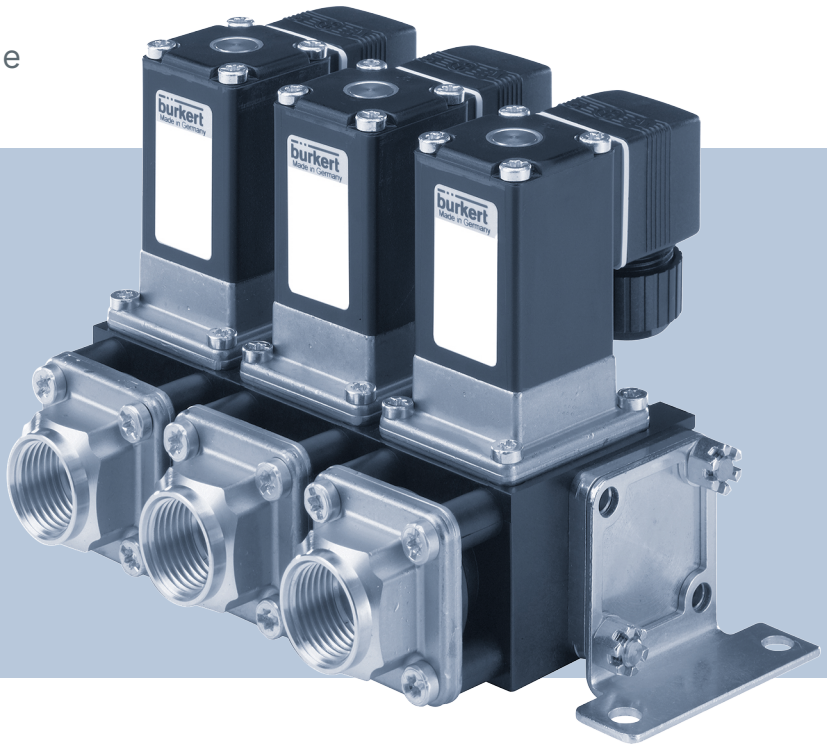
bürkert
FLUID CONTROL SYSTEMS

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

Type 0287

2/2-way solenoid valve, stackable



Operating Instructions

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

Technical documentation 2511/03_GBen_00893190_1213344907_9007200468075019 / Original DE

Table of contents

1 About this document 4
1.1 Symbols 4
1.2 Manufacturer 5
1.3 Terms and abbreviations 5
2 Safety 6
2.1 Intended use 6
2.2 Basic safety instructions 6
3 Product description 8
3.1 General description 8
3.2 Block installation 9
4 Technical data 10
4.1 Standards and directives 10
4.2 Operating conditions 10
4.3 Usage conditions 10
4.4 Type label 13
5 Installation 14
5.1 Safety instructions 14
5.2 Before installation 14
5.3 Installation 14
5.4 Electrical connection of cable plug 15
5.5 Manual override HA15, optional 16
6 Maintenance, troubleshooting 17
6.1 Safety instructions 17
6.2 Troubleshooting 17
7 Spare parts 18
7.1 Ordering spare parts 18
7.2 Overview of spare parts 18
8 Logistics 20
8.1 Transport and storage 20
8.2 Return 20
8.3 Disposal 20

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

1 About this document

The document is an important part of the product and guides the user to safe installation and operation. The information and instructions in this document are binding for the use of the product.

- Before using the product for the first time, read and observe the whole safety chapter.
- Before starting any work on the product, read and observe the respective sections of the document.
- Keep the document available for reference and give it to the next user.
- Contact the Bürkert sales office for any questions.

Further information concerning the product at Products.

- Enter the article number from the type label in the search bar.

The illustrations in these instructions may vary depending on the product variant.

1.1 Symbols

DANGER!

Warns of a danger that leads to death or serious injuries.

WARNING!

Warns of a danger that can lead to death or serious injuries.

CAUTION!

Warns of a danger that can lead to minor injuries.

NOTICE!

Warns of property damage on the product or the installation.

Indicates important additional information, tips and recommendations.

Refers to information in this document or in other documents.

- Indicates a step to be carried out.

✓ Indicates a result.

Menu Indicates a software user-interface text.

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

1.2 Manufacturer

Bürkert Fluid Control Systems

Christian-Bürkert-Str. 13–17

74653 Ingelfingen

GERMANY

The contact addresses are available at Contact.

