Applications:

Fluid and gas flow or pressure control

Normally Open Proportional Valve Manifold

P261

- Function: NO
- Pressure: Up to 12 bars (w/ small orifices)
- Flow: up to 300 l/min (@ -1 to 1 bar)
- Cost effective and efficient

Applications:

Pressure regulators, flow controllers

Media-separated Solenoid Valve

P107

- Function: 2/2NC
- Orifice: up to 4 mm
- Flow: kv up to 6.5 l/min
- Pressure: up to bar
- Vacuum: up to 8 bars

Applications:

Ammonia, H₂, neutral and aggressive gases and liquid handling

P370

for Aggressive Liquids and Gases

- Function: 2/2NC
- Orifice: up to 8 mm
- Flow: up to 20 l/min
- Vacuum and low pressure
- 10 M cycles

Applications:

- Fuel cell
 - Air and H₂ control
 - UHP water control



Precision Miniature Proportional Valves for Gases up to 70 Bars

Gevasol has an extended range of precision proportional valves up to 70 bars

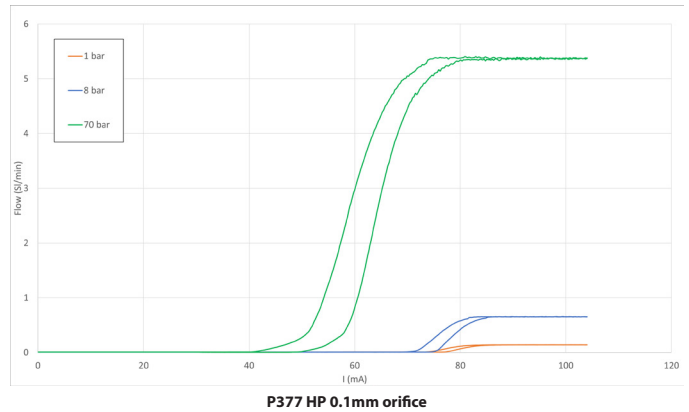
- Sturdy construction and high-tech material allowed us to raise the pressure limit from 12 to 70 bars.
- Tiny flows limited by orifices of 0.1 to 0.5 mm allow gas injection up to 70 bars with an excellent controllable flow.
- A meager leakage rate of below 1 ml/min.

Advantages

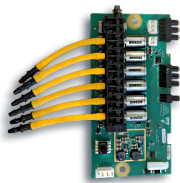
- Operate over a wide pressure range
- High resolution with a stable, repeatable flow curve
- Small form factor
- Easy mounting in manifolds
- Low power consumption
- Low leakage
- Small dead volume

Applications

- Spectroscopy
- Chromatography
- Flow regulation
 - Back pressure
 - Down stream pressure



Fluid Control Manifolds



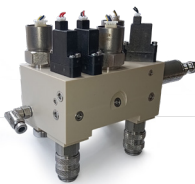
Miniature PCB Mount Valve for Gases

P357

- Function: 2/2 NC
- Orifice: up to 2 mm

Applications:

Dosing, sampling, shut-off



Accurate Dosing Valve for Medical Applications

- Includes sensors and mechanical pressure reducer
- Compact and reduced weight
- Increased reliability, minimal piping
- Media compatibility: oxygen, engineered plastic

Applications:

Ventilators, Anesthesia, CPAP



P402

- CAN Bus: 200 independent valves
- PWM: 10% - 90% at 20 Hz
- Dosing resolution: 0.1 ms
- Minimum dose: 5 ms
- Lifetime: > 100 M
- Diagnostics: blocked valve

Applications:

Spraying: On/Off, PWM, Field / spot / orchard



* Flow Regulator

CFR - P377

- Function: Downstream pressure or flow regulator
- Orifice: 0.1 to 1.2 mm
- Pressure: Vacuum to 10 bars

Applications:

Dosing, fuel-cell pressure regulation



Vacuum Proportional Regulator

P289

- Function: enables accurate pressure and/or flow regulation of gases
- Controlled fluids: dry air / inert gas
- Control range: 0 to 350 mmHG
- Max. flow rate: 20 l/min.

Applications:

Lab equipment, Medical device



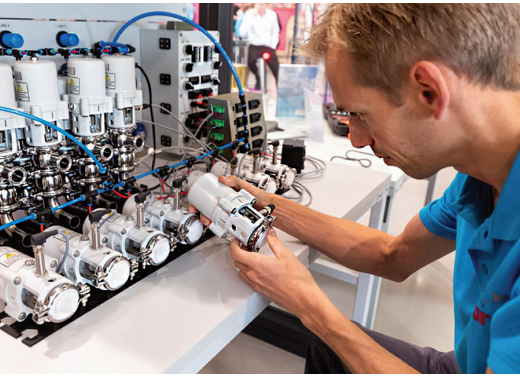
P481

- Energy saving option available

Applications:

Spot Spraying, PWM

Reliability Lab



Gert Kragten, PhD, heads our Reliability Lab and has completed his black belt training in the discipline.

His achievement underscores our commitment to developing and delivering customized valves for your systems, ensuring high reliability and availability.

Gevasol's Reliability Lab in the Netherlands focuses on lifetime testing, failure analysis, and reliability calculation.

It conducts extensive testing throughout a product's life cycle, including production batches and revisions.

The lab maintains a database of test methods and results to ensure consistent evaluation.

By comparing field failures with development-phase failure mechanisms, the lab improves testing reliability and enhances the overall reliability of Gevasol's products.

Applying Reliability to Availability (reduced downtime):

Traditionally, our core emphasis has centered on ensuring the reliability and lifespan of the valves we provide to our OEM customers.

Combining high reliability in our valves with performance diagnostics (already built into the drivers of our spraying valves).

Creating inspection and maintenance plans based on simulation models that predict system reliability and availability.

Ensuring fast and easy repair or replacement during maintenance.

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Keep in touch!



Gert van Emmerik

After completing his technical education, Gert first solved a production backlog of a Nutella-like product. He later gained experience in metal, logistics, and agriculture, focusing on designing custom solutions for customers.

- Lives in Weesp, an old city 20 km south of Amsterdam
- Married to **Rosmarie**
- Father to **three young men**
- Hobbies: "As a Dutch guy, I love football and Austrian cakes!"

gert@gevasol.com



Michaël Lagers

With over 20 years of experience across industries like steel, aluminium, and chemicals, Michaël has a passion for building strong relationships with customers worldwide. He loves understanding their needs, solving challenges, and delivering tailored solutions. As part of the Gevasol team, he thrives on the company's unique, customer-focused approach to creating the right solutions together.

- Lives in Wassenaar
- Married to **Maggie** from Denmark
- Hobbies: Hikes in nature with the dog, birdwatching, history

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