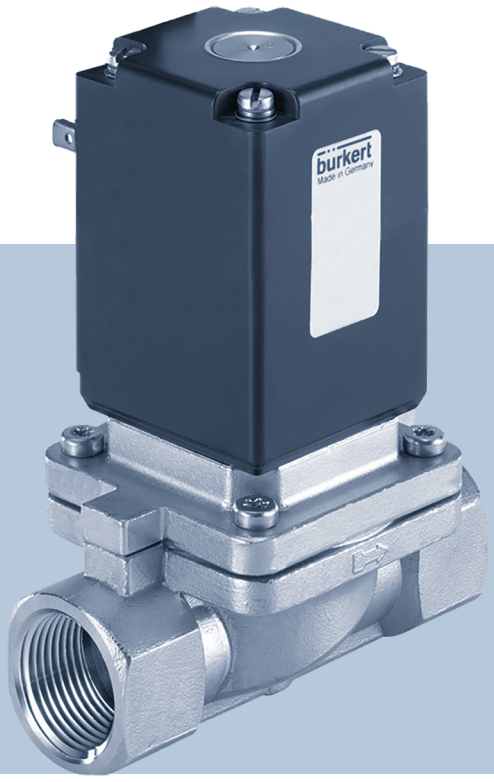
bürkert
FLUID CONTROL SYSTEMS

MAN 1000317462 EN Version: B Status: RL (released | freigegeben) printed: 09.05.2026

Type 0283-0293

2/2-way solenoid valve



Operating Instructions

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Technical documentation 2511/10_GBen_00805786_1213419787_1213498891 / 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 0283 or Type 0293

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

Solenoid valve Type 0283 and Type 0293 is designed for dosing, blocking, filling and venting media. Type 0293 is classified for gas in accordance with DIN EN 161 Group 2, Class B.

- When using the device, observe the authorised data, and the operating and usage conditions specified in the contract documents and in the operating instructions. These are described in the Technical data [▶ 8].
- With a properly connected and assembled cable plug, the device complies with degree of protection IP65 in accordance with DIN EN 60529 / IEC 60529.

The device

- must not be subjected to mechanical loads (e.g. by placing objects on the device to help assembly, as a step or as a lever arm).
- must only be used in conjunction with third-party devices and components recommended or approved by Bürkert.
- must only be used in perfect condition, with proper storage, transportation, installation and operation ensured at all times.
- Use only as intended.

2.2 Basic safety instructions

These safety instructions do not take into account any incidents or events that may occur during installation, operation or maintenance.

Risk of injury due to high pressure in the system or device

- Before working on the system or device, switch off the pressure and vent or empty the lines.

Risk of injury from electric shock

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

Risk of burns or fire from hot device surfaces due to prolonged activation time

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.

General dangerous situations

To prevent injuries, observe the following:

- The system cannot be activated unintentionally.

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- Installation and maintenance tasks must always be performed by authorised technicians, using the appropriate tools.
- The process must be restarted in a defined or controlled manner after an interruption in the power supply or pneumatic supply.
- The device may only be operated in perfect condition and in accordance with the operating instructions.
- The general rules of technology apply to application planning and operation of the device.
- Do not make any changes to the devices. Do not paint housing parts or screws.

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3 Technical data

3.1 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

3.2 Type label (example)

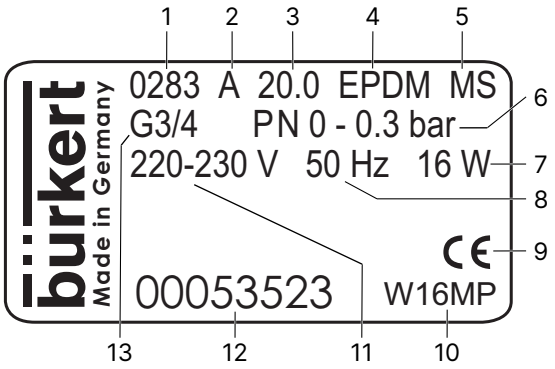

Fig. 1: Example of a type label for solenoid valve Type 0283

1	Type	2	Circuit function
3	Orifice	4	Sealing material
5	Body material	6	Pressure range
7	Power	8	Frequency
9	CE marking	10	Serial number
11	Voltage	12	Article number
13	Port connection		

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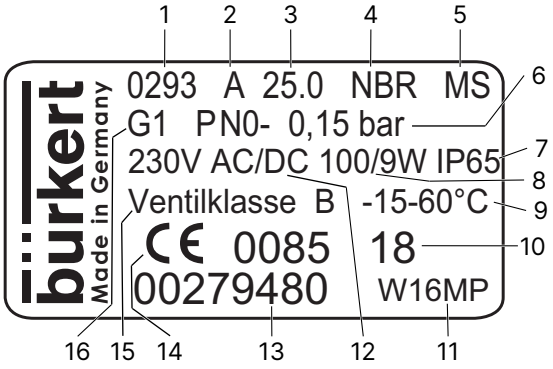


