Type KF01

Filter

Operating Instructions

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025

Technical documentation 2507/02_GBen_00574015_1088114955_9007200342962059 / Original EN

Table of contents

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025

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.

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025

1.2 Terms and abbreviations

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

Product	Filter Type KF01

1.3 Manufacturer

Bürkert SAS

20, rue du Giessen

67220 TRIEMBACH-AU VAL

FRANCE

The contact addresses are available at Contact.

Need more information or additional products?

- Explore the full range of products on our eShop.

2 Safety

2.1 Intended use

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

The Type KF01 filter is intended to filter out particles from gases or liquids.

- Use the product in compliance with the specifications and conditions of commissioning and use given in the contractual documents and in the Operating Instructions of the product.
- Store, transport, install and operate the product properly.
- Only operate a product in perfect working order.
- Only use this product as intended.

2.2 Safety instructions

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

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

Risk of injury due to pressure in the installation

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

Risk of burns due to high fluid temperatures

- Do not touch with bare hands the parts of the product that are in contact with the fluid.
- Stop the circulation of fluid and drain the pipe before loosening the process connections.

Risk of injury due to the nature of the fluid

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

Risk of injury due to escape of the fluid

You can be injured through contact with the operating fluid, its reaction products, and vapours.

You can be injured through inhalation of vapours.

- Observe all applicable accident protection and all applicable safety regulations relating to the operating fluid used.

Various dangerous situations

- Ensure that the installation work and the maintenance work are carried out by qualified, authorised personnel in possession of the appropriate tools.
- Guarantee a set or controlled restarting of the process, after a power supply interruption.
- Use the product only if in perfect working order and in compliance with the instructions provided in the Operating Instructions.

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025

- Observe the general technical rules when installing and using the product.
- Do not use the product in explosive atmospheres.
- Do not use fluid that is incompatible with the materials from which the product is made.
- Do not use the product in an environment incompatible with the materials from which it is made.
- Do not subject the product to mechanical loads.
- Do not make any modifications to the product.

The product may be damaged by the fluid

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

3 Product description

3.1 Product overview

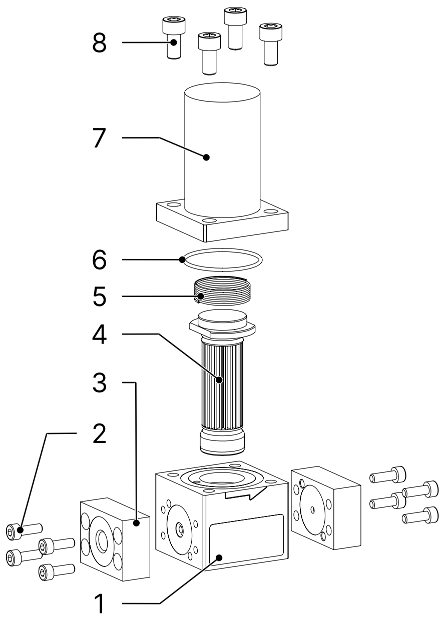

Fig. 1: Product variants, Type KF01 filter

1 Filter body	2 M4x16 socket head screws (x8)
3 Flange plate (x2)	4 Filtering element
5 Compression spring	6 FFKM O-ring or metal O-ring
7 Filter cover	8 M6x16 socket head screws (x4)

3.2 Type label

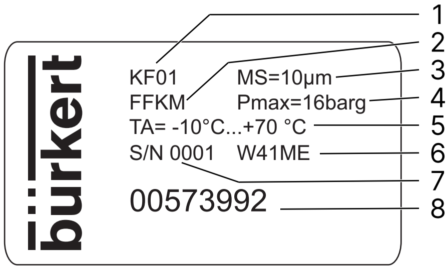

Fig. 2: Type label of the Type KF01 filter (example)

1 Type of the product	2 O-ring material
3 Filter mesh-size	4 Maximum operating pressure
5 Ambient temperature	6 Manufacturing code
7 Serial number	8 Article number

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

Ambient temperature	–10...+70 °C
Fluid temperature	0...+70 °C
Storage temperature	–20...+70 °C

4.3 Dimensions

Refer to the related datasheet at country.burkert.com.

4.4 Materials

Materials in contact with the fluid

Filter body	1.4404
Flange plate	1.4404
Double-ferrule fitting	1.4404
Filtering element	1.4404
Compression spring	1.4571
O-ring	FFKM Metal, silver plated
Filter cover	1.4404

Materials not in contact with the fluid

M6x16 socket head screws	Stainless steel, PTFE plated
Type label	Polyester

4.5 Fluid data

Type of fluid	gas or liquid
Operating pressure	max 16 bar

4.6 Pressure loss

The product has a pressure loss that depends on the following parameters:

- the flow rate value
- the operating fluid
- he ambient temperature

The pressure loss can be read from the diagram in following figure. The pressure loss is only valid for a clean product.

