

Rightangled diaphragm valve system

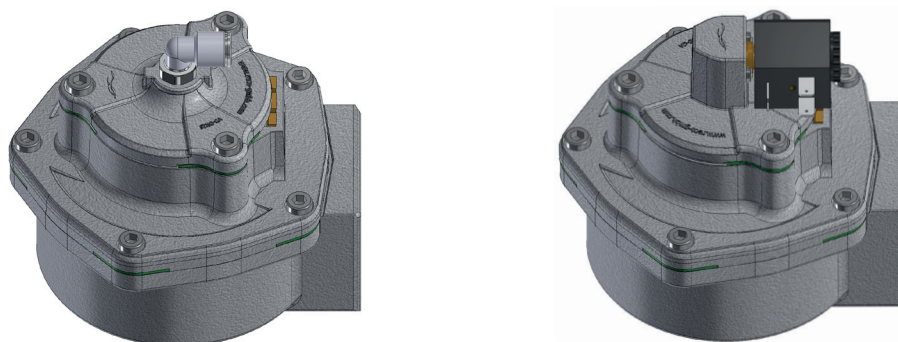
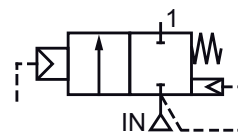
Range VR-DN40-VS 25 AL

Operating instructions



Function

The VR-DN40-VS25AL range from the CleaningLine series is a 2/2-way rightangled diaphragm valve with DN40 2-way Power Reflex diaphragm valve and DN25 pilot control. The valve body is made from aluminium and is designed with a 1½ inch internal thread for the input side and the output side. The diaphragm cover is designed with a solenoid valve for the electrical control or with a internal 1/4" thread for the pneumatic control.



Installation

Products and components from the CleaningLine series may only be used and operated within their indicated specifications. Before installing the valve bonnet, the compressed air system has to be cleaned inside and the pressure connection must be isolated from the pressure. Users are not allowed to perform any modifications on the valve bonnets.

These valves can be fitted in any position. For the flow direction and the piping connections see the dimensioned drawing. All commercial fittings with a straight 1½ inch external thread can be used for all pipe connections.

Attention !



- Always use suited tools for the installation of these valves – wrench A/F 60.
- To prevent any damage to the valve body, only pipe connections with straight threads may be used. The maximum tightening torque for the connections is 12 Nm
- For a gas-tight connection of the valves, the pipe connections must be sealed using suitable sealing material. Make sure that no sealing material comes into the pipes or valve body.
- Any reduction in the piping will result in performance losses and may impair the function.
- For a reliable function of the valves, protect the pressurised parts against soiling.
- All pipe connections must be installed in line and at right angles and they must not transfer any stresses onto the valve.
- These valves are not allowed to be used as structural element and must always be operated within the admissible operating pressure range.

Commissioning

The correct installation, especially compliance with the warning notices, should be verified before applying pressure to the valves. The pressure applied may not be higher than the max. operating pressure of the valves.

Attention !



The valves open suddenly across the full cross-section within 30-40 ms. Medium escaping under pressure may cause injuries.

Noise emission strongly depends on the application, fitting situation and the pilot pressure of the valves. The exact determination of the noise level is therefore possible only by the manufacturer of the final product.

