

Type 0293

2/2-way solenoid valve
2/2-Wege Magnetventil
Electrovanne 2/2 voies



We reserve the right to make technical changes without notice.

Technische Änderungen vorbehalten.

Sous réserve de modifications techniques.

www.burkert.com

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Operating Instructions 1107/04_EU-ml_00805786 / Original DE

Operating Instructions

Bedienungsanleitung
Manuel d'utilisation

1. OPERATING INSTRUCTIONS

The operating instructions describe the entire life cycle of the device. Keep these instructions in a location which is easily accessible to every user and make these instructions available to every new owner of the device.

The operating instructions contain important safety information!

Failure to observe these instructions may result in hazardous situations.

- The operating instructions must be read and understood.

2. SYMBOLS

The following symbols are used in these instructions.

DANGER!

Warns of an immediate danger!

- Failure to observe the warning may result in a fatal or serious injury.

WARNING!

Warns of a potentially dangerous situation!

- Failure to observe the warning may result in a serious or fatal injury.


CAUTION!

Warns of a possible danger!

- Failure to observe this warning may result in a medium or minor injury.

NOTE!

Warns of damage to property!

-  Important tips and recommendations.

→ designates a procedure which you must carry out.

3. AUTHORIZED USE

Incorrect use of the solenoid valve Type 0293 can be dangerous to people, nearby equipment and the environment.

- The device is designed for dosing, blocking, filling and aerating media.
- The device is classified in accordance with DIN EN 161 Group 2, Class A for gas.
- Use according to the permitted data, operating conditions and conditions of use specified in the contract documents and operating instructions. These are described in the chapter entitled "Technical Data".
- The device may be used only in conjunction with third-party devices and components recommended and authorised by Bürkert.
- Correct transportation, correct storage and installation and careful use and maintenance are essential for reliable and problem-free operation.
- Use the device only as intended.

3.1. Predictable misuse

- Do not physically stress the device (e.g. by placing objects on it, using it as a screwing aid, standing on it or using it as a lever arm).
- Do not make any external modifications to the device housings. Do not paint the housing parts or screws.

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4. BASIC SAFETY INSTRUCTIONS

These safety instructions do not make allowance for any:

- Contingencies and events which may arise during the installation, operation and maintenance of the devices.
- Local safety regulations – the operator is responsible for observing these regulations, also with reference to the installation personnel.



DANGER!

Danger – high pressure!

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

Risk of electric shock!

- Before reaching into the device, switch off the power supply and secure to prevent reactivation!
- Observe applicable accident prevention and safety regulations for electrical equipment!

Risk of burns/Risk of fire if used continuously through hot device surface!

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

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CAUTION!

Risk of injury due to malfunction of valves with alternating current (AC).

Sticking core causes coil to overheat, resulting in a malfunction.

- Monitor process to ensure function is in perfect working order!



General hazardous situations.

To prevent injury, ensure that:

- The system cannot be activated unintentionally.
- Installation and repair work may be carried out by authorized technicians only and with the appropriate tools.
- After an interruption in the power supply or pneumatic supply, ensure that the process is restarted in a defined or controlled manner.
- The device may be operated only when in perfect condition and in consideration of the operating instructions.
- The general rules of technology apply to application planning and operation of the device.

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5. GENERAL INFORMATION

5.1. Contact address

Germany

Bürkert Fluid Control Systems
 Sales Center
 Christian-Bürkert-Str. 13-17
 D-74653 Ingelfingen
 Tel. + 49 (0) 7940 - 10 91 111
 Fax + 49 (0) 7940 - 10 91 448
 E-mail: info@de.buerkert.com

International

Contact addresses can be found on the final pages of these operating instructions.

And also on the internet at: www.burkert.com

5.2. Warranty

The warranty is only valid if the device is used as authorized in accordance with the specified application conditions.

5.3. Information on the Internet

The operating instructions and data sheets for Type 0293 can be found on the Internet at: www.burkert.com

6. TECHNICAL DATA

6.1. Operating conditions

Permitted medium and ambient temperature: -15 ... +60 °C
 Max. operating pressure: 0.15 bar

Permitted media depending on seal material:

Seal material	Permitted media
NBR	Valve group 2, Class A: Fuel gases of the 1st, 2nd and 3rd gas family.

Protection class: IP65 in accordance with device socket

6.2. Conformity

The device conforms to the EC directives according to the EC Declaration of Conformity.

