

## Operating instructions

### Converting a solenoid valve without damping unit into a solenoid valve with damping unit or replacing the damping unit for VG 40–100, VR 40–100, VAS 6–8 and MB 7



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## Safety

### Please read and keep in a safe place



Please read through these instructions carefully before installing or operating. Following the installation, pass the instructions on to the operator. This unit must be installed and commissioned in accordance with the regulations and standards in force. These instructions can also be found at www.docuthek.com.

### Explanation of symbols

■, **1**, **2**, **3**... = Action

> = Instruction

### Liability

We will not be held liable for damage resulting from non-observance of the instructions and non-compliant use.

### Safety instructions

Information that is relevant for safety is indicated in the instructions as follows:

#### **⚠ DANGER**

Indicates potentially fatal situations.

#### **⚠ WARNING**

Indicates possible danger to life and limb.

#### **! CAUTION**

Indicates possible material damage.

All interventions may only be carried out by qualified gas technicians. Electrical interventions may only be carried out by qualified electricians.

### Conversion, spare parts

All technical changes are prohibited. Only use OEM spare parts.

## Changes to edition 01.15

The following chapters have been changed:

- Retrofitting the damping unit

## Checking the usage

### Intended use

These instructions are only to be used for converting the following devices:

Designation	Conversion	
	from quick opening	to slow opening
Gas solenoid valve	VG 40–100N	VG 40–100L
Air solenoid valve	VR 40–100N	VR 40–100L
Gas solenoid valve	VAS 6–8N	VAS 6–8L
Solenoid actuator	MB 7N	MB 7R

or for replacing the existing damping units on the following devices:

Designation	Slow opening
Gas solenoid valve	VG 40–100L, VAS 6–8L
Air solenoid valve	VR 40–100L, VR 40–100R
Solenoid actuator	MB 7L, MB 7R

This function is only guaranteed when used within the specified limits – see Technical data in the operating instructions of the device to be converted. Any other use is considered as non-compliant.

All other specifications regarding commissioning, technical data, maintenance, etc. can be found in the corresponding operating instructions of the device to be converted.

[www.docuthek.com](http://www.docuthek.com) → Thermal Solutions → Products → O3 Valves and butterfly valves ...

Solenoid valve for gas VG,

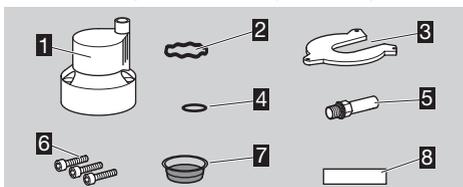
Solenoid valve for air VR,

Solenoid actuator MB 7,

Solenoid valves for gas VAS ..., VCS ...

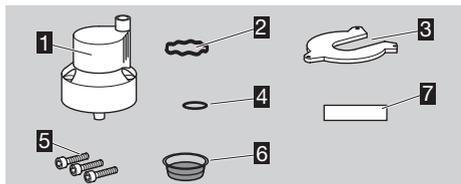
### Part designations

#### Slow opening/quick closing damping unit:



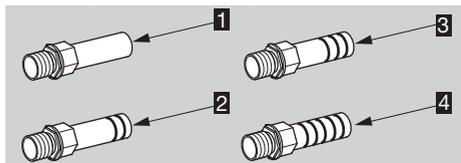
- 1 Damping unit
- 2 Compensating disc
- 3 Retaining plate
- 4 O-ring
- 5 Adjusting screw with retaining ring
- 6 Allen screws
- 7 Cap with grease
- 8 Sticker

#### Slow opening/slow closing damping unit:



- 1 Damping unit
- 2 Compensating disc
- 3 Retaining plate
- 4 O-ring
- 5 Allen screws
- 6 Cap with grease
- 7 Sticker

#### Adjusting screw marking



- 1 0 grooves: VG 40–50, VR 40–50, MB 7, VAS 7
- 2 2 grooves: VG 65, VR 65
- 3 3 grooves: VAS 8, VG 80–100, VR 80–100
- 4 5 grooves: VAS 6

## Retrofitting the damping unit

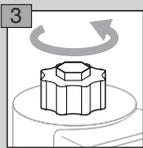
### ⚠ WARNING

Attention! Please observe the following to ensure that no damage occurs:

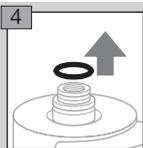
- Electric shocks can be fatal! Before working on possible live components, ensure the unit is disconnected from the power supply.
- The solenoid actuator heats up during operation. Surface temperature approx. 85°C (approx. 185°F) pursuant to EN 60730-1.



