

## Valve Solutions for In Vitro Diagnostics



**High-precision miniature valves designed for diagnostic systems – ensuring safe, precise and reliable fluid control by**

- ... enabling precise sample and media handling
- ... supporting accurate and reliable pipetting operations
- ... dispensing heat-sensitive reagents with high accuracy
- ... ensuring reliable waste handling
- ... integrating seamlessly into automated and compact diagnostic systems

### General application areas:



Analytical & Diagnostic instruments



Hematology



Clinical chemistry



Point of care

## Examples of customized use-cases and Staiger solutions

### For bio-reactors



Valve manifold with 24 very leak tight valves for multi-channel flow control for precise piloting of chemical and biological processes.

### For dispensing applications



Staiger's media-isolated valves guarantee safe, contamination-free reagent dosing and dispensing, making them perfect for precisely handling aggressive or heat-sensitive fluids in automated diagnostic.

### For pipetting applications



Staiger's micro valves provide consistent and exact control of air, vacuum and fluid flow, making them ideal for automated pipetting systems that require accuracy, speed, and contamination-free performance.

### For pneumatic actuation in instruments







Fast-switching, low-power valves from Staiger provide reliable pneumatic control for chemical processes in instruments. Also in a wide temperature and humidity environmental range where other valves loose performance or even fail.

Photo: unsplash-daniel dan



# Staiger Valves for Analytical and IVD Applications

<p><b>2/2-way on/off Valve</b></p>  <p>Ø 5 mm      Ø 21 mm</p>	<p>Miniature, fast-switching valves for accurate gas or liquid flow control and pneumatic sample/reagent actuation in analytical and diagnostic equipment.</p>	<p><b>Sealing material:</b> FKM, FFKM, EPDM  <b>Pressure range:</b> 0 to 10 bar  <b>Kv value:</b> 0.04 to 2.56 lpm  <b>Cv value:</b> 0.0028 to 0.1789 gpm  <b>Max. air flow:</b> 6 to 102 lpm</p> <p>→ More details</p>
<p><b>2-way Proportional Valve</b></p>  <p>Ø 8 mm      Ø 15 mm</p>	<p>Pressure and vaccueme control for precise fluid movement, sample metering and pneumatic actuation in microfluidic and diagnostic devices.</p>	<p><b>Sealing material:</b> FKM, FFKM, EPDM  <b>Pressure range:</b> 0 to 10 bar  <b>Kv value:</b> 0.05 to 0.98 lpm  <b>Cv value:</b> 0.0035 to 0.0685 gpm  <b>Max. air flow:</b> 7.3 to 52 lpm</p> <p>→ More details</p>
<p><b>3/2-way on/off Valve</b></p>  <p>Ø 8 mm      Ø 21 mm</p>	<p>For pneumatic actuation and fluid handling/routing in microfluidic and pipetting systems.</p>	<p><b>Sealing material:</b> FKM, FFKM, EPDM  <b>Pressure range:</b> 0 to 10 bar  <b>Kv value:</b> 0.05 to 3.00 lpm  <b>Cv value:</b> 0.0035 to 0.2097 gpm  <b>Max. air flow:</b> 7 to 80 lpm</p> <p>→ More details</p>
<p><b>2/2-way media-isolated Valve</b></p>  <p>Ø 5 mm      Ø 5 mm with flange</p>	<p>High precision and high speed control of aggressive or sensitive liquids, reagent dosing and sample isolation.</p>	<p><b>Sealing material:</b> FFKM  <b>Pressure range:</b> 0 to 1.3 bar  <b>Kv value:</b> 0.01 to 0.04 lpm  <b>Cv value:</b> 0.0007 to 0.0028 gpm  <b>Max. air flow:</b> 0.16 to 1.5 lpm</p> <p>→ More details</p>
<p><b>2/2-way SMA media-isolated Valve</b></p>  <p>Width 5 mm</p>	<p>Low power control of aggressive or sensitive liquids, reagent dosing and sample isolation.</p>	<p><b>Sealing material:</b> Silicone  <b>Pressure range:</b> 0 to 3 bar  <b>Kv value:</b> 0.08 lpm  <b>Cv value:</b> 0.0055 gpm  <b>Max. air flow:</b> 2 lpm</p> <p>→ More details</p>
<p><b>2/2-way or 3/2-way media-isolated Valve</b></p>  <p>Ø 25.4 mm</p>	<p>High flow control of aggressive or sensitive liquids. Ideal for reagent handling, sample isolation and fluid control.</p>	<p><b>Sealing material:</b> FKM  <b>Pressure range:</b> -1 to 2 bar  <b>Kv value:</b> 0.4 to 1.51 lpm  <b>Cv value:</b> 0.0277 to 0.1047 gpm  <b>Max. air flow:</b> 0.16 to 60 lpm</p> <p>→ More details 2/2-way          → More details 3/2-way</p>
<p><b>2/2-way pinch Valve</b></p>  <p>Ø 25.4 mm</p>	<p>Non-contact fluid control for contamination-free handling of sensitive or viscous liquids.</p>	<p><b>Sealing material:</b> Silicon  <b>Pressure range:</b> 0 to 2 bar  <b>Tube inner diameter:</b> 0.8 mm to 6.4 mm</p> <p>→ More details</p>

## COMPANY PORTRAIT

For more than 50 years we have been developing and producing with about 200 highly qualified employees innovative solenoid valves and valve manifolds according to customer requirements here in Germany.

At our site in Erligheim (nearby Stuttgart) we manufacture everything, from one single piece, over serial production up to mass production. Hereby we also create all necessary

manufacturing and testing devices in house. This unique know how enables us to develop cost efficient high-tech solutions, which create a real competitive advantage for our customers.

It is therefore no coincidence that our customers are global market leaders of the industries Medical Technology, Automotive, Industrial, Pneumatics, Aeronautics and last but not least Drinking Water.

## PERSONALIZED SERVICE & INDIVIDUAL SOLUTIONS



Phone: +49 (0) 7143 2707-0

We gladly provide you with more information about special designs and customized products according to your demands and standards. We look forward to receiving your request.