



Sample Gas Filter AGF-VA-23

Sample Gas Coalescing Filter K-AGF-VA-23

Installation and Operation Instructions

Original instructions





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Read this instruction carefully prior to installation and/or use. Pay attention particularly to all advises and safety instructions to prevent injuries. Bühler Technologies can not be held responsible for misusing the product or unreliable function due to unauthorised modifications.

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Document information

Document No..... BE410012
Version..... 11/2024

Contents

1	Introduction	2
1.1	Intended Use	2
1.2	Design types	2
1.3	Scope of delivery	2
2	Safety instructions	3
2.1	Important notices	3
2.2	General hazard warnings	4
2.3	Use in explosive atmosphere areas	4
3	Transport and storage	7
4	Installation and connection	8
4.1	Requirements to the installation site	8
4.2	Connecting the gas lines	8
4.3	Connecting a bypass or moisture detector	8
5	Operation and control	9
6	Maintenance	10
6.1	Replacing the filter element	10
7	Service and repair	11
7.1	Spare Parts	11
7.1.1	AGF-VA-23	11
7.1.2	K-AGF-VA-23	12
8	Disposal	13
9	Appendices	14
9.1	Technical Data	14
9.2	Dimensions	15
9.3	List of chemical resistance	16
10	Attached documents	17

1 Introduction

1.1 Intended Use

The filters may be used in a gas analysis system to filter sample gas.

Filters AGF-VA-23 and K-AGF-VA-23 may further be used in explosive atmosphere areas zone 1 and 2 of explosion groups IIA, IIB and IIC. For this kind of use, the provisions in the chapter [Use in explosive atmosphere areas](#) [> page 4] must be observed in addition to the other specifications in these operating instructions.

1.2 Design types

If a filter type has special features, these are described separately in the operating manual. When connecting, please note the specific values of the filter, and the correct version when ordering spare parts.

Please refer to the nameplate to identify your model. In addition to the job number it also contains the item number and model designation.

The filters described here are based on the same gas connections and the same mounting diagram.

Filter type	Description
AGF-VA-23-V	Stainless steel filter with Viton/PVDF seal
AGF-VA-23-P	Stainless steel filter with HiFluor seal
AGF-VA-23-V-F2/F25	Stainless steel filter with Viton/PVDF seal
AGF-VA-23-P-F2/F25	Stainless steel filter with HiFluor seal
K-AGF-VA-23-V	Stainless steel coalescence filter with Viton/PVDF seal
K-AGF-VA-23-P	Stainless steel coalescence filter with HiFluor seal

Tab. 1: Filter type overview

1.3 Scope of delivery

For AGF-VA-23:

- 1 x Filter
- Product Documentation

For K-AGF-VA-23:

- 1 x Filter
- 1x Filter element
- Product Documentation

2 Safety instructions

2.1 Important notices

This unit may only be used if:

- The product is being used under the conditions described in the operating- and system instructions, used according to the nameplate and for applications for which it is intended. Any unauthorized modifications of the device will void the warranty provided by Bühler Technologies GmbH,
- The specifications and markings in the type plate are observed,
- The limits in the data sheet and the instructions must be observed,
- Monitoring equipment / protection devices must be connected correctly,
- Service and repair work not described in these instructions is performed by Bühler Technologies GmbH,
- Using genuine replacement parts.

Erecting electrical systems in explosive areas requires compliance with regulation EN 60079-14.

Additional national regulations pertaining to initial operation, operation, maintenance, repairs, and disposal must be observed.

These operating instructions are a part of the equipment. The manufacturer reserves the right to change performance-, specification- or technical data without prior notice. Please keep these instructions for future reference.

Signal words for warnings

DANGER	Signal word for an imminent danger with high risk, resulting in severe injuries or death if not avoided.
WARNING	Signal word for a hazardous situation with medium risk, possibly resulting in severe injuries or death if not avoided.
CAUTION	Signal word for a hazardous situation with low risk, resulting in damaged to the device or the property or minor or medium injuries if not avoided.
NOTICE	Signal word for important information to the product.

Warning signs

These instructions include the following warnings:

	General warning sign		General mandatory sign
	Warning not to inhale toxic gases		Wear respiratory equipment
	Warning of corrosive substances		Wear a safety mask
	Warning of explosion hazard		Wear gloves

2.2 General hazard warnings

The equipment must be installed by a professional familiar with the safety requirements and risks.

Be sure to observe the safety regulations and generally applicable rules of technology relevant for the installation site. Prevent malfunctions and avoid personal injuries and property damage.

The operator of the system must ensure:

- Safety notices and operating instructions are available and observed,
- The respective national accident prevention regulations are observed,
- The permissible data and operational conditions are maintained,
- Safety guards are used and mandatory maintenance is performed,
- Legal regulations are observed during disposal,
- compliance with national installation regulations.

Maintenance, Repair

Please note during maintenance and repairs:

- Repairs to the unit must be performed by Bühler authorised personnel.
- Only perform conversion-, maintenance or installation work described in these operating and installation instructions.
- Always use genuine spare parts.
- Do not install damaged or defective spare part. If necessary, visually inspect prior to installation to determine any obvious damage to the spare parts.