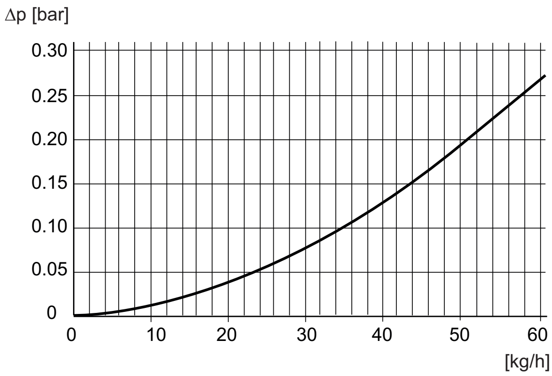

Fig. 3: Pressure loss diagram for a clean product, with ultra pure water, at ambient temperature 23 °C

5 Installation and commissioning

5.1 Safety instructions

DANGER!

Risk of injury due to 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 burns due to high fluid temperatures.

- Do not touch with bare hands the parts of the product that are in contact with the fluid.
- 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 dangerous fluids.

WARNING!

Risk of injury due to escape of the fluid.

You can be injured through contact with the operating fluid, its reaction products, and vapours.

You can be injured through inhalation of vapours.

- Observe all applicable accident protection and all applicable safety regulations relating to the operating fluid used.

WARNING!

Risk of injury due to non-conforming installation.

- Fluidic installation must only be carried out by qualified and authorised personnel with the appropriate tools.

WARNING!

Danger due to non-conforming commissioning.

Non-conforming commissioning may lead to injuries and damage the product and its surroundings.

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

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025

5.2 Fluidic installation

WARNING!

Risk of injury that is due to leakage.

To make sure the installation is tight, observe the following instructions:

- Use pipes with a diameter that is adapted to the fluid connection of the product, and with a smooth surface.

For the connection to the pipe, the product is equipped with one of the following process connections:

- G-internal-threaded fluid connections according to DIN ISO228/1
- NPT-internal-threaded fluid connections according to ASME / ANSI B 1.20.1
- fluid connections with external-threaded vacuum fittings
- fluid connections with external-threaded compression fittings

5.2.1 Recommendations for the installation into the pipe

Make sure to respect the following recommendations:

- Make sure that there is no contamination in the pipe.
- Respect the pressure loss diagramm. Refer to Pressure loss [▸ 10].
- Install the product upstream other equipments, as shown in following figure. The equipment can be a pump, a valve, a mass-flow meter or a mass-flow controller.

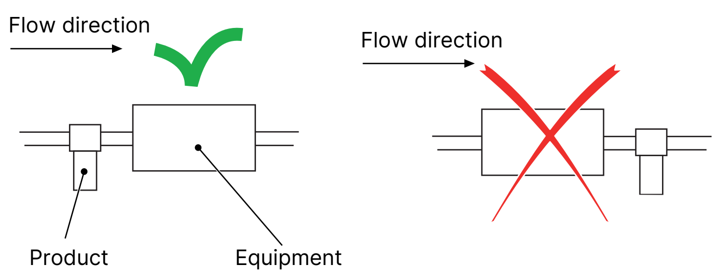

Fig. 4: Mounting upstream another equipment

- Position the product in order the arrow on the side of the housing indicates the direction of the flow.
- Only install the product in a horizontal pipe.
- Make sure that the filter cover points down, as shown in following figure.

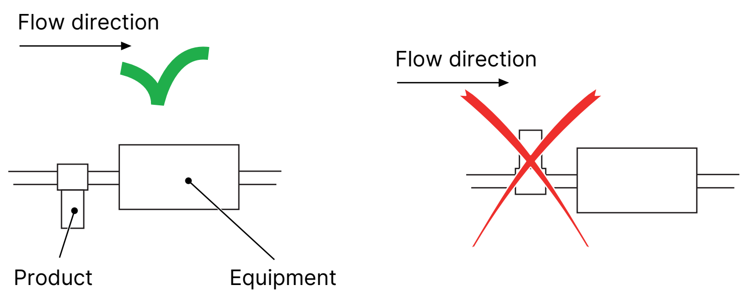

Fig. 5: Mounting the product with filter cover down

5.2.2 G1/8"-internal-threaded fluid connections

- Follow the recommendations given in Recommendations for the installation into the pipe [▸ 12].
- Remove the protective cap that closes the threaded connection.
- Do the fluid connection on one side of the product.
- Obey the instructions that are given by the manufacturer of the fitting used.
- Obey the torques that are given by the manufacturer of the fitting used.
- Do the fluid connection on the other side of the product in the same way.

5.2.3 NPT1/8"-internal-threaded fluid connections

- Follow the recommendations given in Recommendations for the installation into the pipe [▸ 12].
- Do the fluid connection on one side of the product.
- Obey the instructions that are given by the manufacturer of the fitting used.
- Obey the torques that are given by the manufacturer of the fitting used.
- Do the fluid connection on the other side of the product in the same way.