6.3. Standards

The conformity with EC guidelines is guaranteed in accordance with standards:

- EN 61010-1, EN 50178, EN 60664-1, EN 60204-1, EN 161

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6.4. Dirt trap

The necessary dirt trap is integrated into the valve.

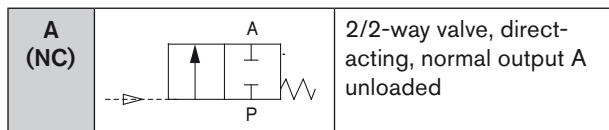


6.5. Mechanical Data

Dimensions see data sheet
 Body material Brass
 Sealing material NBR

6.6. Fluidic Data

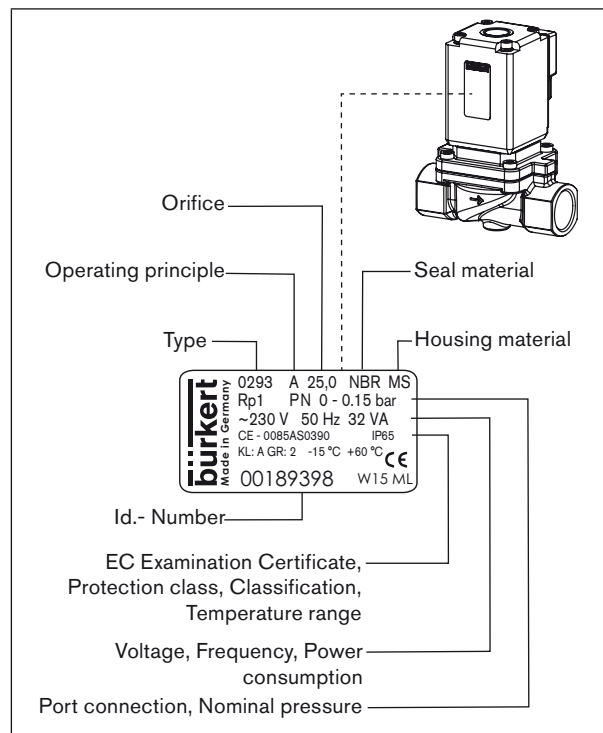
Circuit functions



Pressure range according to the design (see rating plate)

! Note the voltage and current type as specified on the rating plate.

6.7. Rating plate



6.8. Electrical Data

Connections	DIN EN 175301-803 Form A for device socket Type 2508
Power supply	220 - 230 V / 50 Hz 220 V UC / 0 - 60 Hz
Voltage tolerance	± 10 %
Nominal operating mode	long-term operation, ED 100 %

! Note the voltage and current type as specified on the rating plate.

7. INSTALLATION

7.1. Safety instructions



DANGER!

Risk of injury from high pressure in the equipment!

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

Risk of injury due to electrical shock!

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



WARNING!

Risk of injury from improper installation!

- Installation may be carried out by authorized technicians only and with the appropriate tools!

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

- Secure system from unintentional activation.
- Following installation, ensure a controlled restart.

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7.2. Fluid installation



DANGER!

Risk of injury from high pressure in the equipment!

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

Installation position:

Installation can be in any position.
Preferably: Actuator upright.

Procedure:

→ Before installation, clean any possible dirt off the pipelines.



WARNING!

Risk of short-circuit or escape of media through leaking screw joints!

- Ensure seals are seated correctly!
- Carefully screw together coil and device socket or valve and pipelines!



Observe direction of flow of the valve (Fig. 1):
1 → 2 (P → A).

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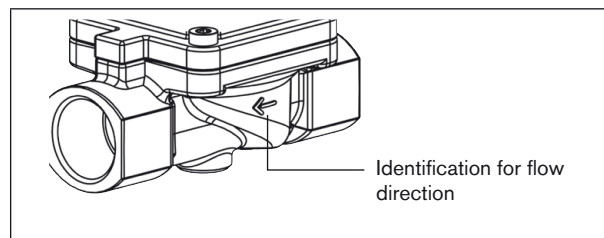


Fig. 1: Housing with identification of flow direction

→ Seal the pipe connection with PTFE tape.



The PTFE tape must not get into the device.

NOTE!

Caution risk of breakage!

- Do not use the coil as a lever arm.

→ Hold the device with a suitable tool (Open-end wrench) on the housing and screw into the pipeline.

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7.3. Electrical installation



DANGER!

Risk of injury due to electrical shock!