Fig. 2: Example of a type label for solenoid valve Type 0293

1	Type	2	Circuit function
3	Orifice	4	Sealing material
5	Body material	6	Pressure range
7	Degree of protection	8	Power
9	Permitted temperature range	10	EU type examination product ID number
11	Serial number	12	Voltage + current type
13	Article number	14	CE marking
15	Valve class	16	Port connection

3.3 Degree of protection

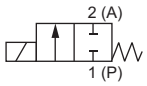
With a properly connected and assembled cable plug in accordance with DIN EN 175301-803, form A, the device complies with degree of protection IP65 in accordance with DIN EN 60529 / IEC 60529.

Type 0283 and Type 0293: Cable plug, e.g. Bürkert Type 2508

3.4 Operating conditions

Observe the values specified on the type label when operating the device.

Direct-acting 2/2-way solenoid valve circuit function:

A (NC)		Closed by spring force in rest position.

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Type	Seal material	Permitted media
0283	NBR	Neutral media, compressed air, water, hydraulic oil
	FKM	Per solutions, hot oils
	EPDM	Oil and grease-free media, e.g. hot water
0293	NBR	Valve group 2, class B: Combustible gases of the 1st, 2nd and 3rd gas families

Tab. 1: Permitted media

Type	Seal material	Permitted media temperature	Permitted ambient temperature[1)]
0283	NBR	–10...+90 °C	max. 55 °C
	FKM	–0...+100 °C	
	EPDM	–30...+100 °C	
0293	NBR	–15...80 °C	–15...+60 °C

Tab. 2: Permitted medium temperature and ambient temperature

Storage temperature	–40...+55 °C

Service life

High switching frequency and high pressure will reduce the solenoid valve's overall service life

3.5 Electrical data

Observe the voltage and current type according to the type label.

Connection:	Typ 0283 and Typ 0293: DIN EN 175301-803, form A for cable plug Type 2508
Power supply	see type label
Voltage tolerance	±10%
Switching frequency	AC max. 150/min

1) For variants with high-performance electronics (type label specification: current type AC/DC), also observe Electrical data [▶ 10].

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Electrical operating conditions

	With AC/DC high-performance electronics	Without electronics assemblies 50 Hz, 60 Hz
Ambient temperature (for intermittent operation, see the following image)	Maximum +70 °C	Maximum +55 °C
Operating mode (acc. to DIN VDE 0580)	Continuous operation (for determining the permissible operating parameters, see the image below)	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 AC/DC high-performance electronics

Characteristic values (acc. to DIN VDE 0580)

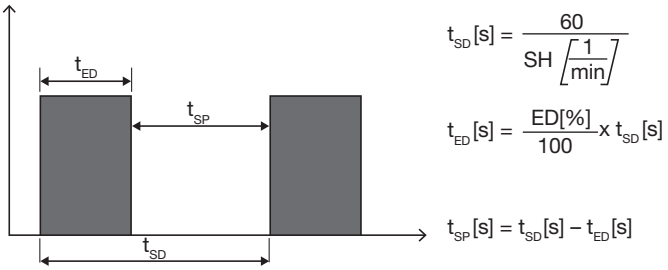

Fig. 3: Intermittent operation characteristics for variant with AC/DC high-performance electronics

t_{SD}	Cycle time	Duty cycle	Relative duty cycle
t_{ED}	Duty cycle	SH	Switching frequency
t_{SP}	Currentless break		

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Permissible operating parameters

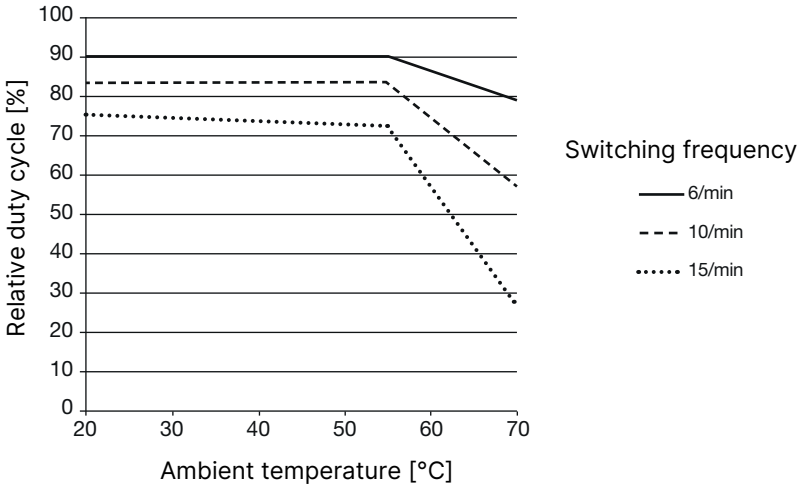

Fig. 4: Relative duty cycle dependent upon switching frequency and ambient temperature

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4 Installation

4.1 Safety instructions

DANGER!

