bürkert
FLUID CONTROL SYSTEMS

MAN 1000682438 EN Version: - Status: RL (released | freigegeben) printed: 25.05.2026

Type 0498

Unlockable double check valve

Operating Instructions for all variants

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Technical documentation 2508/00_GBen_60041250_1085086859_1085260171 / Original DE

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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.

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1.2 Terms and abbreviations

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

Device	Unlockable double check valve Type 0498

1.3 Manufacturer

Bürkert Fluid Control Systems

Christian-Bürkert-Str. 13–17

74653 Ingelfingen

GERMANY

The contact addresses are available at Contact.

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2 Safety

2.1 Intended use

The device is designed to prevent the return flow of neutral gases.

Prerequisites for safe and trouble-free operation are proper transport, storage, installation, commissioning, operation and maintenance.

The instructions are part of the device. The device is intended exclusively for use within the scope of these instructions. Uses of the device that are not described in these instructions, the contractual documents or the type label can lead to severe personal injury or death, damage to the device or property and dangers for the surrounding area or the environment.

- Only trained and qualified personnel may install, operate and maintain the device. See qualification of persons in Safety instructions [▶ 6]
- Use the device only in conjunction with third-party devices and components recommended and authorized by Bürkert.
- Use the device only when it is in perfect condition.
- Only use the device indoors.
- Do not use the device in potentially explosive atmosphere.
- Do not open the device.
- Protect the device from environmental influences (e.g. radiation, humidity, vapours).

2.2 Safety instructions

Qualification of personnel working with the device

Improper use of the device can lead to serious personal injury or death. To avoid accidents when working with the device, the following minimum requirements must be met:

- Carry out work on the device within the scope of these instructions in a safety-compliant manner.
- Detect and avoid dangers when working on the device.
- Understand the instructions and implement the information contained therein accordingly.

Responsibility of the operator

The operator is responsible for observing the location-specific safety regulations, also in relation to personnel.

- Observe the general rules of technology.
- Install the device according to the regulations applicable in the respective country.
- The operator must make hazards arising from the location of the device avoidable by providing appropriate operating instructions.

Changes and other modifications, spare parts and accessories

Changes to the device, incorrect installation or use of non-approved devices or components create hazards that can lead to accidents and injuries.

- Do not make any changes to the device.

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- Do not mechanically load the device.
- Observe the operating instructions of the device or component used.
- Only use the devices in conjunction with devices and components recommended or approved by Bürkert.

Spare parts and accessories that do not meet Bürkert's requirements may impair the operational safety of the device and cause accidents.

- To ensure operational safety, only use original parts from Bürkert.

Operation only after proper transport, storage, installation, start-up or maintenance.

Improper transport, storage, installation, start-up or maintenance endanger the operational safety of the device and can cause accidents. This can lead to serious personal injury or death.

- Only carry out works which are described in these instructions.
- Only carry out works using suitable tools.
- Have all other works carried out by Bürkert only.

Technical limit values and media

Non-compliance with technical limit values or unsuitable media can damage the device and lead to leaks. This can cause accidents and seriously injure or kill people.

- Comply with limit values. See Technical data [▶ 12] and information on the type label.
- Only feed media into the media ports that are listed in the chapter Technical data [▶ 12].
- Observe the safety data sheet for the media used.

Medium under pressure

Medium under pressure can seriously injure people. In the event of overpressure or pressure surges, the device or lines can burst. Pneumatic lines that are defective or not securely fastened can come loose and swing around.

- Before working on the device or system, switch off the pressure. Vent or empty the lines.
- Adhere to the permitted pressure ranges of the medium.
- Comply with the permitted temperature ranges of the medium.

Working on the device

Working on the device before it has been powered down, unauthorised switching-on or unmonitored start-up of the system can cause accidents. This can lead to serious personal injury or death.

- Only work on the device when it is not in use.
- Ensure that the device or system cannot be switched on unintentionally.
- Following an interruption, restart the process in a controlled manner.