Need more information or additional products?

- Explore the full range of products on our eShop.

1.3 Terms and abbreviations

The terms and abbreviations are used in this document to refer to following definitions.

Product	Solenoid valve Type 0287

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

2 Safety

2.1 Intended use

Unauthorised use of the Type 0287 solenoid valve may be dangerous to people, nearby equipment and the environment.

- The device is designed for controlling, shutting off and dosing neutral media with a viscosity of up to 21 mm2/s.
- With a properly connected and assembled cable plug, e.g. Bürkert Type 2508, the device complies with degree of protection IP65 in accordance with DIN EN 60529/ IEC 60529.
- When using the device, observe the authorised data, and the operating and usage conditions specified in the contract documents and in the operating instructions.
- Prerequisites for safe and trouble-free operation are correct transport, correct storage and installation as well as careful operation and maintenance.
- Only use the device as intended.

2.2 Basic safety instructions

These safety instructions do not make allowance for any unforeseen circumstances or incidents which may arise during installation, operation and maintenance.

Danger – high pressure

- Before loosening lines and valves, turn off the pressure and vent the lines.

Danger due to electrical voltage

- Before reaching into the device or the system, switch off the power supply and secure it against reactivation.
- Observe the applicable accident prevention and safety regulations for electrical devices.

Risk of burns/fire due to hot device surface if device operated continuously

- Keep the device away from highly flammable substances and media and do not touch with bare hands.

Risk of injury from malfunctioning valves with alternating current (AC)

A seized core will cause the coil to overheat, which leads to functional failure.

- Monitor the working process for proper function.

Risk of short circuit/escape of medium due to leaking fittings

- Make sure valve seats are properly seated.
- Screw valve and connection lines together carefully.

General hazardous situations

To prevent injuries, the following must be observed:

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

- Do not make any internal or external changes. Secure the system/device against unintentional activation.
- Installation and maintenance must be performed by authorised technicians and with the appropriate tools.
- The process must be restarted in a defined or controlled manner after an interruption in the power supply or pneumatic supply.
- Do not subject the body/housing to mechanical stress.
- Comply with the generally accepted engineering standards.
- In explosion-protected areas, the device may only be used if an appropriate additional marking is affixed to the type label. The additional information and safety instructions relating to Ex areas enclosed with the device must be adhered to when deploying the device.

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

3 Product description

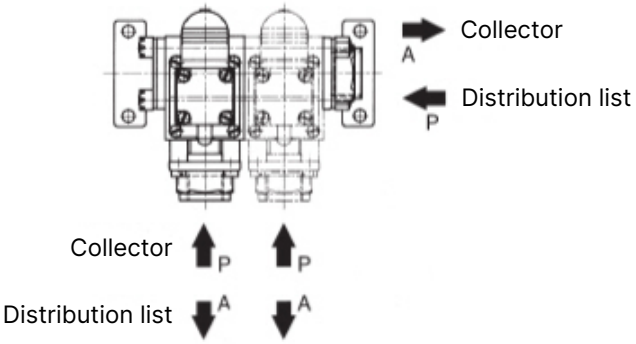
3.1 General description

The solenoid valve modules (MV modules) are stacked into blocks using tie rods and connection pieces.

The following functions of the valve are available:

- Distributor (1 input, 2–10 outputs)
- Collector (1 output, 2–10 inputs)
- mixed (2–10 MV modules)

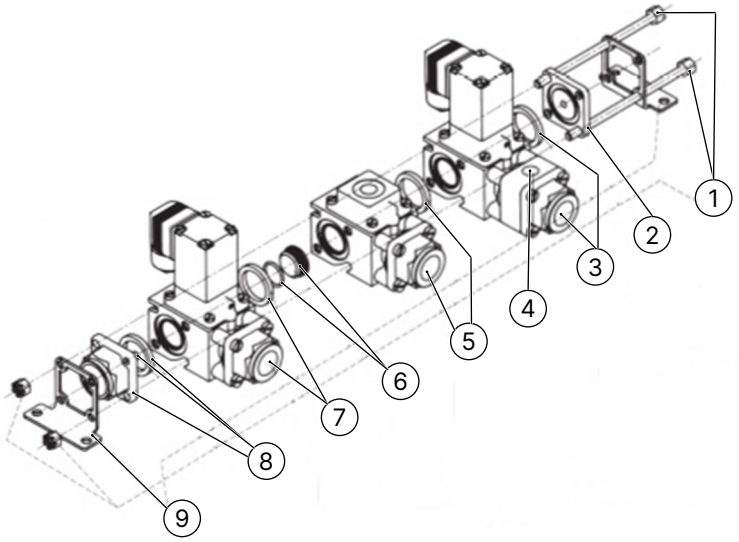
The MV modules with collector function are equipped with a check valve in front as standard. The minimum pressure differential is thereby increased to 1 bar.



MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

3.2 Block installation

The following drawing shows an example of which components can belong to a block and where the accessories can be used.



1	Two tie rods	2	Blind plate or connection without quad-ring
3	MV module with or without adapter 1) or T-module 2) with quad-ring	4	Additional connection
5	MV module or T module with quad-ring	6	Partition wall with O-ring
7	MV module with or without adapter 1) or T-module 2) with quad-ring	8	Blind plate or connection with quad-ring
9	2 Mounting brackets		

1) The adapter offers:

- the possibility for a sampling connection for sample extraction
- the installation of a sensor for measuring certain physical or chemical values of the medium

2) T-module: supply module with G1/2 connection; others on request

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

4 Technical data

4.1 Standards and directives

This product complies with the legal requirements applicable at the time of placing on the market and has been developed and tested in accordance with the relevant European directives/regulations and harmonized standards. The conformity is documented and, if necessary, supported by evidence. The EU Declaration of Conformity can be found behind the respective type on the home page country.burkert.com

4.2 Operating conditions

The following values are indicated on the type label:

- Voltage (tolerance ± 10%) / current type
- Coil power (active power in W – at operating temperature)
- Pressure range
- Body material: glass fibre reinforced polyamide; connections: brass (MS)
- Seal material: FKM, EPDM, NBR
- Function of the valve: collector or distributor, can be mixed on the block

Circuit function of 2/2-way valve:

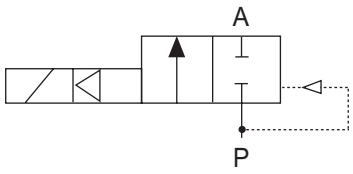


Fig. 1: A (NC)

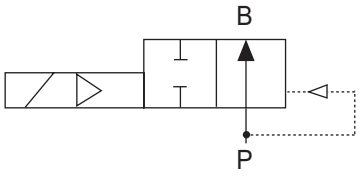


Fig. 2: B (NO)

Degree of protection:	IP65 in accordance with DIN EN 60529/IEC 60529 with cable plug, e.g. Bürkert Type 2508
Storage temperature	–40 °C...+80 °C

4.3 Usage conditions

Ambient temperature:	max. +55 °C

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

Seal material	Permitted medium temperature
NBR	0...+70 °C
FKM	0...+70 °C
EPDM	0...+70 °C

Tab. 1: Permissible medium temperature depending on seal material:

Seal material	Permitted media
FKM	Diesel and heating oil without additives, water with additives
EPDM	Oil and fat-free liquids, cold and hot water
NBR	Water

Tab. 2: Permissible media depending on the seal material:

Operating duration:	Unless otherwise specified on the type label, the solenoid actuator is suitable for continuous operation. In versions with high-performance coil, a maximum of 6 cycles per minute are possible. This applies to devices with a power rating of 80/6 W.

	With AC/DC high-performance electronics	Without electronics assemblies 50 Hz, 60 Hz
Ambient temperature (see following figure intermittent operation)	Max. +70 °C	max. +55 °C
Operating mode (acc. to DIN VDE 0580)	Continuous operation Intermittent operation (for determining the permissible operating parameters, see following figures)	Continuous operation Intermittent operation
Temperature protection switch	The device has a resetting temperature protection switch that shuts off the device in case of impermissible heating during intermittent operation. Switch on again only after cooling down and new switch request.	without

Tab. 3: Electrical operating conditions

Intermittent operation for variant with high-performance electronics AC/DC

Characteristic values (acc. to DIN VDE 0580)

