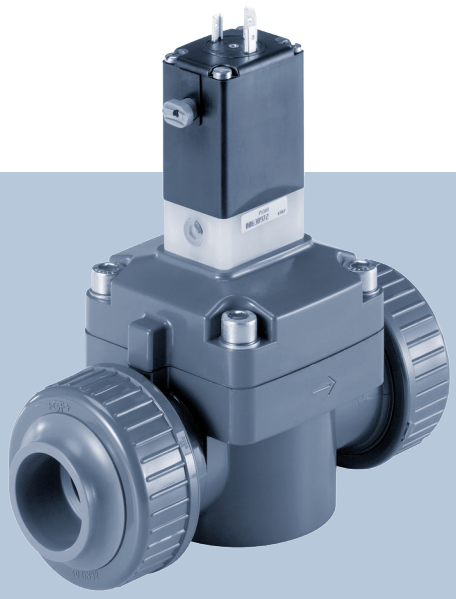
bürkert
FLUID CONTROL SYSTEMS

MAN 1000339920 EN Version: D Status: RL (released | freigegeben) printed: 21.01.2026

Type 0142

2/2-way solenoid valve



Operating Instructions

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Technical documentation 2507/07_GBen_00893140_953247243_9007200208148491 / 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.

Product	Solenoid valve Type 0142

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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- Explore the full range of products on our eShop.

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2 Safety

2.1 Intended use

Unauthorised use of the Type 0142 solenoid valve may be dangerous to people, nearby equipment and the environment.

- The device is designed for controlling, shutting off and dosing neutral and aggressive media with a viscosity of up to 21 mm^2/s.
- With a properly connected and assembled cable plug, e.g. Bürkert Type 2508, the device complies with IP65 degree of protection 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 (see Technical data).
- Prerequisites for safe and trouble-free operation include correct transport, 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 from high pressure!

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

Danger due to electrical voltage!

- 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 burns/fire due to hot device surface during continuous operation!

- 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 causes the coil to overheat, which leads to functional failure.

- Check the working process for proper function.

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

- Make sure the seal is properly seated.
- Screw valve and connection cables together carefully.

To prevent injuries/damage, observe the following:

- Do not make any internal or external modifications to Type 0142. Secure the system/device against unintentional activation.

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- 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.
- Observe general technological rules of thumb.

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3 Technical data

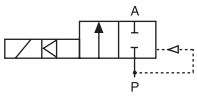
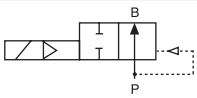
3.1 Operating conditions

The following values are indicated on the type label (see Type label [▶ 9]):

- Voltage (tolerance ± 10%) / current type
- Coil power (active power in W – at operating temperature)
- Pressure range
- Body material: PVC (PV) or PVDF (PD)
- Seal material: FKM, EPDM

Degree of protection	IP65 according to DIN EN 60529/IEC 60529 with correctly connected and installed cable plug, e.g. Bürkert Type 2508
Storage temperature	PVC: -10 °C to +50 °C PVDF: -10 °C to +70 °C

Circuit functions

A (NC)		2/2-way valve, normally closed
B (NO)		2/2-way valve, normally open

3.2 Usage conditions

Ambient temperature	PVC 0 °C to +40 °C PVDF 0 °C to +55 °C
Permitted medium temperature	PVC: 0 °C to 50 °C PVDF: 0 °C to +70 °C

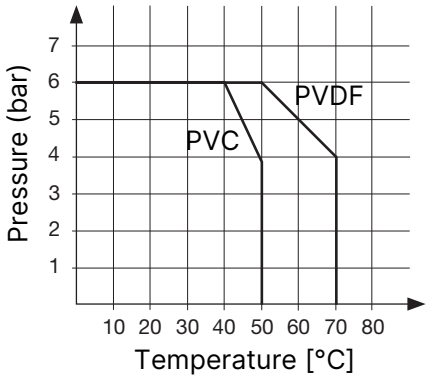


Fig. 1: Pressure-temperature diagram for PVC and PVDF

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Permitted media	FKM: Oxidising acids and substances, water EPDM: alkalis, alkaline washing and bleaching lyes, water, oil- and grease-free media
Operating duration	Unless otherwise specified on the type label, the solenoid actuator is suitable for continuous operation.
Service life	High switching frequency and high pressure will reduce overall service life.

Important information to ensure functional reliability during continuous operation! During a long period of downtime at least 1–2 switching operations per day are recommended.

3.3 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

3.4 Type label

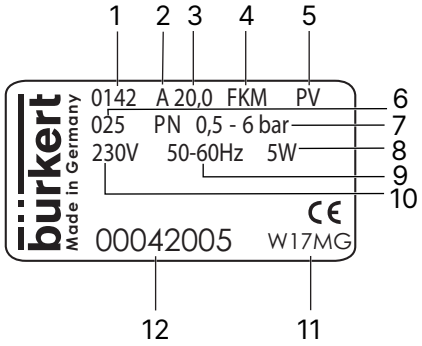

Fig. 2: Type label

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

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4 Installation

4.1 Safety instructions

DANGER!

Risk of injury from high pressure in the system

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

DANGER!

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!

WARNING!

Risk of injury due to improper installation

- Installation may only be performed by authorised technicians and with the appropriate tools.

WARNING!