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3 Product description

The type 0498 double check valve is installed on the output side of a 5/3-way valve with open middle position (circuit function N) or on two 3/2-way valves (circuit function C). It is used to hold a double cylinder or a double-acting pneumatic linear piston actuator in an intermediate position for a longer period of time.

The valve contains 2 unlockable check valves that enable this intermediate position.

3.1 Product overview

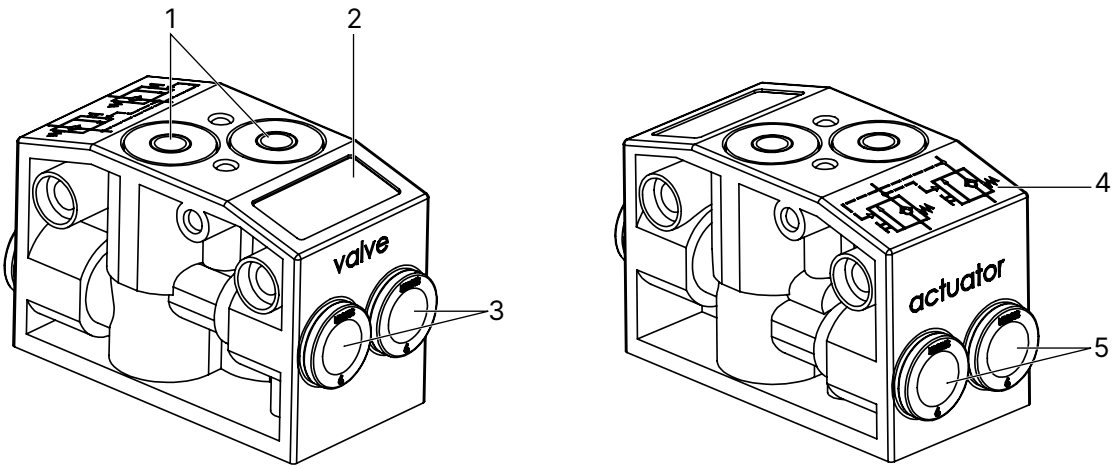

Fig. 1: Type 0498 double check valve product overview

1	Manual override options for cylinder venting	2	Type label
3	Pressure ports D6 or D1/4	4	Circuit symbol
5	Working ports D6 or D1/4		

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3.2 Functionality

In combination with two 3/2-way valves or one 5/3-way valve with open middle position, the actuator, e.g. a double cylinder, can be held in an intermediate position.

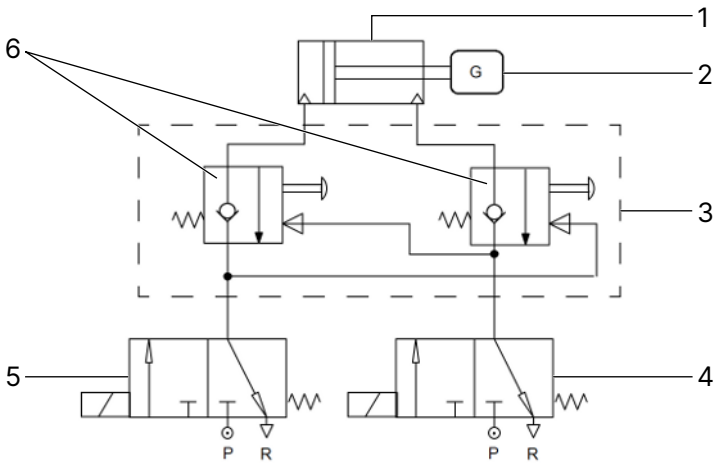

Fig. 2: Type 0498 double check valve in combination with 2 3/2-way valves and a double cylinder

1	Double cylinder	2	Weight
3	Type 0498 double check valve	4	3/2-way valve, circuit function C
5	3/2-way valve, circuit function C	6	Unlockable check valves