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

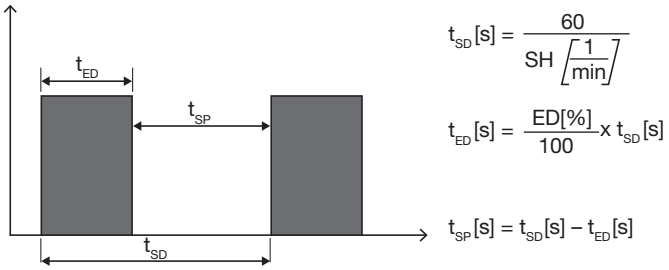


Fig. 3: Intermittent operation characteristics for variants with high-performance electronics

t_{SD} – cycle time
t_{ED} – duty cycle
t_{SP} – currentless break
ED – relative duty cycle
SH – switching frequency

Permissible operating parameters

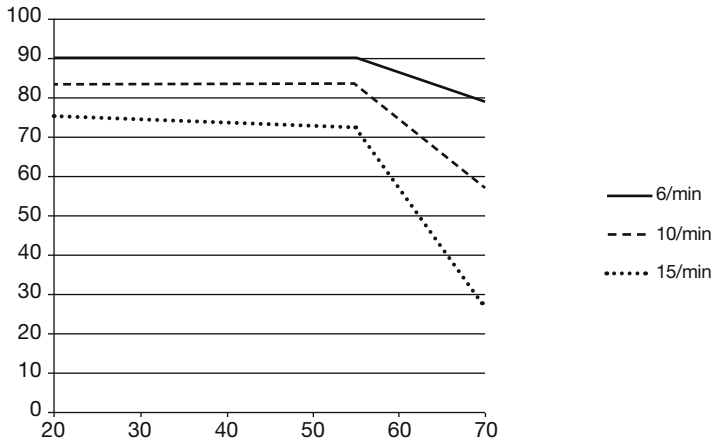


Fig. 4: Relative duty cycle dependent upon switching frequency

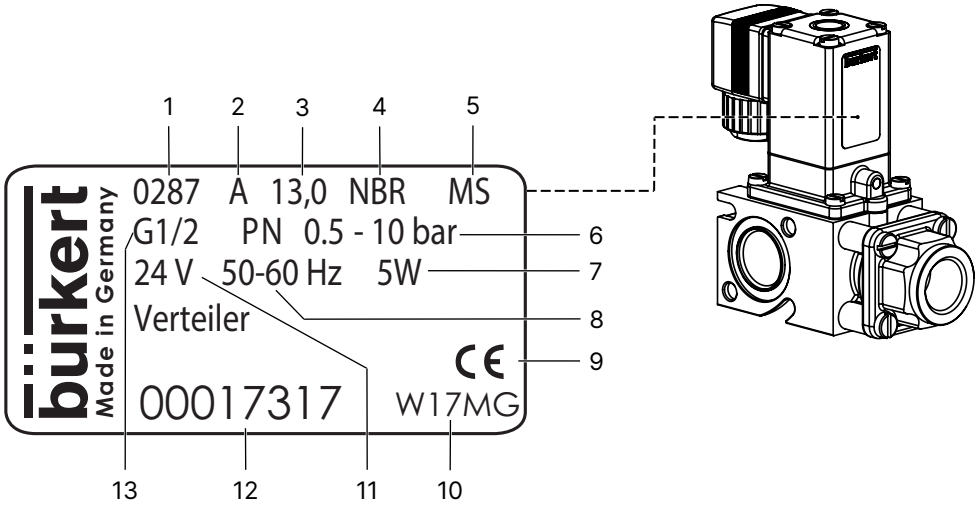
Important information regarding functional reliability during continuous operation

- During a long downtime at least 1–2 switching operations per day are recommended.

Service life:	High switching frequency and high pressure will reduce overall service life

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

4.4 Type label



1	Type	2	Circuit function
3	Orifice	4	Sealing material
5	Body material	6	Operating pressure
7	Power	8	Frequency
9	CE marking	10	Manufacture code
11	Voltage	12	Article number
13	Connection type		

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

5 Installation

5.1 Safety instructions

DANGER!

Risk of injury from high pressure in the system

- Before loosening lines or valves, switch off the pressure and vent the lines.

DANGER!

Risk of injury from electric shock

- Before reaching into the device or the system, switch off the power supply and secure it against reactivation!
- Observe the applicable accident prevention and safety regulations for electrical devices!

WARNING!

Risk of injury due to improper installation

- Installation must be carried out by authorised technicians only and with the appropriate tools!

WARNING!