Risk of injury due to unintentional activation of the system and uncontrolled restart.

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

4.2 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 (≤ 500 µm).

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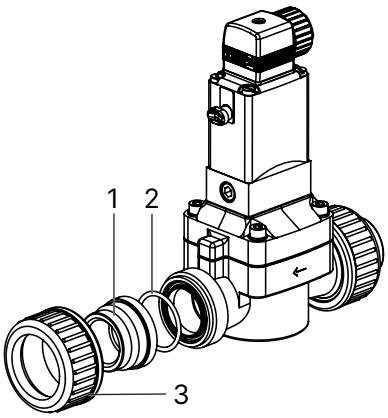
4.3 Installation



1	Insert	2	Insert the O-ring
3	Tighten the cap nut evenly by hand only		

NOTICE!

Breaking hazard

- Do not use the coil as a lever arm.

Body with welding socket

- Use PVDF.

Body with adhesive sleeves

- Use Tangit special adhesive.

The valve body must not be installed under tension.

- Note flow direction: The arrow on the body indicates the flow direction (no function in opposite flow direction).

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4.4 Manual override

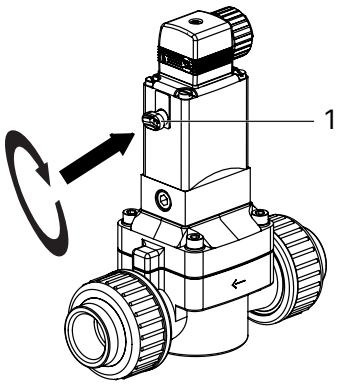
CAUTION!

Escaping medium due to loss of O-rings

Loss of the O-rings leads to valve leak. Medium may escape!

Only press the manual override when the power is off.

- To override the valve manually, press the manual override and turn it 90° clockwise until it stops.



1 Manual override

4.5 Electrical connection of cable plug

WARNING!

Risk of injury from electric shock

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

WARNING!

If there is no protective conductor function between the coil and the housing, there is a risk of electric shock

- Always connect the protective conductor.
- Check electrical continuity between the coil and the housing.

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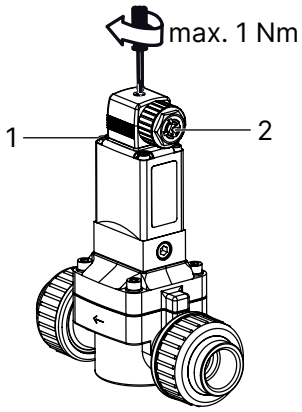

1 Seal	2 Approved cable plug, e.g. Type 2508 or other suitable cable plug in accordance with DIN EN 175301-803 Form A

Observe voltage and current type according to type label.

Approach

- Screw cable plug tight (for approved types see data sheet), ensuring a maximum torque of 1 Nm.
- Check that the seal is correctly fitted.
- Connect protective conductor and check electrical continuity between coil and housing.

4.5.1 Electrical connection – impulse

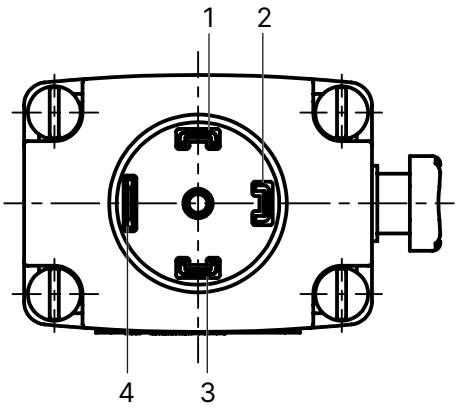

Fig. 3: Working ports for DC

1 Terminal 1 = open +	2 Terminal 2 = GND -
3 Terminal 3 = closed +	4 Protective conductor connection

The connection terminals in the cable plug are identified with the numerals 1 to 3 according to the terminals on the valve.

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Approach

- Connect pulse valves (variable code CF 02).
- For DC voltage variants, connect the negative pole to terminal 2.

NOTICE!

- Avoid impulses being simultaneously generated on both coil windings.
- No additional loads (such as relays or similar devices) must be connected in parallel to the terminals.
- The coil connection that is not under voltage must remain galvanically isolated (i.e. open).
- If two or more valves are switched in parallel, ensure that this requirement is met by using bipolar or multipolar switches.

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5 Maintenance, troubleshooting

5.1 Safety instructions

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 due to unintentional activation of the system and uncontrolled restart

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

5.2 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 permitted pressure range
	Manual override locked
Valve does not close	Interior of the valve soiled
	Manual override locked
	Contamination in the restrictor at the valve inlet or in the pilot bore holes (valve inlet/outlet)

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6 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.

6.1 Ordering spare parts

- Order the spare parts kits, quoting the position numbers (Item 1: Pilot valve kit, Item 2: Wearing part set) and the order number of the device.

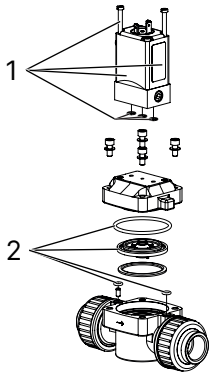

Fig. 4: Item nos of spare parts kits

1	Pilot valve kit	2	Wearing part set

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7 Logistics

7.1 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.

7.2 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.

7.3 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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