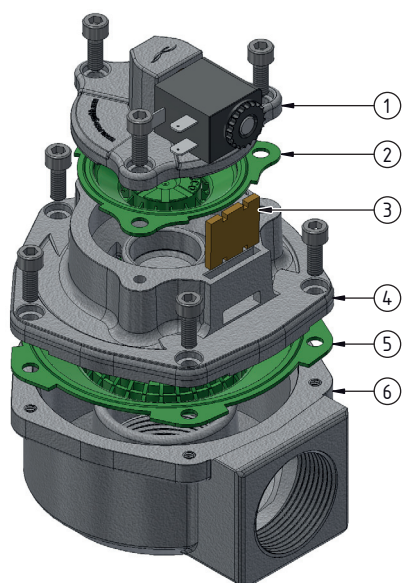
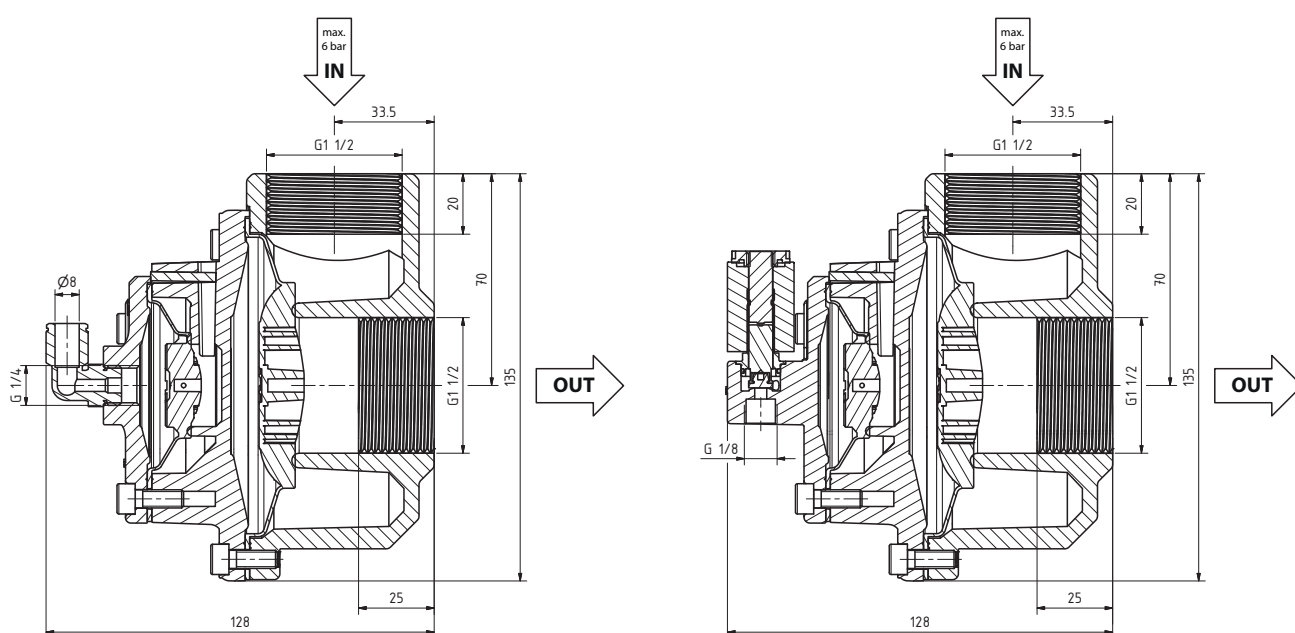
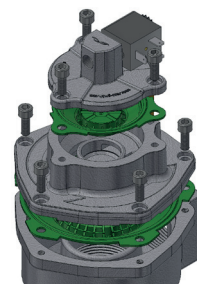
Service

Service of pressurised structures and fittings depends largely on the operating conditions and should be performed at regular intervals. Flawless function must be verified and a visual check for wear and leaks performed during service. Spare parts are available for all products of RECO's CleaningLine series. The screws of the valve cover must be loosened and the parts removed to replace the diaphragm or perform service tasks. The order for dismantling and assembling the valves is shown on the explosion drawing (see below).

Attention !



- Work on the diaphragm valve may be performed only while depressurised.
- The diaphragms must be inserted into the valve body with the pressure plate facing down.
- The valve covers must enclose the diaphragms from all three sides.
- First start all valve cover screws.
- Then tighten the screws one after the other uniformly in several steps with a max. torque of 7 Nm. If the screws are screwed down unevenly, the diaphragms may jump out of the grooves of the valve covers, the covers may be damaged and the function of the diaphragms compromised.