Always observe the applicable safety and operating regulations in the respective country of use when performing any type of maintenance.

DANGER

Toxic, corrosive gases

The measuring gas led through the equipment can be hazardous when breathing or touching it.



- a) Check tightness of the measuring system before putting it into operation.
- b) Take care that harmful gases are exhausted to a safe place.
- c) Before maintenance turn off the gas supply and make sure that it cannot be turned on unintentionally.
- d) Protect yourself during maintenance against toxic / corrosive gases. Use suitable protective equipment.



2.3 Use in explosive atmosphere areas

Intended Use

Filters AGF-VA-23 and K-AGF-VA-23 may be used in explosive atmosphere areas zone 1 and 2. Explosion groups IIA, IIB and IIC are approved. The filters have no innate ignition source and do not fall into the application of Directive 2014/34/EU. Because of this, they do not bear the CE mark.

The ambient temperatures must not be below +5 °C or above +60 °C.

The maximum surface temperature is directly affected by the temperature of the medium introduced. The medium introduced must not exceed the maximum temperature of +100 °C. If necessary, a temperature monitor should be installed.

When operating the filters with moisture detector and controller, these must be inherently safe according to EN 60079-11.

When using a moisture detector, its working temperature may deviate from those specified here and limit the approved ambient temperature range of the filter as well as the permissible medium temperatures.

Depending on the process conditions, pressure or flow sensors may be required for continuous monitoring. If the process poses a risk of flame propagation, a flame arrestor must be installed.

The approved explosion group of the inner zone varies by the filter element used. To learn which explosion group possible filter elements fall under, see chapters [AGF-VA-23](#) [> page 11] and [K-AGF-VA-23](#) [> page 12].

Safety instructions

The following safety notices must absolutely be followed when operating the filter in an area with explosive atmosphere. Failure to do so can result in an explosion hazard.

- Only perform installation-, removal- and maintenance work in non-explosive atmosphere.
- Protect filter from mechanical impact. If necessary, install a cover which withstands at least 4 joule.
- Protect filter from vibration, or avoid vibration. If necessary, mechanically brace supply and discharge lines.
- Observe all limits, operating parameters, etc. specified in these operating instructions and the data sheet.
- Maintenance and cleaning instructions must be followed.
- When used with moist gasses, a condensate separator must be installed. Moist gasses can clog pores in the filter. Gas pressure building up can result in an impermissible temperature rise.
- Observe the grade of filtration of the fine mesh filter and if necessary install a pre-filtration to ensure larger solid particles do not clog the filter prematurely.
- Observe the durability list in this document. Only use media compatible with the filter materials.
- Do not repair the filter. Damaged filter components must be replaced.
- Do not paint, laminate or otherwise coat the filters.
- Observe the applicable constructor regulations, e.g. EN 60079-14, for installation and mounting.
- All metallic parts of the filter must be connected to an earth potential. The resistance of a continuity test must not exceed 1 MΩ ($1 \cdot 10^6 \Omega$).
- The sealing materials, e.g. Teflon tape, must be conductive so all parts of the filter are earthed. If necessary, install an earth bridge.

Operation and Control

DANGER



Risk of explosive gasses leaking and crossing zones

Check the filter is tight prior to operation. Inadequately sealed filters can leak. Gas may leak or the ambient atmosphere be drawn in. Use a suitable method for the leakage test, appropriate for the application.

DANGER



Explosion hazard due to isolated metal parts

Never operate the filter without the pressure spring in the base. If lost, the filter must be taken out of service. Operation without the pressure spring poses an explosion hazard and considered improper use.

Operation with moisture detector

DANGER



Explosion hazard

To operate the filter in an explosive atmosphere with moisture detector, the moisture detector and controller must be ignition protection class intrinsically safe "Ex i". The use of non-intrinsically safe components may result in ignition in explosive atmospheres. Also note the specifications under EN 60079-14 in this respect.

Service

Please note the following instructions. Failure to do so may result in explosive gasses escaping and crossing zones.

- Check the filter is tight after any maintenance and the intervals specified in the maintenance schedule. Inadequately sealed filters can leak. Gas may leak or the ambient atmosphere be drawn in. Use a suitable method for the leakage test, appropriate for the application.
- There must be no internal or external Ex atmosphere when performing maintenance. If necessary, flush the filter with inert gas. Switch off pumps on the gas circuit and close supply and discharge lines.
- After performing any maintenance, before closing the filter be sure the pressure spring is installed inside the filter if previously removed, or is seated correctly.

Service schedule

When using the filters in ATEX areas, follow this maintenance schedule:

Component	Interval in operating hours	Work to be performed
Filter element	Weekly, and depending on the contamination level of the filter element.	– Visually inspect for contamination. – If contaminated, replace the filter element and O-ring.
O-ring	Every time the filter cover is removed.	– Clean O-ring contact surfaces. – Replace O-ring.
Entire filter	Weekly and depending on the external level of contamination.	– Remove layers of dust with a damp cloth.
Entire filter	Every 6 months and every time the filter is opened.	– Perform a leak test.

