Gas Analysis

Sample gas filter AGF-PV-30, AGF-PV-S2, AGF-T-30, K-AGF-PV-30, RAF-PV-30, ADF-PV-30

Installation and Operation Instructions

Original instructions

BE410011
06/2024

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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.

Document information
Document No..... BE410011
Version..... 06/2024

Contents

1 Introduction

1.1 Intended Use

The filters were designed specifically for front panel installation in analysers or systems. All types can be used for filtering sample gas.

When used in explosive atmosphere areas

Under certain conditions the filters and filter elements may further be used in areas with explosive atmosphere. The provisions and specifications in chapter "**Use in explosive atmosphere areas**" 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.

The marking xx stands for the respective filter element used.

Filter type	Description
AGF-PV-30-xx	Filter with PVDF head
AGF-PV-S2	Filter with PVDF head with swivel nut
AGF-PV-30-xx-A	Filter with PVDF head with swivel nut, with GL 25 condensate drain
AGF-T-30-xx	Filter with PTFE head with swivel nut
ADF-PV-30-L	For adding adsorbent, PVDF filter head
RAV-PV-30-xx	Ambient air filter with PVDF head
K-AGF-PV-30-A	Coalescence filter with PVDF head

Tab. 1: Filter type overview

1.3 Scope of delivery

- 1 x Filter
- Product documentation

2 Safety instructions

2.1 Important notices

Operation of the device is only permitted if:

- the product is used under the conditions described in the installation- and operation instruction, the intended application according to the type plate and the intended use. In case of unauthorized modifications done by the user Bühler Technologies GmbH can not be held responsible for any damage,
- when complying with the specifications and markings on the nameplates.
- the performance limits given in the datasheets and in the installation- and operation instruction are obeyed,
- monitoring devices and safety devices are installed properly,
- service and repair is carried out by Bühler Technologies GmbH,
- only original spare parts are used.

This manual is part of the equipment. The manufacturer keeps the right to modify specifications without advanced notice. Keep this manual for later use.

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 save 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.

WARNING

Fragile

Leaking toxic or explosive gasses may cause poisoning/injury.

a) Protect the equipment from external blows.

b) Protect the unit from falling objects.

2.3 Use in explosive atmosphere areas

Intended Use

AGF-PV-30. AGF-PV-S2, AGF-T-30. K-AGF-PV-30 and RAF-PV-30 filters may be used in Zone 1 and 2 areas with explosive atmosphere. 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 ADF-PV-30 filter must not be used in explosive atmosphere areas.

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 permissible explosion group (IIB or IIC) of the filter interior depends on the filter element used. The following table provides an overview of the explosion groups of possible filter elements:

Filter element model:	Explosion group:
S2	IIC
S2-KU	IIC
F2	IIB
F25	IIB
F2-L	IIB
F25-L	IIB
12-57-C	IIC

Tab. 2: Explosion groups for filter elements

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 ($1*10^6$ Ω).
- 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 Controls

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.

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, ensure that the pressure spring is installed / seated correctly inside the filter if previously removed.

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.

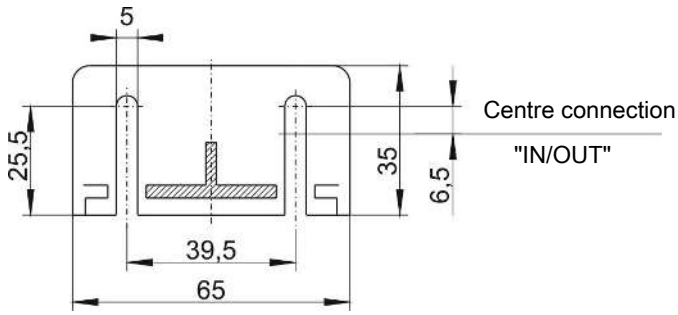
The equipment must be protected from moisture and heat when not in use. It must be stored in a covered, dry and dust-free room at a temperature of -20 °C to 60 °C (-4 °F to 140 °F).

4 Installation and connection

4.1 Installation site requirements

Always use washers on the longitudinal slots when installing the retaining ring flange. Furthermore, ensure that the filter has been inserted all the way to the end of these longitudinal slots.

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.



The maximum gas temperature is 100 °C.

The maximum permissible pressure is 4 bar abs.

The instructions in the chapter Use in explosive atmosphere areas [> page 5] must be followed at all times.

4.2 Connecting the gas lines and the condensate drain

The connections must be made carefully and properly using suitable fittings, and tightened hand-tight.

Please check if your version has G-threads or NPT threads. On the latter, the item number on the nameplate is followed by "I".

