bürkert
FLUID CONTROL SYSTEMS

MAN 1000624648 EN Version: A Status: RL (released | freigegeben) printed: 19.05.2026

Type 8200

Direct Welding

Operating Instructions

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Technical documentation 2602/01_GBen_00564992_1088908555_1148480011 / Original EN

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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	Welding holder Type 8200

1.3 Manufacturer

Bürkert SAS

20, rue du Giessen

67220 TRIEMBACH-AU VAL

FRANCE

The contact addresses are available at Contact.

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2 Safety

2.1 Intended use

Use of the direct welding holder that does not comply with the instructions could present risks to people, nearby installations and the environment.

- The 8200 direct welding holder is a holder welded onto a pipe and into which an analytical probe is inserted.
- Use the holder in compliance with the specifications and conditions of commissioning and use given in the contractual documents, in these operating instructions and in the operating instructions for the device which is inserted into it.
- Safe and trouble-free operation of the holder depends on its proper transport, storage and installation, as well as careful operation and maintenance.
- Only use the holder as intended.
- Observe any existing restraints when the holder is exported.

2.2 Safety instructions

This safety information does not take into account any contingencies or occurrences that may arise during installation, use and maintenance of the device.

The operating company is responsible for the respect of the local safety regulations including for the staff safety.

Danger due to high pressure in the installation.

Danger due to high temperatures of the medium.

Danger due to the nature of the medium.

Various dangerous situations

To avoid personal injury, take care to:

- Prevent any unintentional power supply switch-on.
- To ensure that installation and maintenance work are carried out by qualified, authorised personnel in possession of the appropriate tools.
- Use the holder only if in perfect working order and in compliance with the instructions provided in the instruction manual.
- To replace defective parts immediately.
- Observe the general technical rules when installing and using the holder.
- Not to fix, assemble or maintain the holder in explosive atmospheres.
- Not to use fluid that is incompatible with the materials from which the holder is made.
- Not to use the holder in an environment incompatible with the materials from which it is made.
- Not to subject the holder to mechanical loads (by placing objects on top of it or by using it as a step, for example).
- Not to paint the internal or external threaded parts.

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The holder may be damaged by the fluid in contact with.

- Systematically check the chemical compatibility of the component materials of the holder and the fluids likely to come into contact with it (for example: alcohols, strong or concentrated acids, aldehydes, alkaline compounds, esters, aliphatic compounds, ketones, halogenated aromatics or hydrocarbons, oxidants and chlorinated agents).
- Conctact with salt solutions and concentrated acids can result in corrosion.

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3 Product description

3.1 Area of application

The 8200 direct welding holder is a holder welded onto a pipe and into which an analytical probe is inserted. It is developed especially for applications in biotechnology and pharmaceuticals with great demands for cleanliness.

3.2 Available version

The direct welding holder exists in a single version with order code: 561728.

The certificate 3.1 is supplied with all the holders.

3.3 General description

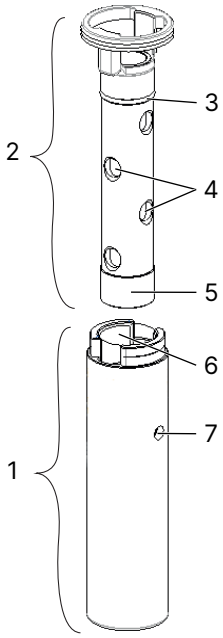

Fig. 1: Description of the holder

1	Steel frame	2	Seal pusher
3	O-ring	4	Holes
5	O-ring sleeve (contains O-ring)	6	PG 13.5 thread
7	Pressure evacuation holes (also accepts cleaning adapter)		

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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 Conditions of use

Fluid temperature	-30 to 140°C max. Temperature limits may depend on the inserted probe. Refer to the relevant operating instructions. If the temperature ranges given for the holder and the inserted probe are different, use the most restrictive range.
Pressure class	16 bar max. Pressure limits may depend on the inserted probe. Refer to the relevant operating instructions. If the pressure ranges given for the holder and the inserted probe are different, use the most restrictive range.
Storage temperature	-30 to 140°C

4.3 Dimensions

Refer to the related datasheet at Type 8200

4.4 Materials

Steel frame	Stainless steel
O-ring	EPDM
Seal pusher	Stainless Steel

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5 Installation, commissioning

5.1 Safety instructions

DANGER!

Risk of injury due to high pressure in the installation.

- Stop the circulation of fluid, cut-off the pressure and drain the pipe before loosening the process connections.

DANGER!

Risk of injury due to high fluid temperatures.