When replacing the filter element, the seal must also be replaced.

Cleaning

Dust deposits on the filter must be removed regularly.

DANGER



Explosion hazard due to formation of dangerous electrostatic charge through friction.

Friction with a dry cloth can cause non-dischargeable surfaces to become dangerously electrostatically charged and possibly cause a flammable discharge. Only clean the filter with a clean, damp cloth; do not use solvents.

3 Transport and storage

Only transport the product inside the original packaging or a suitable alternative.

The equipment must be protected from moisture and heat when not in use. It must be stored in a covered, dry and dust-free room at a temperature of -20 °C to 60 °C (-4 °F to 140 °F).

4 Installation and connection

4.1 Requirements to the installation site

The filter should be installed in a way so the filter element can be replaced. If the filter protrudes from a contour, please note this poses a risk of damage.

Mounting is done by two screws M5 in a distance of 35 mm (1.38 in).

4.2 Connecting the gas lines

The connections must be made carefully and properly using suitable fittings (gas connections right/left: G1/4; bottom condensate drain: G3/8) and sealant.

When not using the condensate drain, attach a sealing plug to the thread (included).

An arrow on the filter indicates the flow direction. The head of the filters can be rotated to switch the inlet and outlet sides. Here the included spacer block will be shifted accordingly.

Perform a leak test with suitable means.

4.3 Connecting a bypass or moisture detector

The filter head has a G1/4 female thread, factory sealed with a plug, for installing a bypass or moisture detector.

- To use the thread, unscrew the plug and screw in the fitting or model FF- moisture detector.
- Perform a leak test with suitable means.

CAUTION! With a moisture detector, the permissible pressure is only 2 bar abs. and the maximum temperature 100 °C!

5 Operation and control

NOTICE



The device must not be operated beyond its specifications.

6 Maintenance

During maintenance, remember:

- The equipment must be maintained by a professional familiar with the safety requirements and risks.
- Only perform maintenance work described in these operating and installation instructions.
- Observe the respective safety regulations and operating specifications when performing any type of maintenance.
- Always use genuine spare parts.
- Only perform maintenance when cool.
- For Ex applications also observe chapter “Use in explosive atmosphere areas”.

DANGER

The gas inside the filter, condensate and used filter elements may be caustic or corrosive.

Sample gas can be harmful.

- Before maintenance turn off the gas supply and surge with air if necessary.
- Exhaust sample gas to a safe place.
- Protect yourself against toxic / corrosive gas during maintenance. Wear appropriate personal protection equipment.



6.1 Replacing the filter element

CAUTION

Gas leakage

The filter should not be dismantled under pressure. Don't use damaged parts again.



- Depressurise the system and flush the filter with air before opening.
- Pull the bracket, holding onto the filter cover.
- Slightly move the glass back and forth to carefully remove the cover downward.
- Remove the filter element and insert a new one.
- Check for leaks and replace, if necessary.
- Reattach the cover by slightly moving it back and forth and reattach the bracket. Ensure a proper fit.
- Perform a leak test with suitable means.

NOTICE! Please observe legal regulations when disposing of filter elements.

7 Service and repair

This chapter contains information on troubleshooting and correction should an error occur during operation.

Repairs to the unit must be performed by Bühler authorised personnel.

Please contact our Service Department with any questions:

Tel.: +49-(0)2102-498955 or your agent

For further information about our services and customised maintenance visit <http://www.buehler-technologies.com/service>.

If the equipment is not functioning properly after correcting any malfunctions and switching on the power, it must be inspected by the manufacturer. Please send the equipment inside suitable packaging to:

Bühler Technologies GmbH

- Reparatur/Service -

Harkortstraße 29

40880 Ratingen

Germany

Please also attach the completed and signed RMA decontamination statement to the packaging. We will otherwise be unable to process your repair order.

You will find the form in the appendix of these instructions, or simply request it by e-mail:

service@buehler-technologies.com.

7.1 Spare Parts

Please also specify the model and serial number when ordering parts.

Upgrade and expansion parts can be found in our catalog.

Available spare parts:

7.1.1 AGF-VA-23

Filter (empty housing)

AGF-VA-	23-V	23-P	23-V-F2/F25	23-P-F2/F25
Item no.:	4142999	4145999	4142699	4145699
Element:	for installing DRG filter elements	for installing DRG filter elements	for installing F2/F25 filter elements	for installing F2/F25 filter elements
Seal:	Viton	HiFluor	Viton	HiFluor
permissible explosion group of the external filter area:	IIC	IIC	IIC	IIC

Filter elements

Item no.	Model	Seal	Material	Temperature max.	Filter fineness	Filter surface	Packaging unit	permissible explosion group of the internal filter area
4103004	DRG 60 SO-V	Viton	1.4301/1.4401	150 °C	60 µm	70 cm ²	1 count	IIC
4103009	DRG 60 SO-P	Perfluoroelastomer	1.4301/1.4401	250 °C **	60 µm	70 cm ²	1 count	IIC
41030050	F2	--	Sintered PTFE	100 °C	2 µm	60 cm ²	5 count	IIB
41020130	F25	--	Sintered PTFE	100 °C	25 µm	60 cm ²	5 count	IIB
4128008	Viton O-ring (for filter...-V)							
4126004	HiFluor O-ring (for filter...-P)							

Other filter elements available upon request.

