bürkert
FLUID CONTROL SYSTEMS

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

Type 0460

Operating Instructions for all variants

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

Technical documentation 2507/00_GBen_60040561_921258635_18014399430777739 / Original DE

Table of contents

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

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 Document validity

The document is valid for following device version:

The device version is indicated on the type label.

1.2 Manufacturer

Bürkert Fluid Control Systems

Christian-Bürkert-Str. 13–17

74653 Ingelfingen

GERMANY

The contact addresses are available at Contact.

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1.3 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.

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

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 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

1.4 Terms and abbreviations

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

Device	5/2- pulse valve or 5/3-pneumatic valve
bar	Unit for relative pressure

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

2 Safety

2.1 Intended use

The device is designed to control the flow of media. The permissible media are listed in chapter Technical data [▶ 12]

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.

- Do not use the device outdoors.
- Do not mechanically load the device.
- Only trained and qualified personnel may install, operate and maintain the device. See qualification of persons in Safety instructions [▶ 7]
- 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.

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.
- Do not mechanically load the device.

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

- Observe the operating instructions of the device or component used.
- Only use the devices in conjunction with approved devices or components.

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.

Electric shock due to electrical components

Touching live parts can result in severe electric shock. This can lead to serious personal injury or death.

- Before working on the device or system, switch off the power supply. Secure it against reactivation.
- Observe any applicable accident prevention and safety regulations for electrical devices.

Hot surfaces and fire hazard

The surface of the device can become hot with fast-switching actuators or with hot media.

- Wear suitable protective gloves.
- Keep highly flammable substances and media away from the device.

Working on the device

Working on the device that has not been powered down, unauthorised switching on or uncontrolled 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.

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

- Ensure that the device or system cannot be switched on unintentionally.
- Only start the process in a controlled manner following disruptions. Observe sequence:
  1. Apply supply voltage or pneumatic supply.
  2. Charge the device with medium.

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

If the core sticks, the solenoid will overheat and cause the valve to malfunction.

- Monitor valve function.

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

3 Product description

3.1 Product structure

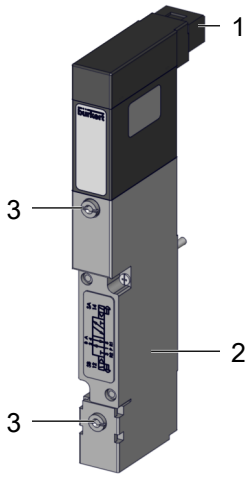


Fig. 1: Example: 5/2-way pulse valve, Type 0460

1	Electrical connection	2	5/2-way pulse valve / 5/3-way pneumatic valve
3	Manual override	3	Manual override

3.2 Product identification

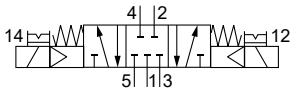
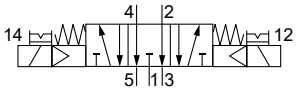
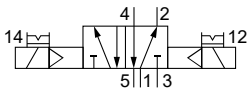
3.2.1 Type label

Fig. 2: Type label 0460 (example)

1	Type/Circuit function/Nominal diameter/Seal material	2	Nominal power
3	Production date (4 digits)	4	Operating voltage
5	Article number	6	Operating pressure

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

3.3 Circuit function

Icon	Description
	**Circuit function L (CF L)** 5/3-way solenoid valve, with manual override All connections blocked in the central position
	**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.

Tab. 1: Circuit function

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

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 Approvals

Approvals and conformities are only valid if the labelling is on the device.

Labelling on device	Certification
CE	The device is CE-compliant.

Tab. 2: Approvals

4.3 Operating conditions

Medium temperature	+5...+50 °C
Ambient temperature	Max. +50 °C

4.4 Pneumatic data

Pressure range	2–7 bar

4.5 Electrical data

Power consumption	0.4 W
Operating voltage	24 V ⎓ ±10 %

4.6 Mechanical data

Housing	Aluminium
Seal	NBR

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

5 Installation

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

- Read and observe the chapter Safety [▶ 7] before working on the device or system.

5.1 Preparatory work

- Fit a dirt trap on a dirty medium before the valve inlet (5 µm).

Any installation position, preferably actuator face up.

- Check pipelines for soiling and clean if required.

5.2 Install valve

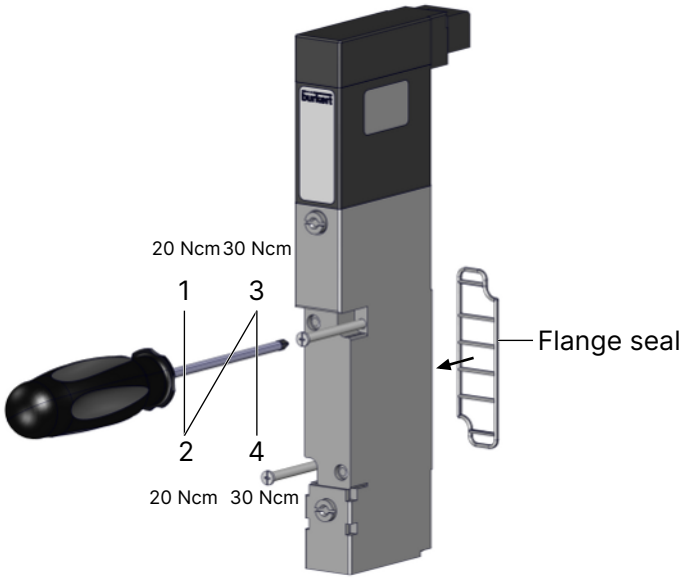


Fig. 3: Installation

- Tighten the screws to 20 Ncm.
- Tighten the screws again to 30 Ncm.