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

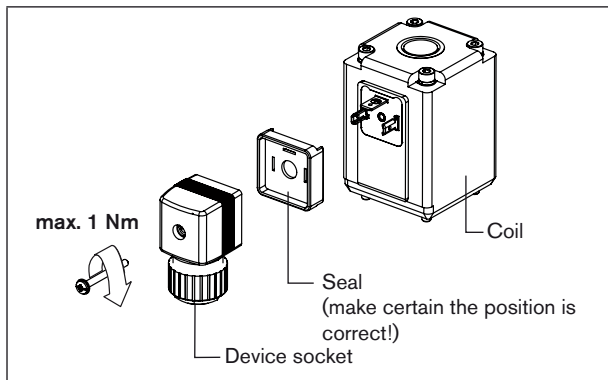


Fig. 2: Electrical installation



WARNING!

Danger of electrical shock if the protective conductor contact between the coil and housing is missing!

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

Risk of short-circuit or escape of media through leaking screw joints.

- Ensure seals are seated correctly!
- Carefully screw together coil and device socket or valve and pipelines!



CAUTION!

Risk of injury due to malfunction of valves with alternating current (AC).

Sticking core causes coil to overheat, resulting in a malfunction.

- Monitor process to ensure function is in perfect working order!



Note the voltage and current type as specified on the rating plate.

8. MAINTENANCE, TROUBLESHOOTING

8.1. Safety Instructions



DANGER!

Risk of injury from high pressure in the equipment!

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

Risk of injury due to electrical shock!

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



WARNING!

Risk of injury from improper maintenance!

- Maintenance may be carried out by authorized technicians only and with the appropriate tools!

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

- Secure system from unintentional activation.
- Following maintenance, ensure a controlled restart.

8.2. Malfunctions

Malfunctions

If malfunctions occur, check whether:

- the device has been installed according to the instructions,
- the connections are correct,
- the device is not damaged,
- all screws have been tightened,
- the voltage and pressure have been switched on,
- the pipelines are clean.

If the magnet does not pick up, ensure that:

- there is no short-circuit or coil interruption,
- the core / core area is not dirty.

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

9. SPARE PARTS



CAUTION!

Risk of injury and/or damage by the use of 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.

9.1. Spare part sets

When ordering replacement parts and replacement part sets, please specify:

- Order the coil by quoting the identification number of the device,
- Wearing parts sets SET 3, seal sets SET 2 and housing.

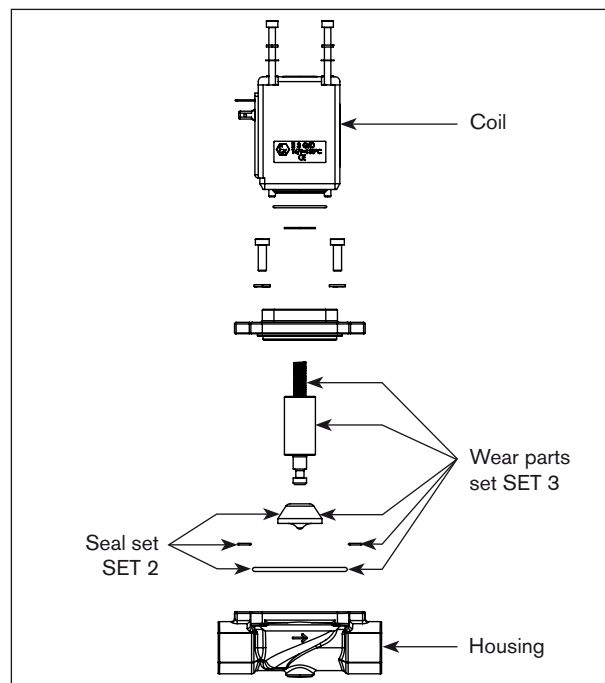


Fig. 3: Overview of replacement spare parts

10. TRANSPORT, STORAGE, DISPOSAL

NOTE!

Transport damages!

Inadequately protected equipment may be damaged during transport.

- During transportation protect the device against wet and dirt in shock-resistant packaging.
- Avoid exceeding or dropping below the allowable storage temperature.

Incorrect storage may damage the device.

- Store the device in a dry and dust-free location!
- Storage temperature: -40 ... +55 °C.

Damage to the environment caused by device components contaminated with media.

- Observe applicable regulations on disposal and the environment.
- Dispose of the device and packaging in an environmentally friendly manner.