** at reduced maximum pressure.

7.1.2 K-AGF-VA-23

The filter includes a spacer block, 2 fixing bolts DN 912 M5 x 80, as well as sealing plugs inside the bypass and condensate out connection.

Filter including filter element

K-AGF-VA-	23-V	23-P
Item no.:	4142799	4142899
Element:	12-57-C	12-57-C
Seal:	Viton	HiFluor
permissible explosion group of the external filter area:	IIC	IIC
permissible explosion group of the internal filter area:	IIC	IIC

Filter element

Item no.	Model	Filter element	Material	Filter surface	Packaging unit	permissible explosion group of the internal filter area
4932001	12-57-C	Sleeve	Borosilicate fibre	28 cm ²	1 count	IIC

8 Disposal

The applicable national laws must be observed when disposing of the products. Disposal must not result in a danger to health and environment.

The crossed out wheellie bin symbol on Bühler Technologies GmbH electrical and electronic products indicates special disposal notices within the European Union (EU).



The crossed out wheellie bin symbol indicates the electric and electronic products bearing the symbol must be disposed of separate from household waste. They must be properly disposed of as waste electrical and electronic equipment.

Bühler Technologies GmbH will gladly dispose of your device bearing this mark. Please send your device to the address below for this purpose.



We are obligated by law to protect our employees from hazards posed by contaminated devices. Therefore please understand that we can only dispose of your waste equipment if the device is free from any aggressive, corrosive or other operating fluids dangerous to health or environment. **Please complete the "RMA Form and Decontamination Statement", available on our website, for every waste electrical and electronic equipment. The form must be applied to the packaging so it is visible from the outside.**

Please return waste electrical and electronic equipment to the following address:

Bühler Technologies GmbH
WEEE
Harkortstr. 29
40880 Ratingen
Germany

Please also observe data protection regulations and remember you are personally responsible for the returned waste equipment not bearing any personal data. Therefore please be sure to delete your personal data before returning your waste equipment.

9 Appendices

9.1 Technical Data

AGF-VA-23

AGF-VA-23 Fine Mesh Filter

Dead volume with filter element	
DRGxxxSO-V/-P	50 ml
DRGxxxVA-V	56 ml
F2/F25	51 ml
Material - filter housing	1.4571/SS 316 Ti
Material - gasket	available in Viton or HiFluor
Material - filter element	see table
Weight	1.7 kg
Operating pressure max.*	160 bar
Medium temperature max.*	see table

* Pressures and temperatures are greatly reduced when connecting a moisture detector.