- Use safety gloves to handle the holder.
- Stop the circulation of fluid and drain the pipe before loosening the process connections.

DANGER!

Risk of injury due to the nature of the fluid.

- Respect the prevailing regulations on accident prevention and safety relating to the use of hazardous products.

WARNING!

Risk of injury due to nonconforming installation.

- Fluidic installation can only be carried out by qualified and authorised personnel with the appropriate tools.
- Observe the installation instructions for the measuring device inserted into the fitting or the adapter.

WARNING!

Risk of injury due to an uncontrolled restart.

- Ensure that the restart of the installation is controlled after any interventions on it.

WARNING!

Danger due to nonconforming commissioning.

Nonconforming commissioning may lead to injuries and damage the holder and its surroundings.

- Before commissioning, make sure that the staff in charge have read and fully understood the contents of the manual.
- In particular, observe the safety recommendations and intended use.
- The installation must only be commissioned by suitably trained staff.

WARNING!

Gases or liquids can leak out indetected through the seals or the screws.

- Check regularly the holder for leaks.

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WARNING!

Before initial operation of the holder, or after a long out-of use period:

- Ensure that the seal is tight.
- Ensure that all parts are in working order.

5.2 Installation onto the pipe

DANGER!

Risk of injury if the recommendations on installation of the measuring device inserted into the holder are not observed (see the relevant operating instructions).

- Take account of the recommendations on installation of the inserted probe.

- Weld the steel frame into a circular cut-out of appropriate size (28 mm diameter).

NOTICE!

The holder can be welded at a depth of 0 to 55 mm.

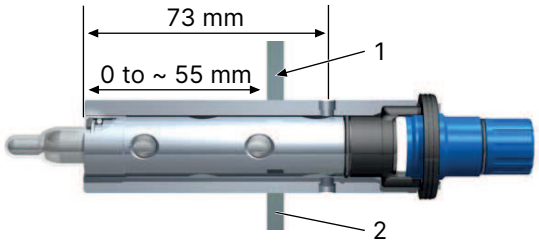

Fig. 2: Dimensions [mm] for the installation of the holder onto the

1	Welding	2	Wall

5.3 Inserting the probe

The holder is intended only for mounting probes with a length of 120 mm.

Make sure the welded area has cooled down before inserting the probe.

- Ensure there is no damage to the probe or the holder.
- Check that all o-rings are in place in their appropriate grooves, and are free of damage.
- Insert the seal pusher.
- Screw the probe into the PG 13.5 thread at a locking torque between 2 and 3 Nm.

Operating mode

When a probe is screwed into the direct welding holder, the seal pusher presses the o-ring into the space between the steel frame and the probe shaft. This seals the probe in a manner that almost completely eliminates crevices and their associated risk of contamination.

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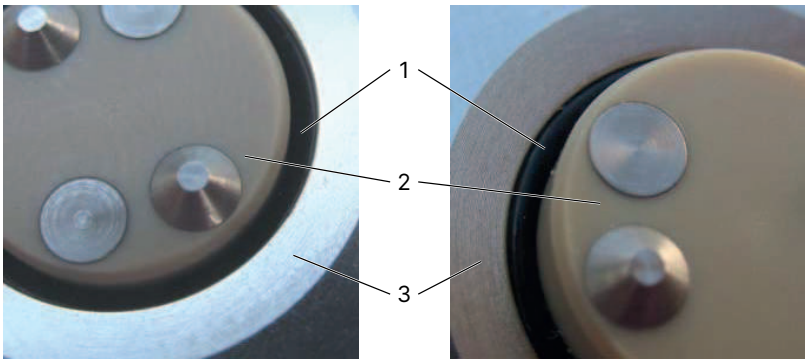
When the probe is loosened, the o-ring relaxes again. This lowers the friction between the o-ring and the other parts of the assembly, and the process is no longer sealed.

If this takes place while the process is still under pressure, the pressure evacuation holes feature (see "The pressure evacuation holes feature"), automatically comes into use.

Tip of a direct welding holder with loose or tightened probe



Tip of a direct welding holder with loose probe: the o-ring is not under pressure.	Tip of a direct welding holder with tightened probe: the o-ring, under pressure, creates a seal with no crevices.

The pressure evacuation holes feature

The direct welding holder is equipped with a safety mechanism, to prevent danger to service personnel.

If the probe is unscrewed while there is still pressure in the process, the o-ring between the probe and the steel frame of the holder loses its seal. In this case, process medium enters the holder and exits through the pressure evacuation holes before the probe is loosened entirely (thereby informing the personnel that there is still pressure in the process).