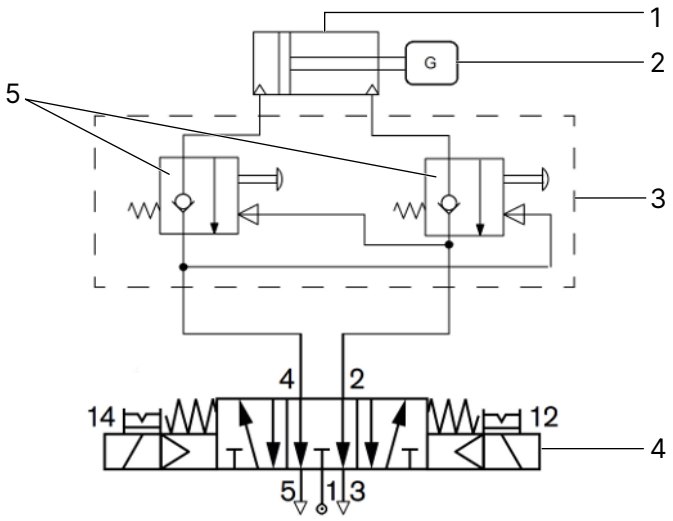

Fig. 3: Type 0498 double check valve in combination with a 5/3-way valve and a double cylinder

1	Double cylinder	2	Weight
3	Type 0498 double check valve	4	5/3-way valve, circuit function N
5	Unlockable check valves		

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In combination with a monostable 5/2-way valve (type 6519, circuit function H) or with a bistable 5/2-way valve (type 6519, circuit function Z or pulse valve), the double check valve can be used to prevent a double cylinder from being reset when the supply pressure fails.

In the event of a supply pressure failure, the double cylinder remains in the end position.

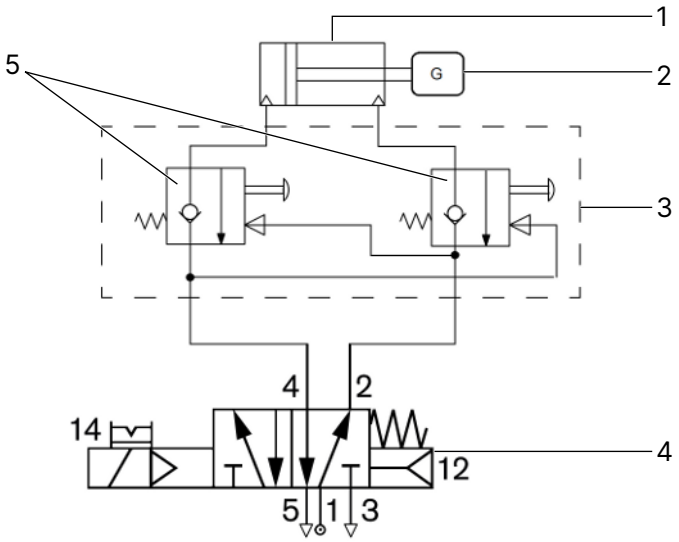
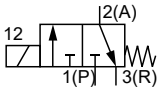
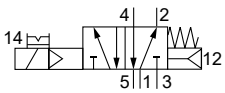
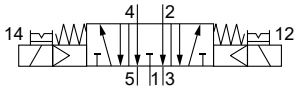
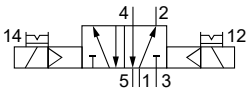


Fig. 4: Type 0498 double check valve in combination with a 5/2-way valve and a double cylinder

1	Double cylinder	2	Weight
3	Type 0498 double check valve	4	Type 6519 5/2-way valve CF H
5	Unlockable check valves		

3.3 Circuit function

	**Circuit function C (CF C), NC** 3/2-way solenoid valve, direct-acting Normally closed
	**Circuit function H (CF H)** 5/2-way solenoid valve, pilot-operated, with manual override Pressurisation via working port (1), therefore one of the two ports (2) or (4) is under pressure.
	**Circuit function N (CF N)** 5/3-way solenoid valve, with manual override In central position, ports 2 and 4 vented
	**Circuit function Z (CF Z)** 5/2-way solenoid valve, with manual override Impulse variant with 2 coils and manual override Pressurisation via working port (1), i.e. one of the two ports (2) or (4) is under pressure.