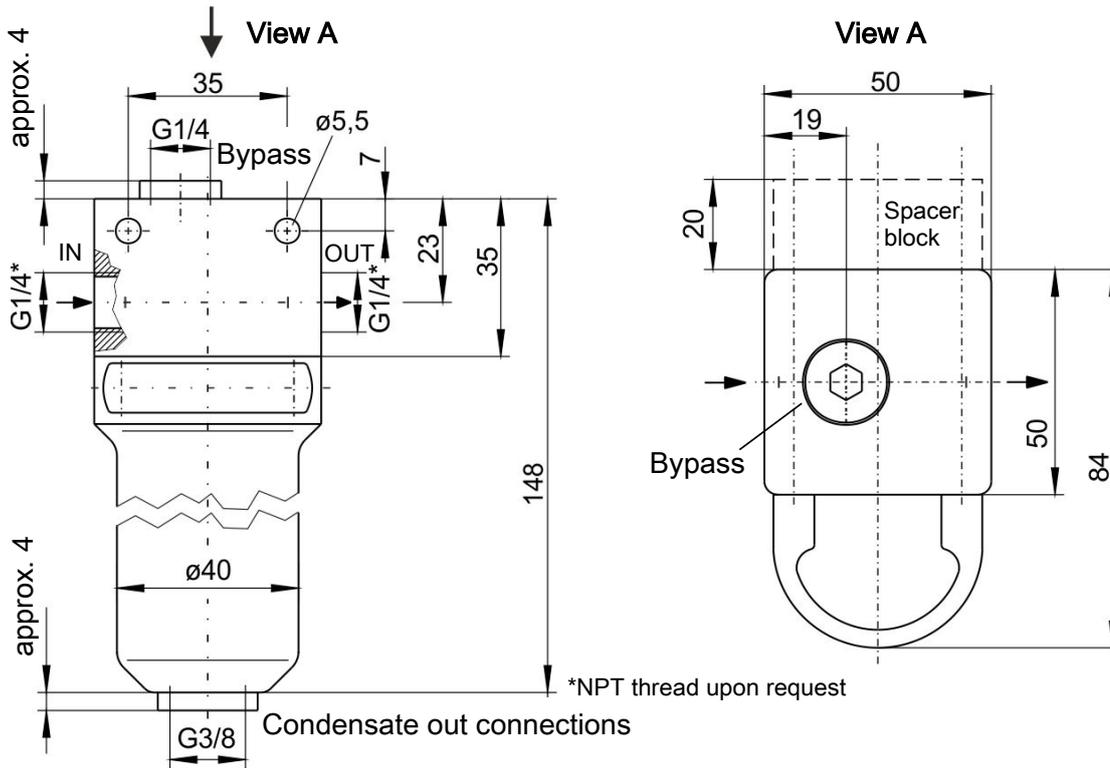
K-AGF-VA-23

K-AGF-VA-23 Coalescence Filter

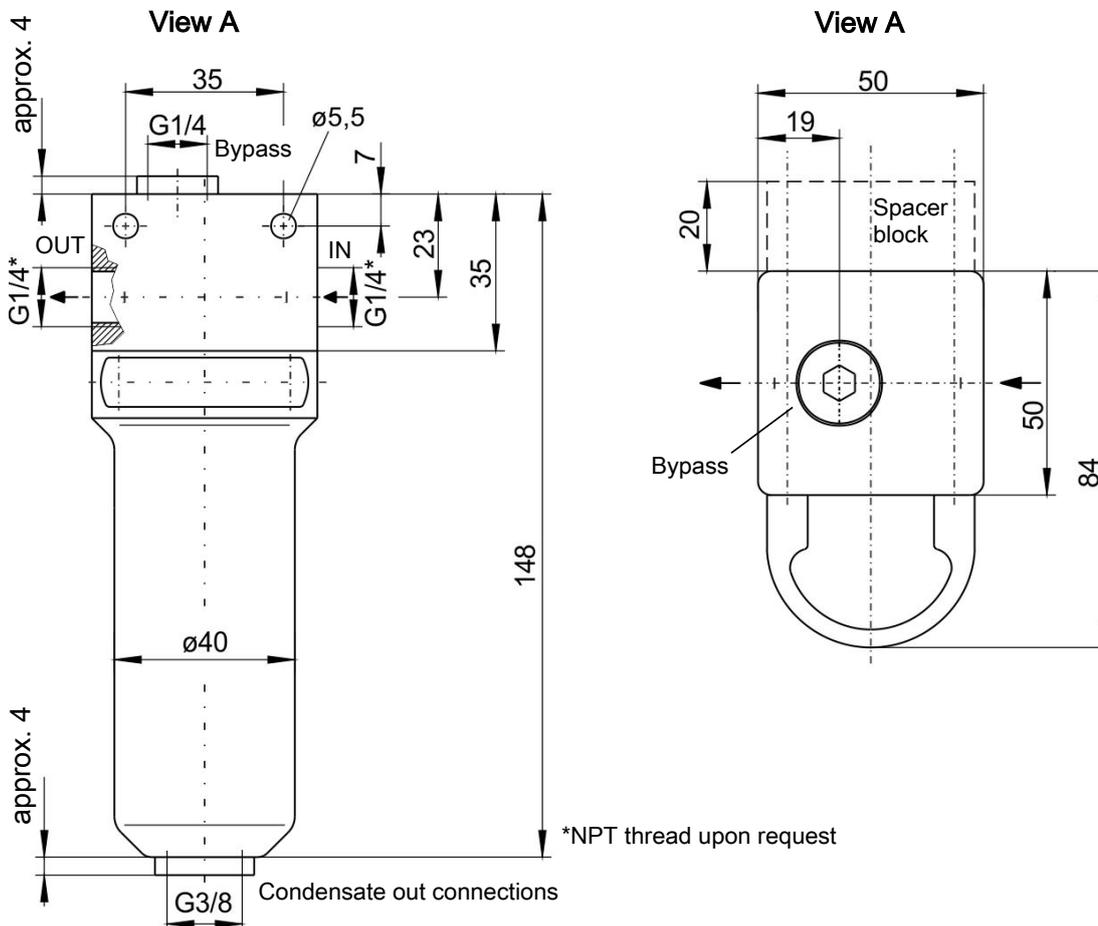
Dead volume with filter element	55 ml
Material - filter housing	1.4571/SS 316 Ti
Material - gasket	available in Viton or HiFluor
Material - filter element	see table
Weight	1.7 kg
Operating pressure max.	160 bar
Medium temperature max.	140 °C

