SAMPLING VALVES

BioCheck

SAMPLING VALVES

For best results and a safe sampling.
Rieger’s BioCheck aseptic valves allow easy and safe sampling of liquids from closed systems such as vessels and pipelines in aseptic as well as non-aseptic applications. The most important feature is the compact design providing integration into aseptic and hygienic production lines. The valve has a dead space free design, that can be easily cleaned and sterilized via CIP/SIP. The PTFE bellows guarantee hermetic sealing against the environment. Industries of application include: dairy, food, beverage, pharmaceutical, cosmetic and chemical.

**BioCheck**

**DESIGN FEATURES**
- Valve body made from solid bar
- No dead spaces
- Resistant to aggressive fluids
- Hermetically sealed against the environment
- Long service life of PTFE bellows
- Drainable
- Bellow leakage indicator

**MAINTENANCE BENEFITS**
- Maximize life cycles
- Ease of cleaning — CIP/SIP
- Folds of the PTFE bellows remain open for easy cleaning
- Modular system makes changing actuator more convenient
- Change seals without special tools
- Minimal downtimes
- Low spare parts cost
- PTFE bellows conform to EU1935 (VD 16/2011) and FDA regulations

**OPTIONS INCLUDE**
- Wide variety of installation positions available
- High quality product surface finishes available, including electropolishing
- Electronic feedback

**STANDARD ACTUATOR VERSIONS**
- Self-closing lever with automatic actuator
- Lever in open position with automatic actuator
- Manual activation with handwheel
- Others on request

**INSTALLATION OF ACTUATOR**
**WITHOUT DAMAGE OF PRODUCT**
**TOUCHED GASKET — NO TWISTING OR SQUEEZING OF PTFE-BELLOW**

**ONLY ONE-PIECE SEALING (PTFE BELLOW) IN CONTACT WITH PRODUCT**

**WE ARE ONLY USING THE PTFE BELLOW AND NO OTHER DIAPHRAGMS. THIS IS WHY:**
Sealing is via the PTFE bellow. This seat (circled in blue) is not moving either axially or radially, resulting in hermetic sealing with a leak-tightness of minimum $a \times 10^{-5}$ mbar l/min. $\Delta p = 6$ bar depending on type. Certification according to TA-LUFT (VDI 2460/VDO 3479) was issued.
BioCheck Series

**BioCheck Classic**
- Available with 1 or 2 ports
- Stroke: Standard DN 10 DIN [1/2"] = 3 mm
- Various actuator types available
- Process Connections: Weld-in tube

**BioCheck Mini**
- Available with 1 or 2 ports
- Stroke: Mini DN 6 and 8 DIN [1/4” – 3/8”] = 1.5 mm
- Various actuator types available
- Process Connections: Weld-in tube

**BioCheck Compact**
- Available with 1 or 2 ports
- Stroke: Standard DN 10 DIN [1/2"] = 3 mm
- Various actuator types available
- Process Connections: Weld-in tube

For liquid products, such as beverages, milk, beer, etc.

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**BioCheck Combi**
- Available with 1 port + 1 CIP/SIP valve
- Stroke: Standard DN 10 DIN [1/2"] = 3 mm
- Various actuator types available
- Process Connections: Weld-in tube

For liquid products, such as beverages, milk, beer, etc.

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**Selection Chart**

- **BioCheck Series**
  - Classic
  - Mini
  - Compact
  - Combi

For more details on the versions and pricing, request our catalogue.

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**Details**
- **Material product touched**
  - 1.4404/316L
  - 1.4435 BN2
  - 1.4559/904L
  - Hastelloy C22
- **Inner Surface Finish**
  - Ra < 0.8 μm mechanical polished
  - Ra < 0.8 μm e-polished
  - Ra < 0.5 μm e-polished
- **Document**
  - 3.1 Material Certificate for Metals
  - USP Class VI for Gaskets

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**ACTUATOR**
- pneumactic NC with bracket (stroke limitation yes/no)
- pneumactic with Lever
- self-closing Lever
- Lever for „open“ Position
- removable Lever

For other actuators see Catalogue.

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**PROCESS CONNECTION**
- Weld Ends
- ASME BPE
- ISO 2852 / ISO 1127
- 3/8” Thread (BioCapS) with Knob and Chain
- BioCap Rubber Cap with Chain
- BioShut (for pressures up to 10 bar)
- Quick Coupling for PTFE Hose
- On both Sides?
- How many Meters of PTFE Hose?