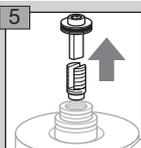
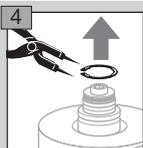
- 1 Disconnect the system from the electrical power supply.
  - 2 Shut off the gas supply.
- ▷ Use a 6 mm Allen key.



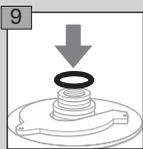
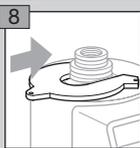
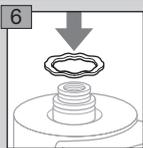
VG, VR



VAS

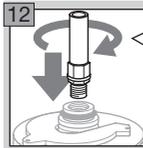


VG, VR, VAS, MB 7

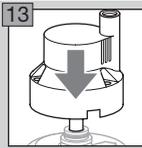


## Slow opening/quick closing

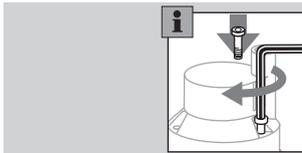
- 11 Check the adjusting screw, see page 2 (Adjusting screw marking).



Turn until about 1/3 of a turn remains before stop.



- 14 Turn the damping unit until the hexagon and compression fitting are inserted in the housing of the damping unit.
  - 15 Push the damping unit onto the actuator applying pressure and secure using two screws.
- ▷ Do not fit the third screw until the start gas rate has been set.



### ! CAUTION

Tightness can no longer be guaranteed. To ensure that there are no leaks, check the connection between the solenoid actuator and the damping unit for tightness.

- 16 Open the gas supply and check for tightness, see page 5 (Tightness test).
- 17 Open the gas solenoid valve and set the start gas rate, see page 5 (Setting the start gas rate).

## Replacing the damping unit

### ⚠ WARNING

Attention! Please observe the following to ensure that no damage occurs:

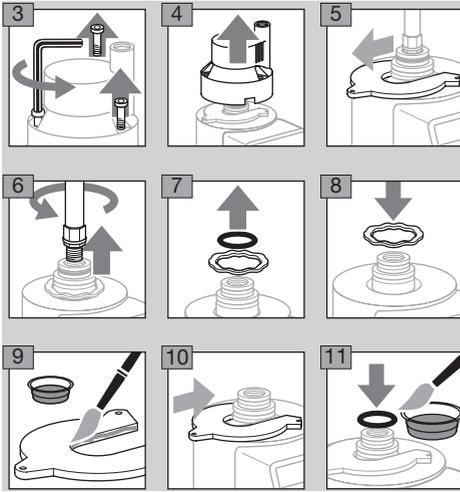
- Electric shocks can be fatal! Before working on possible live components, ensure the unit is disconnected from the power supply.
- The solenoid actuator heats up during operation. Surface temperature approx. 85°C (approx. 185°F) pursuant to EN 60730-1.



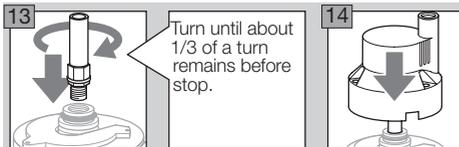
- ▷ Use a 6 mm Allen key.
- ▷ Replace all parts from the conversion kit.

## Slow opening/quick closing

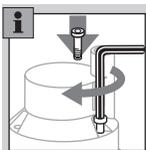
- 1 Disconnect the system from the electrical power supply.
- 2 Shut off the gas supply.