9.2 Dimensions

AGF-VA-23



K-AGF-VA-23



9.3 List of chemical resistance

Formula	Substance	Concentration	Teflon® PTFE	PVDF	Viton® FPM
CH ₃ COCH ₃	Acetone		1/1	3/4	4/4
C ₆ H ₆	Benzene		1/1	1/3	3/3
Cl ₂	Chlorine	10 % wet	1/1	2/2	3/0
Cl ₂	Chlorine	97 %	1/0	1/1	1/1
C ₂ H ₆	Ethane		1/0	2/0	1/0
C ₂ H ₅ OH	Ethanol	50 %	1/1	1/1	2/2
C ₂ H ₄	Ethene		1/0	1/0	1/0
C ₆ H ₅ C ₂ H ₅	Ethylbenzene		1/0	1/1	2/0
HF	Hydrofluoric acid		1/0	2/2	4/0
CO ₂	Carbon dioxide		1/1	1/1	1/1
CO	Carbon monoxide		1/0	1/1	1/0
CH ₄	Methane	technically pure	1/1	1/0	1/1
CH ₃ OH	Methanol		1/1	1/1	3/4
CH ₂ Cl ₂	Methylene chloride		1/0	1/0	3/0
H ₃ PO ₄	Phosphoric acid	1-5 %	1/1	1/1	1/1
H ₃ PO ₄	Phosphoric acid	30 %	1/1	1/1	1/1
C ₃ H ₈	Propane	gaseous	1/1	1/1	1/0
C ₃ H ₆ O	Propenoxide		1/0	2/4	4/0
HNO ₃	Nitric acid	1-10 %	1/1	1/1	1/1
HNO ₃	Nitric acid	50 %	1/1	1/1	1/0
HCl	Hydrochloric acid	1-5 %	1/1	1/1	1/1
HCl	Hydrochloric acid	35 %	1/1	1/1	1/2
O ₂	Oxygen		1/1	1/1	1/2
SF ₆	Sulfur hexafluoride		1/0	0/0	2/0
H ₂ SO ₄	Sulfuric acid	1-6 %	1/1	1/1	1/1
H ₂ S	Hydrosulphide		1/1	1/1	4/4
N ₂	Nitrogen		1/1	1/1	1/1
C ₆ H ₅ C ₂ H ₃	Styrene		1/1	1/0	3/0
C ₆ H ₅ CH ₃	Toluene (Methylbenzene)		1/1	1/1	3/3
H ₂ O	Water		1/1	1/1	1/1

Tab. 2: List of chemical resistance

0 - resistant

1 - practically resistant

2 - partially resistant

3 - not resistant

4 - no data available

Two values are given for each medium, left number = value at 20 °C (68 °F), right number = value at 50 °C (122 °F) Temperature.

Important note

The tables headed "Chemical resistance of plastics" and "Properties of plastics materials" have been compiled from information from various producers of raw materials. The figures relate exclusively to laboratory tests on raw materials. Plastics items made from these materials are often subject to influences which cannot be detected in a laboratory test (temperature, pressure, stresses in the material, chemical substances, design features, etc.). For these reasons the figures quoted can serve only as a guideline. In case of doubt we strongly recommend that a test be carried out. No legal claims can be derived from these figures and we disclaim all liability. The chemical and mechanical resistance of a product does not suffice for the assessment of its suitability for use, for example legislation on flammable liquids (explosion protection) is to be taken into particular consideration.

Chemical resistance for other substance on request.

10 Attached documents

- Manufacturer Declaration HX410010
- RMA – Decontamination Statement

Herstellererklärung Manufacturer Declaration



Hiermit erklärt Bühler Technologies GmbH, dass die nachfolgenden Produkte keine „Geräte“ im Sinne der Richtlinie **2014/34/EU (Atex)** sind und somit nicht mit einem CE-Zeichen versehen sind.

*Herewith Bühler Technologies GmbH declares that the following products are not „equipment“ for the purpose of Directive **2014/34/EU (Atex)**, respectively, and therefore are not labeled with the CE mark.*

Produkt / products: Feinfilter / *Sample gas filter*
Typ / type: K-AGF-VA-23-V, K-AGF-VA-23-P
AGF-VA-23-V, AGF-VA-23-P, AGF-VA-23-V-F2/F25, AGF-VA-23-P-F2/F25

Die oben erwähnten Produkte besitzen keine eigenen Zündquellen, solange für Einbau, Montage, Betrieb, Wartung und Reinigung sämtliche Sicherheitsbestimmungen der Technischen Dokumentation und die einschlägigen Sicherheitsvorschriften (z.B. EN 60079-0, EN 60079-14, etc.) eingehalten werden. Beachten Sie auch die Hinweise in den zugehörigen Datenblättern.

The products specified above have no own ignition sources, provided all safety regulations in the technical documentation and the relevant safety instructions (e.g. EN 60079-0, EN 60079-14, etc.) are observed during installation, assembly, operation, maintenance and cleaning. Note also the indications in the associated datasheets.

Unter Beachtung aller Vorgaben der Betriebsanleitung können die Feinfilter in Gasatmosphären der Explosionsgruppen IIA, IIB und IIC eingesetzt werden, die gelegentlich explosiv sind (Zone 1). Bei Verwendung von Glasfaser-Filterelementen dürfen durch die Filter Gasatmosphären der Explosionsgruppen IIA, IIB und IIC geleitet werden, die gelegentlich explosiv sind (Zone 1). Durch Filterelemente aus PTFE dürfen nur Gasatmosphären der Explosionsgruppen IIA und IIB geleitet werden.
While observing all specifications and procedures of the instruction manual, the sample gas filters can be installed in atmospheres of explosion groups IIA, IIB and IIC, which are likely to explode occasionally (Zone 1). When using fiberglass filter elements atmospheres of explosion groups IIA, IIB and IIC, which are likely to explode occasionally (Zone 1), may be conveyed through the sample gas filter. Through sample gas filter elements made of PTFE only atmospheres of explosion groups IIA and IIB (Zone 1) may be conveyed.