Risk of injury due to high pressure in the system or device

- Before working on the system or device, switch off the pressure and vent or empty the lines.

DANGER!

Risk of injury from electric shock

- Before working on the system or device, switch off the power supply and secure against 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 from unintentional activation of the system and uncontrolled restart

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

WARNING!

Risk of short circuit or media leakage if fittings are not sealed properly

- Make sure the seal is properly seated.
- Carefully screw the coil and cable plug together, i.e. the valve and pipelines.

4.2 Fluidic installation

Observe safety instructions. See Safety instructions [▶ 13]

Any installation position is possible, preferably with the solenoid actuator at the top.

- Clean the pipeline of any impurities before installation.
- For Type 0283, install a dirt trap (≤ 500 µm) upstream of the valve inlet. For Type 0293 DN20, the dirt trap is already integrated into the valve.
- For Type 0293 DN25, a dirt trap (≤500 µm) accessible for maintenance work, e.g. our Type TFU001, must be installed upstream of the valve in accordance with DIN EN 161
- Seal the pipe connection with PTFE tape. Caution: The PTFE tape must not get into the device.
- Observe the flow direction (see following image).

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NOTICE!

Caution! Risk of breakage

- Do not use the solenoid as a lever arm.

- Hold the device on its housing using an open-end wrench and screw into the pipeline.

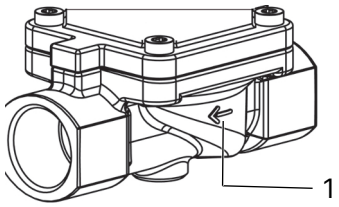

Fig. 5: Flow direction indicator

1	Flow direction

4.3 Electrical installation

WARNING!

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

- Always connect the protective conductor.

Observe the safety instructions and the information on voltage and current type on the type label. See Safety instructions [▶ 13]

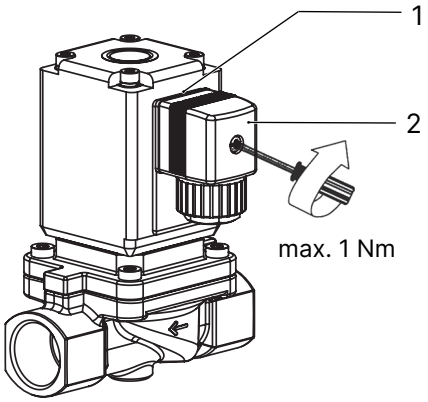

Fig. 6: Cable plug connection using Type 0293 as an example

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

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5 Maintenance, troubleshooting

DANGER!

Risk of injury due to high pressure in the system or device

- Before working on the system or device, switch off the pressure and vent or empty the lines

DANGER!

Risk of injury from electric shock

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

WARNING!

Risk of injury due to improper maintenance work

- Maintenance may 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 maintenance is completed.

The solenoid valve Type 0293 is DVGW-certified. Repairs may only be carried out by Bürkert.

5.1 Troubleshooting

In case of errors, ensure that

- the device is installed according to regulations,
- the connection has been properly made,
- the device is not damaged,
- all screw-type connections are firmly tightened,
- voltage and pressure have been applied,
- and the pipelines are clean.

If the magnet does not attract, ensure that

- there is no short circuit or coil interrupted,
- the core or core area is not contaminated.

If the valve still does not actuate, contact your local Bürkert Service representative.

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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.

The solenoid valve Type 0293 is DVGW-certified. Repairs may only be carried out by Bürkert.

The following spare parts and spare part kits are available for the Type 0283 solenoid valve:

- Coil
- Body
- Seal set SET 2
- Wearing part set SET 3

When ordering, please specify the spare part and the order number of your device (see type label).

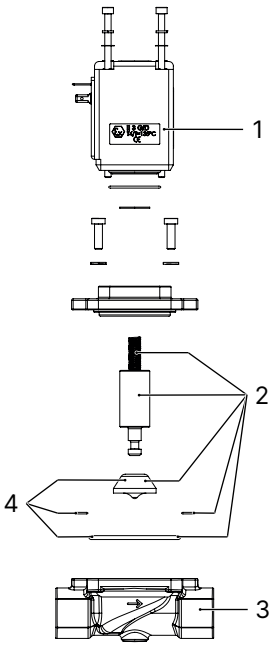

Fig. 7: Overview of spare parts for solenoid valve Type 0283

1	Coil	2	Wearing part set SET 3
3	Body	4	Seal set SET 2

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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, if present, from damage with protective caps.
- Observe the 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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