5.2.4 Fluid connections with external threaded vacuum fittings

- Follow the recommendations given in Recommendations for the installation into the pipe [▸ 12].
- Remove the protective cap that closes the connection.
- Do the fluid connection on one side of the product.
- Obey the instructions that are given by the manufacturer of the fitting used.
- **CAUTION! To avoid damage on the sealing of the fluid connection, please make sure to lock the hexagonal part in place with a second wrench.** Obey the torques that are given by the manufacturer of the fitting used.
- Do the fluid connection on the other side of the product in the same way.

5.2.5 Fluid connections with externalthreaded compression fittings

- Follow the recommendations given in Recommendations for the installation into the pipe [▸ 12].
- Do the fluid connection on one side of the product.
- Obey the instructions that are given by the manufacturer of the fitting used.
- **CAUTION! To avoid damage on the sealing of the fluid connection, please make sure to lock the hexagonal part in place with a second wrench.** Obey the torques that are given by the manufacturer of the fitting used.
- Do the fluid connection on the other side of the product in the same way.

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025

6 Maintenance

6.1 Safety instructions

DANGER!

Risk of injury due to 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 burns due to high fluid temperatures.

- Do not touch with bare hands the parts of the product that are in contact with the fluid.
- 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 dangerous fluids.

WARNING!

Risk of injury due to non-conforming maintenance.

- Maintenance must only be carried out by qualified and skilled staff with the appropriate tools.

6.2 Disassemble the product

- Relieve the operating-fluid pressure in the installation.
- Flush the product with a neutral fluid such as distilled water.
- Relieve the flushing-fluid pressure in the installation.
- Disconnect the fluid connections.
- Remove the product.

6.3 Change the filtering element

Product variant with metal O-ring

If the product has a metal O-ring, the filtering element cannot be replaced. You must replace the product.

- To identify the O-ring material, refer to the Type label of the product.

Product variant with FFKM O-ring

- Make sure the O-ring material is FFKM. Refer to the Type label of the product.

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025

Burkert recommends to change the filtering element in the following cases:

- every time the fluid changes;
- when the filtering element is clogged.

Prerequisites

- ▸ Buy the spare-part set with article number 00574647.
- ▸ Get an hexagonal key of size 5.

Clean the fluidic parts of the product

- ▸ Relieve the operating-fluid pressure in the installation.
- ▸ Flush the product with a neutral fluid such as nitrogen.
- ▸ Relieve the flushing-fluid pressure in the installation.

Remove the filter cover

CAUTION!

Risk of injury due to the ejection of components.

- ▸ Hold the filter cover tightly with one of your hands before loosening the screws.

- ▸ While holding the filter cover with one hand, loosen the 4 screws and keep them in a clean place.
- ▸ Carefully pull down the filter cover. When you remove the filter cover, you also remove the compression spring, the filtering element and the O-ring.

Remove the old filtering element

- ▸ Pull out the filtering element from the filter cover.
- ▸ Remove the old O-ring from the groove of the filter cover.
- ▸ Dispose the old filtering element and the old O-ring in a environmentally- friendly way.

Insert the new filtering element

- ▸ Make sure that the compression spring is correctly positionned in the filter cover.
- ▸ Position the widest side of the filtering element downwards. Insert the new filtering element into the filter cover as vertically as possible. Refer to following figure.
- ▸ Insert the new O-ring in the groove of the filter cover.

Assemble the filter cover to the filter body

- ▸ Position the filter cover on the filter body.
- ▸ Insert the 4 screws and tighten them in an alternating pattern to a torque of 6.0 N·m.

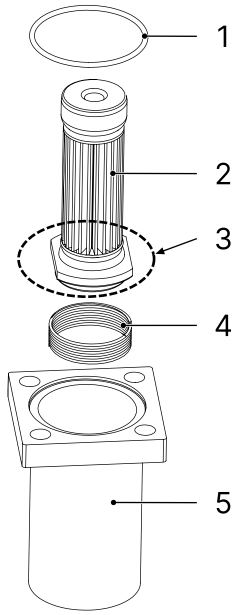

Fig. 6: Assembling sequence

1 O-Ring	2 Filtering element
3 Widest side of the filtering element	4 Compression spring
5 Filter covering	

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025

7 Spare parts and accessories

CAUTION!

Risk of injury and risk of material damage that are due to unsuitable parts.

Incorrect accessories and unsuitable spare parts can cause injuries and damage to the product and its environment.

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

Spare part	Article number
Set including the following items: • 1 filtering element with mesh size 10 µm • 1 O-ring seal, in FFKM • 4 M6x16 socket head screws	00574647

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025

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 from damage with protective caps.
- Observe 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

MAN 1000446429 EN Version: E Status: RL (released | freigegeben) printed: 08.12.2025