Das oben beschriebene Produkt der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

EN ISO 80079-36:2016

EN ISO 80079-37:2016

Zusätzlich wurden folgende nationale Normen, Richtlinien oder Spezifikationen berücksichtigt:
In addition, the following national standards, guidelines or specifications have been used:

TRGS 727

Die alleinige Verantwortung für die Ausstellung dieser Herstellererklärung trägt der Hersteller.
This declaration of manufacture is issued under the sole responsibility of the manufacturer.

Dokumentationsverantwortlicher für diese Herstellererklärung ist Herr Stefan Eschweiler mit Anschrift am Firmensitz.

The person authorised to compile the technical file is Mr. Stefan Eschweiler located at the company's address.

Ratingen, den 01.11.2022

Stefan Eschweiler
Geschäftsführer – *Managing Director*

Frank Pospiech
Geschäftsführer – *Managing Director*

Manufacturer Declaration



Herewith Bühler Technologies GmbH declares that the following products are not „equipment” for the purpose of legislation **Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016** respectively, and therefore are not labelled with the UKCA mark.

Product: Sample gas filter
Types: K-AGF-VA-350-T
AGF-VA-350-T

This declaration is valid for all devices manufactured in accordance with the manufacturing documents deposited with the manufacturer – which form an integral part of this declaration.

The products specified above have no own ignition sources, provided all safety regulations in the technical documentation and the relevant safety instructions (e.g. EN 60079-0, EN 60079-14, etc.) are observed during installation, assembly, operation, maintenance and cleaning. Note also the indications in the associated datasheets.

While observing all specifications and procedures of the instruction manual, the sample gas filters can be installed in atmospheres of explosion groups IIA, IIB and IIC, which are likely to explode occasionally (Zone 1).

When using fiberglass filter elements atmospheres of explosion groups IIA, IIB and IIC, which are likely to explode occasionally (Zone 1), may be conveyed through the sample gas filter. Through sample gas filter elements made of PTFE only atmospheres of explosion groups IIA and IIB (Zone 1) may be conveyed.

The object of the declaration described above is in conformity with the relevant designated standards:

EN ISO 80079-36:2016

EN ISO 80079-37:2016

In addition, the following standards have been used:

TRGS 727

This declaration of manufacture is issued under the sole responsibility of the manufacturer.

Ratingen in Germany, 01.11.2022

A handwritten signature in black ink, appearing to read 'Stefan Eschweiler'.

Stefan Eschweiler
Managing Director

A handwritten signature in blue ink, appearing to read 'Frank Pospiech'.

Frank Pospiech
Managing Director

RMA-Formular und Erklärung über Dekontaminierung

RMA-Form and explanation for decontamination



RMA-Nr./ RMA-No.

Die RMA-Nr. bekommen Sie von Ihrem Ansprechpartner im Vertrieb oder Service. Bei Rücksendung eines Altgeräts zur Entsorgung tragen Sie bitte in das Feld der RMA-Nr. "WEEE" ein./ You may obtain the RMA number from your sales or service representative. When returning an old appliance for disposal, please enter "WEEE" in the RMA number box.

Zu diesem Rücksendeschein gehört eine Dekontaminierungserklärung. Die gesetzlichen Vorschriften schreiben vor, dass Sie uns diese Dekontaminierungserklärung ausgefüllt und unterschrieben zurücksenden müssen. Bitte füllen Sie auch diese im Sinne der Gesundheit unserer Mitarbeiter vollständig aus./ This return form includes a decontamination statement. The law requires you to submit this completed and signed decontamination statement to us. Please complete the entire form, also in the interest of our employee health.

Firma/ Company

Firma/ Company

Straße/ Street

PLZ, Ort/ Zip, City

Land/ Country

Gerät/ Device

Anzahl/ Quantity

Auftragsnr./ Order No.

Ansprechpartner/ Person in charge

Name/ Name

Abt./ Dept.

Tel./ Phone

E-Mail

Serien-Nr./ Serial No.

Artikel-Nr./ Item No.

Grund der Rücksendung/ Reason for return

- Kalibrierung/ Calibration Modifikation/ Modification
 Reklamation/ Claim Reparatur/ Repair
 Elektroaltgerät/ Waste Electrical & Electronic Equipment (WEEE)
 andere/ other

bitte spezifizieren/ please specify

Ist das Gerät möglicherweise kontaminiert?/ Could the equipment be contaminated?