Risk of injury from unintentional activation of the system and uncontrolled restart

- Secure the system against unintentional activation.
- Ensure a controlled restart after installation.

5.2 Before installation

Installation position: any, preferably with actuator on top.

Approach:

- Clean pipelines of any contamination.
- Install a dirt trap upstream of the valve inlet (≤400 µm).

5.3 Installation

CAUTION!

Caution! Risk of breakage

- Do not use the coil as a lever arm.

- Hold the device firmly at the body with suitable tools and screw it into the pipeline (maximum permissible torque for port connection 40 Nm).

The valve body must not be installed under tension.
Seal material must not get into the device.

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

- Observe the function of the valve (see information on the type label).

Devices with solder connection:

CAUTION!

Risk of overheating

- Disconnect solder connections from the valve during the soldering process.

5.4 Electrical connection of cable plug

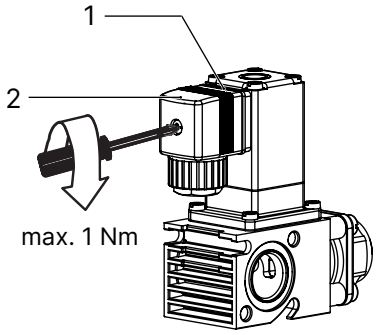
WARNING!

Risk of injury from electric shock

- Before reaching into the device or the system, switch off the power supply and secure to prevent reactivation!
- Observe the applicable accident prevention and safety regulations for electrical devices!
- Risk of electric shock if protective conductor not connected
  Always connect the protective conductor and check electrical continuity.

Approach:

- Screw in the cable plug (e.g. Type 2508 or other suitable cable plug), observing a maximum torque of 1 Nm.
- Check that the valve seal is correctly seated.
- Connect the protective conductor and check electrical continuity.



1 Seal	2 Approved cable plug, e.g. Type 2508 or other suitable cable plug in accordance with DIN EN 175301-803, form A

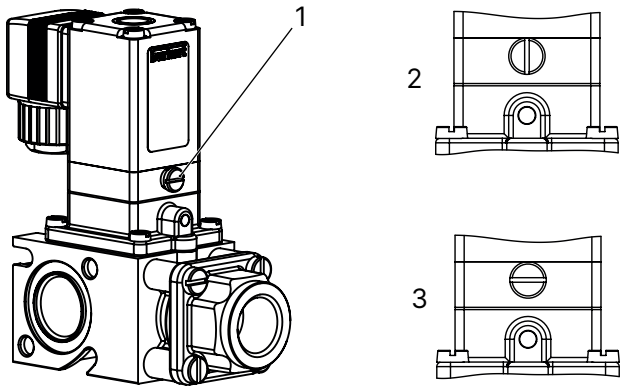
MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

5.5 Manual override HA15, optional

To manually override the valve, the control knob must be turned to a vertical position with a screwdriver.

NOTICE!

- Do not over-tighten the control knob.
- When the control knob is actuated, the valve can no longer be switched electrically.



1 Control knob	2 Manual override activated
3 Manual override not activated	

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

6 Maintenance, troubleshooting

6.1 Safety instructions

DANGER!

Risk of injury from high pressure in the system

- Before loosening lines or valves, switch off the pressure and vent the lines!

DANGER!

Risk of injury from electric shock

- Before reaching into the device or the system, switch off the power supply and secure it against reactivation.
- Observe the safety regulations for electrical devices.

WARNING!

Risk of injury due to improper maintenance work

- Maintenance must be carried out by authorised technicians using the appropriate tools!

WARNING!

Risk of injury from unintentional activation of the system and uncontrolled restart

- Secure the system against unintentional activation.
- Ensure a controlled restart after maintenance is completed.

6.2 Troubleshooting

If faults occur, check whether:

- the device is installed according to regulations,
- the electrical and fluid connections have been properly set up,
- the device is not damaged,
- all screws have been tightened,
- voltage and pressure have been applied,
- and the pipelines are clean.

Fault	Possible cause
Valve does not actuate	Short circuit or coil interrupted
	Operating pressure outside the permissible pressure range
	Core/core area contaminated
	Throttle bore in diaphragm contaminated
Valve does not close	Interior of the valve soiled

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

7 Spare parts

CAUTION!

Risk of injury and/or damage to property due to incorrect parts

Incorrect accessories and unsuitable spare parts may cause injuries and damage the device and the surrounding area.