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

5.3 Manual override

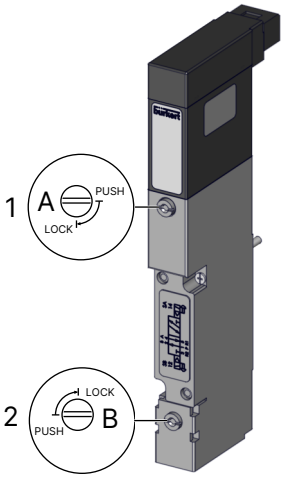
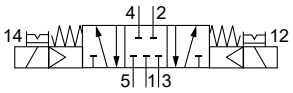
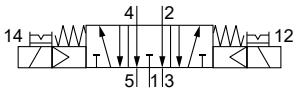
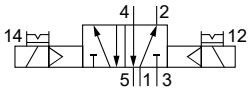


Fig. 4: Manual override

1	A – Manual override for port 2 (A)	2	B – Manual override for port 4 (B)

NOTICE!

If both manual overrides are actuated simultaneously, the valve remains in a switched state. Make sure that the manual override lock is released to prevent malfunctions.

Circuit function	Manual override position		Functional diagram
L	A, B	Auto	
	B lock	1/P > 2/B 4/A > 5/R1	
	A lock	1/P > 4/A 2/B > 3/R2	
N	A, B	Auto	
	B lock	1/P > 2/B 4/A > 5/R1	
	A lock	1/P > 4/A 2/B > 3/R2	
Z	A, B	Auto	
	B lock	1/P > 2/B 4/A > 5/R1	
	A lock	1/P > 4/A 2/B > 3/R2	

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

6 Medium port

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

- Read and observe the chapter Safety [▶ 7] before working on the device or system.

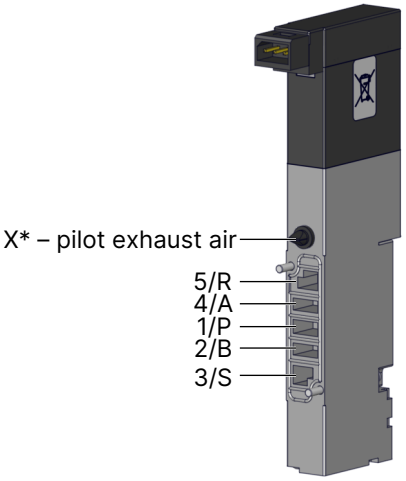


Fig. 5: Medium port

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

7 Electrical connection

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

- Read and observe the chapter Safety [▶ 7] before working on the device or system.

The polarity when connecting the rectangular plug does not affect the function of the valve and can be selected as required.

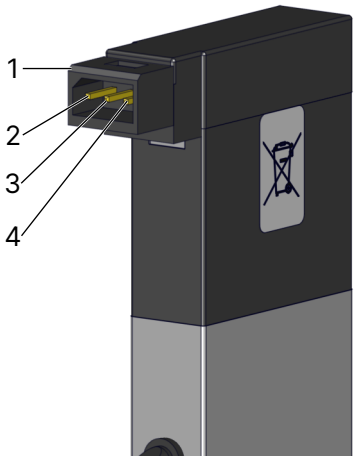
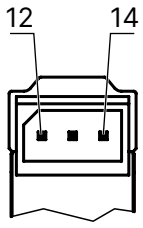


Fig. 6: Electrical connection

1	Rectangular plug	2	Pole coil 12 controlled via bit “n+1”
3	Common pole	4	Pole coil 14 controlled via bit “n”

7.1 Pin assignment

Rectangular plug


Tab. 3: Pin assignment 0460

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

8 Start-up

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

- Read and observe the chapter Safety [▶ 7] before working on the device or system.

- Switch on the compressed air supply.
- Switch on the power supply.

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

9 Faults

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

- Read and observe the chapter Safety [▶ 7] before working on the device or system.

If faults occur, check whether

- the device has been installed according to regulations
- the connection has been properly made
- the device has been damaged
- all screws have been tightened
- voltage and pressure have been applied
- the pipes are clean

If the valve still does not switch, contact Bürkert Service.

MAN 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026

10 Logistics

10.1 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.

10.2 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.

10.3 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 1000680375 EN Version: A Status: RL (released | freigegeben) printed: 25.05.2026