- Nein, da das Gerät nicht mit gesundheitsgefährdenden Stoffen betrieben wurde./ No, because the device was not operated with hazardous substances.
 Nein, da das Gerät ordnungsgemäß gereinigt und dekontaminiert wurde./ No, because the device has been properly cleaned and decontaminated.
 Ja, kontaminiert mit:/ Yes, contaminated with:



explosiv/
explosive



entzündlich/
flammable



brandfördernd/
oxidizing



komprimierte
Gase/
compressed
gases



ätzend/
caustic



giftig,
Lebensgefahr/
poisonous, risk
of death



gesundheitsge-
fährdend/
harmful to
health



gesund-
heitsschädlich/
health hazard



umweltge-
fährdend/
environmental
hazard

Bitte Sicherheitsdatenblatt beilegen!/ Please enclose safety data sheet!

Das Gerät wurde gespült mit:/ The equipment was purged with:

Diese Erklärung wurde korrekt und vollständig ausgefüllt und von einer dazu befugten Person unterschrieben. Der Versand der (dekontaminierten) Geräte und Komponenten erfolgt gemäß den gesetzlichen Bestimmungen.

This declaration has been filled out correctly and completely, and signed by an authorized person. The dispatch of the (decontaminated) devices and components takes place according to the legal regulations.

Falls die Ware nicht gereinigt, also kontaminiert bei uns eintrifft, muss die Firma Bühler sich vorbehalten, diese durch einen externen Dienstleister reinigen zu lassen und Ihnen dies in Rechnung zu stellen.

Should the goods not arrive clean, but contaminated, Bühler reserves the right, to commission an external service provider to clean the goods and invoice it to your account.

Firmenstempel/ Company Sign

Datum/ Date

rechtsverbindliche Unterschrift/ Legally binding signature



Vermeiden von Veränderung und Beschädigung der einzusendenden Baugruppe

Die Analyse defekter Baugruppen ist ein wesentlicher Bestandteil der Qualitätssicherung der Firma Bühler Technologies GmbH. Um eine aussagekräftige Analyse zu gewährleisten muss die Ware möglichst unverändert untersucht werden. Es dürfen keine Veränderungen oder weitere Beschädigungen auftreten, die Ursachen verdecken oder eine Analyse unmöglich machen.

Umgang mit elektrostatisch sensiblen Baugruppen

Bei elektronischen Baugruppen kann es sich um elektrostatisch sensible Baugruppen handeln. Es ist darauf zu achten, diese Baugruppen ESD-gerecht zu behandeln. Nach Möglichkeit sollten die Baugruppen an einem ESD-gerechten Arbeitsplatz getauscht werden. Ist dies nicht möglich sollten ESD-gerechte Maßnahmen beim Austausch getroffen werden. Der Transport darf nur in ESD-gerechten Behältnissen durchgeführt werden. Die Verpackung der Baugruppen muss ESD-konform sein. Verwenden Sie nach Möglichkeit die Verpackung des Ersatzteils oder wählen Sie selber eine ESD-gerechte Verpackung.

Einbau von Ersatzteilen

Beachten Sie beim Einbau des Ersatzteils die gleichen Vorgaben wie oben beschrieben. Achten Sie auf die ordnungsgemäße Montage des Bauteils und aller Komponenten. Versetzen Sie vor der Inbetriebnahme die Verkabelung wieder in den ursprünglichen Zustand. Fragen Sie im Zweifel beim Hersteller nach weiteren Informationen.

Einsenden von Elektroaltgeräten zur Entsorgung

Wollen Sie ein von Bühler Technologies GmbH stammendes Elektroprodukt zur fachgerechten Entsorgung einsenden, dann tragen Sie bitte in das Feld der RMA-Nr. „WEEE“ ein. Legen Sie dem Altgerät die vollständig ausgefüllte Dekontaminierungserklärung für den Transport von außen sichtbar bei. Weitere Informationen zur Entsorgung von Elektroaltgeräten finden Sie auf der Webseite unseres Unternehmens.

Avoiding alterations and damage to the components to be returned

Analysing defective assemblies is an essential part of quality assurance at Bühler Technologies GmbH. To ensure conclusive analysis the goods must be inspected unaltered, if possible. Modifications or other damages which may hide the cause or render it impossible to analyse are prohibited.

Handling electrostatically conductive components

Electronic assemblies may be sensitive to static electricity. Be sure to handle these assemblies in an ESD-safe manner. Where possible, the assemblies should be replaced in an ESD-safe location. If unable to do so, take ESD-safe precautions when replacing these. Must be transported in ESD-safe containers. The packaging of the assemblies must be ESD-safe. If possible, use the packaging of the spare part or use ESD-safe packaging.

Fitting of spare parts

Observe the above specifications when installing the spare part. Ensure the part and all components are properly installed. Return the cables to the original state before putting into service. When in doubt, contact the manufacturer for additional information.

Returning old electrical appliances for disposal

If you wish to return an electrical product from Bühler Technologies GmbH for proper disposal, please enter "WEEE" in the RMA number box. Please attach the fully completed decontamination declaration form for transport to the old appliance so that it is visible from the outside. You can find more information on the disposal of old electrical appliances on our company's website.