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3.4 Type label

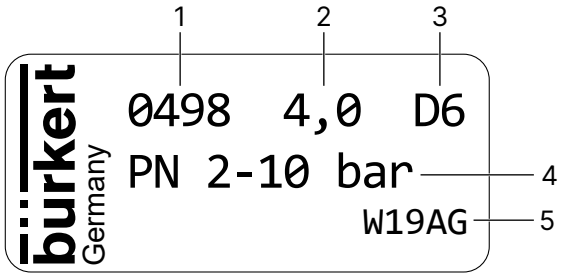

Fig. 5: Type label for type 0498 double check valve (example)

1	Type	2	Orifice
3	Port connection	4	Operating pressure
5	Manufacture code		

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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

Altitude	Up to 2000 m above sea level
Medium	Dry compressed air, oiled or oil-free, neutral gases (5 µm filter recommended)
Medium temperature	−10...+50 °C
Ambient temperature	−10...+55 °C
Installation position	Any
Air flow rate (Q_p)	300 l/min (Measurement at +20°C, 6 bar pressure at the valve inlet and 1 bar pressure difference)
Operating pressure	2...10 bar
Pressure data	Overpressure to atmospheric pressure
Port connection	Push-in connector D6 or D14

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5 Installation

Risk of injury or material damage when working on the device or system.

- Read and observe the chapter Safety [▶ 6] before working on the device or system.

5.1 Standard rail adapter

A standard rail adapter for attachment is available as an accessory.

For the standard rail adapter's order number, see the type 0498 data sheet.

5.2 Installing double check valve

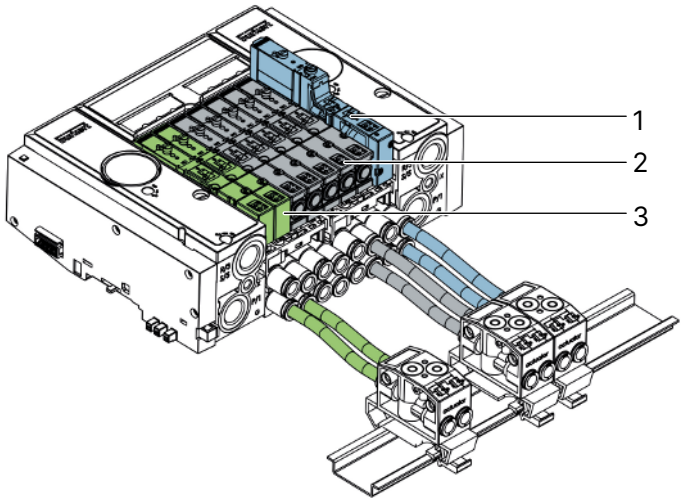

Fig. 6: Example for connecting various solenoid valves to a double check valve

1	Type 6524 (2x3/2-way valve, normally closed)	2	Type 6525 (5/2-way valve)
3	3/2-way valve, NC		

- Double check valve with standard rail adapter for mounting on standard rail or with side mounting holes (screws M2.5 x 28).
- Connect the valve to the double check valve using a pneumatic hose.

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6 Commissioning

Risk of injury or material damage when working on the device or system.

- Read and observe the chapter Safety [▶ 6] before working on the device or system.

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7 Troubleshooting

7.1 Double cylinder does not remain in end position

Cause	Solution
Compressed air leaks in the line between the valve and the double cylinder or at the plug connections.	▸ Check the lines and seals between the valve and the double cylinder for leaks.

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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 from damage with protective caps.
- Observe 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

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