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- Material Certificate for Metals
  - USP Class VI for Gaskets
  - FDA for Gaskets
  - Operating and Maintenance Instructions

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**FIGURE**
- Type H
- Type P
- Type S
- Type O
- Type N
- Type F
- Type L
- Type C
- Type I
- Type J

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**TABLE**
- Size of the Outlets
- Type of Outlets
- Details

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**QTY**
- Nozzles for Quick Coupling

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**NUMBER OF THE OUTLETS**
- 1 Outlet (only sample)
- 2 Outlets (CIP/SIP and sample)

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**DESCRIPTION**
- 3.1 Material Certificate for Metals
- USP Class VI for Gaskets
- FDA for Gaskets
- Operating and Maintenance Instructions

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**NOTES**
- 1 only for Classic
- 2 only for Mini
- 3 only for Compact
- 4 only for Combi
Areas of Use BioCheck

WE OFFER THE RIGHT SAMPLING VALVE FOR YOUR APPLICATION

<table>
<thead>
<tr>
<th>Sampling Valve with 1 Port</th>
<th>Sampling Valve with 2 Ports</th>
<th>Sampling Valve with Additional CIP/SIP Valve - Directly Attached Without Deadspace (0 D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP only during main cleaning of process possible</td>
<td>CIP/SIP directly before sampling</td>
<td>CIP/SIP directly before sampling without backflow in process line</td>
</tr>
<tr>
<td>Standard for low sensitive media, such as juice, beer, CIP, etc.</td>
<td>Standard for sensitive products, e.g. in Biotechnologies, dairy products, etc. also for bacterial counts</td>
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Please also consider the associated process.

CHEMICAL OR PHYSICAL SAMPLING / BioCheck Classic / BioCheck Compact

CHEMICAL OR PHYSICAL OR MICROBIOLOGICAL SAMPLING / BioCheck Classic / BioCheck Compact / BioCheck Mini

CHEMICAL OR PHYSICAL OR MICROBIOLOGICAL SAMPLING / BioCheck Combi

WE OFFER THE RIGHT SAMPLING VALVE FOR YOUR APPLICATION

CHEMICAL OR PHYSICAL SAMPLING
/
BioCheck Classic
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CHEMICAL OR PHYSICAL OR MICROBIOLOGICAL SAMPLING
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BioCheck Combi

Available Options

<table>
<thead>
<tr>
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<td>BioCheck Classic with 1 port</td>
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<tr>
<td>BioCheck Classic with 2 ports</td>
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<tr>
<td>BioCheck Combi</td>
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<tr>
<td>with welded T-piece</td>
</tr>
<tr>
<td>Helicopter Valve for dosing</td>
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<tr>
<td>Classic DN 15 for viscous media</td>
</tr>
<tr>
<td>Actuators with brackets for proximity switch</td>
</tr>
<tr>
<td>Classic DN 10 for insulated tanks</td>
</tr>
</tbody>
</table>

MAXIMUM PURITY

BUDGET
With the BioCheck sampling system, samples can be taken from sealed systems like tanks and pipelines simply and safely. In the design of this sterile valve, special attention was paid to an aseptic and at the same time highly compact design. That incorporation in both sterile and CIP/SIP circuits is straightforward and, above all, the sampling is without contamination.

### STERILE BOTTLE SAMPLING
- Utilizes standard laboratory bottles
- Connection thread GL45 ISO
- For 100 ml to 2,000 ml samples
- No air contamination
- Autoclavable
- Fully aseptic system
- Including adapter for sterile air filter

### STEPS OF SAMPLING PROCEDURE
1. The product flows through the pipeline. The BioCheck valve 1 and CIP/SIP valve 2 are closed.
2. After the bottle including bottle head (see picture 1) has been sterilized in the autoclave, connect the bottle to the sampling port. Both valves on the bottle (valve 3 and valve 4) are closed.
3. Open the CIP/SIP valve 3 and bottle valve 4 for sterilization. The steam sterilizes the entire system but not the bottle. This was sterilized before in the autoclave (see 2.).
5. Open the BioCheck valve 1 and the valve for sampling in the bottle 5.
6. When sampling is completed, close the BioCheck valve 1.
7. After the piping has been drained, close the valve for bottle sampling on the bottle. The entire system is now sealed.
8. Remove the sampling bottle.

### BIOCHECK INCLINED SEAT VALVE
Based on the BioCheck Sampling Valve, the BioCheck Inclined Seat Valve is the real aseptic alternative to diaphragm valves in the industry. Based on the long life sealing elements, they are also used in filling machines.

### FEATURES AND BENEFITS
- One-piece sealing
- No dead legs
- Completely drainable

### PIPE CONNECTIONS
... also with quick-coupling [comparable to existing systems]

Scan QR Code and watch the video of the sampling procedure.
The NEUMO Ehrenberg Group is a family run holding, which is operating worldwide with more than 2,100 employees.

Since 1958 Gebr. Rieger has been a member of the NEUMO Ehrenberg Group. In our department valve technology Gebr. Rieger is successfully working in the fields of valves, customized solutions, such as valve blocks and tubular structures as well as system engineering, which includes valve clusters, units, CIP-systems and all kinds of plug and play solutions.

By its global approach Rieger gained international attention in the markets of food, beverage and pharmaceutical industries.

Besides the Sampling Valves the valve range also includes Mix Proof Valves, Filling Valves and Pigging Systems.

YOU DON’T HAVE TO CHANGE YOUR PROCESS. WE ADAPT OUR VALVES TO YOUR PROCESS!

With our longstanding experiences and our specialized production we can offer the suitable valve for almost every application.

Make an appointment today for a free consultation for your specific application.

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YOU DIDN'T FIND THE RIGHT VALVE?

Further Rieger valve types upon request and in our catalogue. Contact your dedicated sales manager in our sales team in your area.