- 12 Check the adjusting screw, see page 2 (Adjusting screw marking).



- 15 Turn the damping unit until the hexagon and compression fitting are inserted in the housing of the damping unit.
- 16 Push the damping unit onto the actuator applying pressure and secure again using two screws.
  - ▷ Do not fit the third screw until the start gas rate has been set.



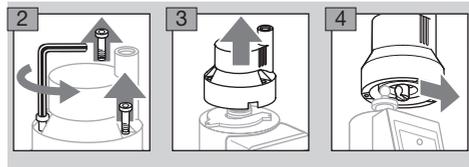
## ! CAUTION

Tightness can no longer be guaranteed. To ensure that there are no leaks, check the connection between the solenoid actuator and the damping unit for tightness.

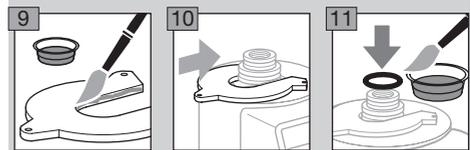
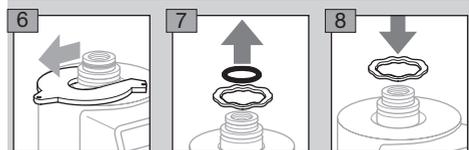
- 17 Open the gas supply and check for tightness, see page 5 (Tightness test).
- 18 Open the solenoid valve and set the start gas rate, see page 5 (Setting the start gas rate).

## Slow opening/slow closing

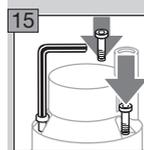
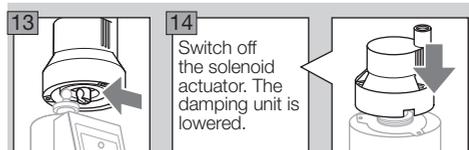
- 1 Shut off the air supply.
  - ▷ The solenoid actuator remains switched on.



- 5 Switch off the solenoid actuator. Otherwise, the solenoid actuator will heat up unnecessarily.



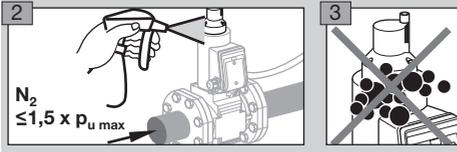
- 12 Switch on the solenoid actuator so that the guide pin becomes visible.



- 16 Open the air supply and switch on the power supply.

## Tightness test

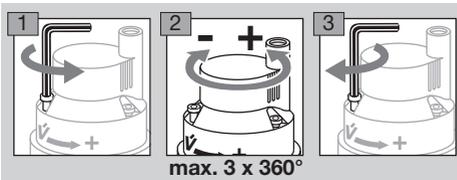
1 To be able to check the tightness, shut off the downstream pipeline close to the valve.



4 Tightness OK: open the pipeline.

## Setting the start gas rate

- ▷ The start gas rate can be set by turning the damping unit a maximum of 3 turns.
- ▷ There must be a period of 20 seconds between switching the valve off and on again so that the damping is fully effective.
- ▷ Use a 3 mm Allen key.
- ▷ Undo the screw at the “VStart” mark by approx. 1 mm, but do not unscrew completely.



## Logistics

### Transport

Protect the unit from external forces (blows, shocks, vibration). On receipt of the product, check that the delivery is complete, see page 2 (Part designations). Report any transport damage immediately.

### Storage

Store the product in a dry and clean place.

Storage temperature: see operating instructions of the respective device.

Storage time: 6 months before using for the first time. If stored for longer than this, the overall service life will be reduced by the corresponding amount of extra storage time.

### Packaging

The packaging material is to be disposed of in accordance with local regulations.

### Disposal

Components are to be disposed of separately in accordance with local regulations.

## Contact

If you have any technical questions, please contact your local branch office/agent. The addresses are available on the Internet or from Elster GmbH.

We reserve the right to make technical modifications in the interests of progress.

# Honeywell

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