- ① Valve cover VD-DN25-24VDC AL
- ② Power Reflex diaphragm MB-DN25
- ③ Silencer
- ④ Valve cover VD-DN40-VS25
- ⑤ Power Reflex diaphragm MB-DN40
- ⑥ Valve body

Item numbers / Technical data

Product Product No.	VR-DN40-VS25 AL-8P 70100188	VR-DN40-VS25 AL-8P HT PLUS 70100189
Raw gas temperature	-20°C ... +100°C	-40°C ... +140°C
Ambient temperature	-20°C ... +85°C	-40°C ... +85°C
Purge gas temperature	-20°C ... +85°C	
Control connection	Internal thread G 1/4 inch / Push-fit for 8/6 mm hose	
Valve type	2/2-way valve	
Pressure range	1.5 bar ... 6 bar	
Size	DN40	
Installation connections	Internal thread DN40 G1½ / Internal thread DN40 G1½	
Medium	Compressed air of the quality class 2 (ISO 8573)	
Material	Aluminium	

Product Product No.	VR-DN40-VS25 AL-24VDC 70100172	VR-DN40-VS25 AL-24VDC HT PLUS 70100173	VR-DN40-VS25 AL-24VDC ATEX 70100174	VR-DN40-VS25 AL-24VDC ATEX HT PLUS 70100175	VR-DN40-VS25 AL-24VDC UL 70100176	VR-DN40-VS25 AL-24VDC UL HT PLUS 70100177
ATEX approval	—	—	✓	✓	—	—
UL approval	—	—	—	—	✓	✓
Raw gas temperature	-20 ... +100°C	-40 ... +140°C	-20 ... +100°C	-40 ... +140°C	-20 ... +100°C	-40 ... +140°C
Ambient temperature	-20°C ... +85°C					
Purge gas temperature	-20°C ... +85°C					
Control connection	Solenoid valve 24VDC / 22 W / duty cycle 10%					
Valve type	2/2-way valve					
Pressure range	1.5 bar ... 6 bar					
Size	DN40					
Installation connections	Internal thread DN40 G1½ / Internal thread DN40 G1½					
Medium	Compressed air of the quality class 2 (ISO 8573)					
Material	Aluminium					

Product Product No.	VR-DN40-VS25 AL-230VAC 70100180	VR-DN40-VS25 AL-230VAC ATEX 70100181	VR-DN40-VS25 AL-24VDC ATEX HT PLUS 70100182	VR-DN40-VS25 AL-24VDC HT PLUS 70100183	VR-DN40-VS25 AL-24VDC UL 70100184	VR-DN40-VS25 AL-24VDC UL HT PLUS 70100185
ATEX approval	—	✓	✓	—	—	—
UL approval	—	—	—	—	✓	✓
Raw gas temperature	-20 ... +100°C	-20 ... +100°C	-40 ... +140°C	-40 ... +140°C	-20 ... +100°C	-40 ... +140°C
Ambient temperature	-20°C ... +85°C					
Purge gas temperature	-20°C ... +85°C					
Control connection	Solenoid valve 230VAC / 23 VA / duty cycle 10%					
Valve type	2/2-way valve					
Pressure range	1.5 bar ... 6 bar					
Size	DN40					
Installation connections	Internal thread DN40 G1½ / Internal thread DN40 G1½					
Medium	Compressed air of the quality class 2 (ISO 8573)					
Material	Aluminium					

Product Product No.	VR-DN40-VS 25 AL-120 VAC UL 70100186	VR-DN40-VS 25 AL-120 VAC UL HT PLUS 70100187
ATEX approval	—	—
UL approval	✓	✓
Raw gas temperature	-20 ... +100°C	-40 ... +140°C
Ambient temperature	-20°C ... +85°C	
Purge gas temperature	-20°C ... +85°C	
Control connection	Solenoid valve 120 VAC / 23 VA / duty cycle 10%	
Valve type	2/2-way valve	
Pressure range	1.5 bar ... 6 bar	
Size	DN40	
Installation connections	Internal thread DN40 G1½ / Internal thread DN40 G1½	
Medium	Compressed air of the quality class 2 (ISO 8573)	
Material	Aluminium	

The staff of RECO GmbH will be glad to answer any questions or provide additional information about the product, operation or service.

Disclaimer

The contents of this documentation have been verified for correctness and completeness. Nevertheless, errors can not be excluded so that we cannot guarantee the correctness of this information. Subject to alterations at any time.

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