In this case, tighten again the probe until the process is no longer under pressure. The probe can be then safely removed.

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6 Maintenance and troubleshooting

6.1 Safety instructions

DANGER!

Risk of injury due to high pressure in the installation.

- Stop the circulation of fluid, cut off the pressure and drain the pipe before loosening the process connections.

DANGER!

Risk of injury due to high fluid temperatures.

- Use safety gloves to handle the holder.
- Stop the circulation of fluid and drain the pipe before loosening the process connections.
- Keep all easily flammable fluid or material away from the holder.

DANGER!

Risk of injury due to the nature of the fluid.

- Respect the prevailing regulations on accident prevention and safety relating to the use of aggressive fluids.

WARNING!

Risk of injury due to nonconforming maintenance.

- Maintenance must only be carried out by qualified and skilled staff with the appropriate tools.
- Ensure that the restart of the installation is controlled after any interventions.

6.2 Maintenance

WARNING!

After repairs or maintenance.

- Ensure that the seal is tight.
- Ensure that all parts are in working order.

NOTICE!

Special attention must be given in the maintenance plan to the o-rings. The o-rings used in direct welding holder are consumable parts, and their life expectancy depends on the conditions in which they operate. If the temperature frequently exceeds 100°C, the o-rings must be replaced each time the probe is unscrewed, because they are easily deformed under conditions of high temperature. If replacement of o-rings according to the plan is not followed, leakage can occur.

- Check and replace o-rings as required; always replace at least once a year.
- Check that the probe is tightly screwed into the holder. (Weekly check recommended.)
- Perform CIP cleaning as required by the type of process.

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- Clean the holder by means of the holes, if contamination with medium.
- Thoroughly clean the interior of the holder and the seal pusher if the probe breaks.

6.3 Cleaning

NOTICE!

The holder may be damaged by the cleaning product.

- Clean the holder with a cloth dampened with water or a detergent compatible with the materials the cleaning is made of.
- Never use scouring agent containing hard particles.

Cleaning in place (CIP)

If the installation into which the probe is built is being cleaned, the parts of the holder and the probe that are normally in contact with the medium (now in contact with the cleaning liquid) can be cleaned in place, together with the rest of the installation.

Cleaning the interior of the direct welding holder

If the space between probe and steel frame in the interior of the holder becomes contaminated, it can be cleaned easily by fitting cleaning adapters (not supplied by Bürkert) to the (non-threaded) holes in the wall of the steel frame, and injecting a suitable cleaning fluid. Alternatively, you can steam-sterilize.

Fig. 3: Cleaning of the holder with cleaning adapters

1	Cleaning adapter, for example inlet	2	Cleaning adapter, for example outlet

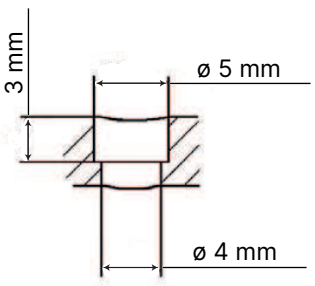

Fig. 4: Dimensions [mm] of a hole for cleaning adapters

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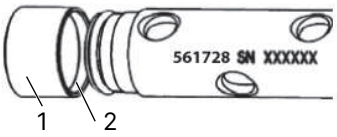
Care of o-rings

- Check the o-rings from time to time.
- When mounting a new o-ring, take care not to damage the o-ring nut and the o-ring. Otherwise the tightness can no longer be guaranteed.



1	Sleeve	2	O-ring (inside the sleeve)

To replace the front o-ring:

- Forcefully pull the sleeve from the seal pusher
- Replace the o-ring

In higher temperature cycles (100 to 140°C) replace the o-ring each time the probe is unscrewed. This is because the compression set of EPDM must be considered (DIN ISO 815, the deviation of the original o-ring form over time, due to high temperature and pressure).

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7 Spare parts and accessories

CAUTION!

Risk of injury and/or damage caused by the use of unsuitable parts.

Incorrect accessories and unsuitable spare parts may cause injuries and damage the product and the surrounding area.

- ▸ Use only original accessories and original spare parts from Bürkert.

- By default, the direct welding holder is delivered with EPDM o-rings.
- The adapter with order code 563477 is useful for mounting 120 mm oxygen or conductivity probes. The adapter is screwed onto the holder and the probe into the adapter. When in place, the end of the probe is almost flush with the top of the holder.

Fig. 5: Direct welding holder with adapter

1	Sensor head	2	Adapter
3	Direct welding holder	4	End of the probe and of the direct welding holder almost flush

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