- Use only original accessories and original spare parts from Bürkert.

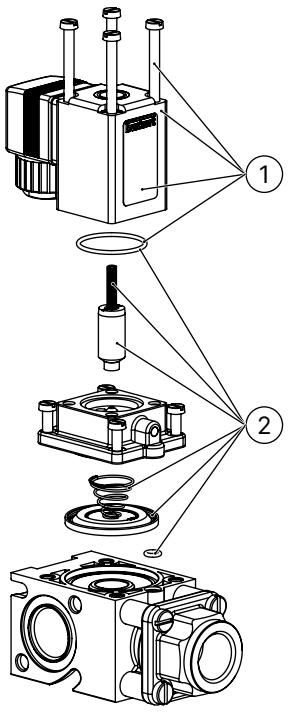
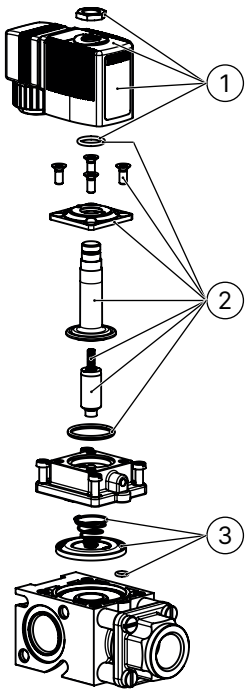
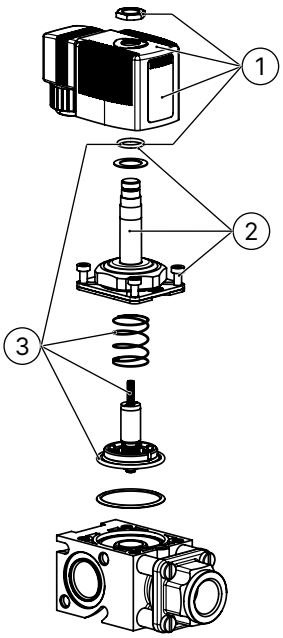
7.1 Ordering spare parts

The following spare parts for the solenoid valve Type 0287 are available:

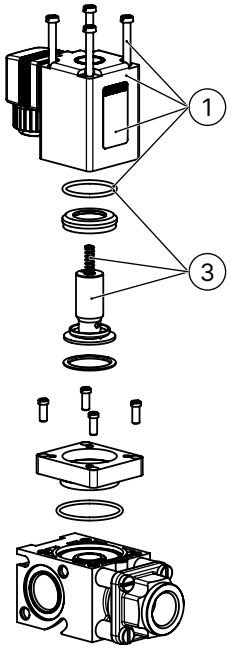
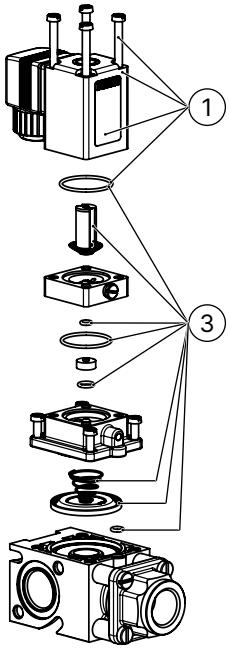
- Coil set (item 1)
- Wearing part set (item 2 and item 3)

Order the coil set or wearing part set under the identification number of the device.

7.2 Overview of spare parts

Standard	MT84 with over-plugged coil	MT05 core-diaphragm coupling with spring
		

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

MT08 core-diaphragm coupling with O-ring	HA15 with manual override
	

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025

8 Logistics

8.1 Transport and storage

- Protect the device against moisture and dirt in the original packaging during transportation and storage.
- Avoid UV radiation and direct sunlight.
- Protect connections, if present, from damage with protective caps.
- Observe the permitted storage temperature.

8.2 Return

No work or tests will be carried out on the device until a valid Contamination Declaration has been received.

- To return a used device to Bürkert, contact the Bürkert sales office. A return number is required.

8.3 Disposal

Environmentally friendly disposal

- Follow national regulations regarding disposal and the environment.
- Collect electrical and electronic devices separately and dispose of them as special waste.

Further information at country.burkert.com

MAN 1000313717 DE Version: C Status: RL (released | freigegeben) printed: 14.12.2025