An arrow on the filter indicates the flow direction.

When not using the condensate drain, close the opening with a sealing plug.

On special versions without union nut and/or seal on the condensate drain, the operator must ensure proper sealing. We recommend using a PBTP union nut (GL25 thread) and a silicone seal with PTFE sleeve at one end.

The head of the filters can be rotated to switch the inlet and outlet sides (type RAV... inlet only).

Perform a leak test with suitable means.

4.3 Connecting a bypass or moisture detector

NOTICE! Not for AGF-T-30. not expedient with RAF-PV-30.

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.

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.

DANGER

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

Sample gas can be harmful.

a) Before maintenance turn off the gas supply and surge with air if necessary.

b) Exhaust sample gas to a safe place.

c) 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.

- **AGF-T-30. AGF-PV-S2:** Unscrew the swivel nut, holding on to the glass
- **All others:** Pull the bracket, holding on to the filter glass
- Whilst holding the filter head, move the glass back and forth and carefully remove downward.
- **AGF-PV-30. AGF-PV-S2, AGF-T-30. RAF-PV-30:** Remove the filter element and install a new one
- **ADF-PV-30:** Replace adsorbent
- **K-AGF:**
  - Unscrew the support tube with filter element from the filter head.
  - Pull the filter element off the support tube and attach a new element.
  - Screw the support tube with filter element hand tight into the filter head. The self-sealing is achieved through light contact pressure of the filter element at the front. Avoid excessive seating stress.
- After checking the seal, reinstall the glass whilst holding on to the filter head, slightly moving the glass back and forth, and attach the bracket or tighten the swivel nut. 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 K-AGF-PV-30-A

Filter including filter element

K-AGF-PV-	30-A	30-A-I
Item no.:	4150699	4150699I
Element:	12-57-C	12-57-C
Connections:	G1/4 outlet and inlet	NPT 1/4" outlet and inlet
Seal:	Viton	Viton
permissible explosion group of the external filter area:	IIC	IIC
permissible explosion group of the internal filter area:	IIC	IIC

Filter element

Item no.	Type	Filter element	Material	Filter surface	Packaging unit	permissible explosion group of the internal filter area
4932002	12-57-C	Screw-in sleeve	Borosilicate fibre	28 cm^2	1 count	IIC

7.1.2 AGF-PV-30

Filter including filter element

AGF-PV- AGF-PV-	30-S2 30-S2-I	30-S2-A 30-S2-A-I	30-F2 30-F2-I	30-F2-A 30-F2-A-I	30-F2-L 30-F2-L-I
Filter fineness:	2 µm	2 µm	2 µm	2 µm	2 µm
Item no. (G1/4):	4150099	4150199	41502999	4151999	4150799
Item no. (NPT 1/4"):	4150099I	4150199I	41502999I	4151999I	4150799I
Element:	S2	S2	F2	F2	F2-L
Dead volume:	57 ml	69 ml	57 ml	57 ml	108 ml
Weight approx.:	0.28 kg	0.29 kg	0.24 kg	0.29 kg	0.29 kg
permissible explosion group of the external filter area:	IIC	IIC	IIC	IIC *	IIC
permissible explosion group of the internal filter area:	IIC	IIC	IIB	IIB	IIB

AGF-PV- AGF-PV-	30-F25 30-F25-I	30-F25-A 30-F25-A-I	30-F25-L 30-F25-L-I	30-F25-L-A 30-F25-L-A-I	30-AKF 30-AKF-I
Filter fineness:	25 µm	25 µm	25 µm	25 µm	1 µm
Item no. (G1/4):	4150299	4150399	4150499	4150599	4153099
Item no. (NPT 1/4"):	4150299I	4150399I	4150499I	4150599I	4153099I
Element:	F25	F25	F25-L	F25-L	AKF
Dead volume:	57 ml	63 ml	108 ml	117 ml	45 ml
Weight approx.:	0.23 kg	0.24 kg	0.29 kg	0.30 kg	0.23 kg
permissible explosion group of the external filter area:	IIC	IIC	IIC	IIC *	**
permissible explosion group of the internal filter area:	IIB	IIB	IIB	IIB	**

* only in normal operation with connection (closed condensate outlet).

** not approved for use with flammable gases.

Filter elements

Item no.	Model	Material	Filter fineness	Filter surface	Packaging unit	Permissible explosion group of the internal filter area
41010010	S2	Fibreglass	2 µm	80 cm²	5 count	IIC
4101002	S2	Fibreglass	2 µm	80 cm²	25 count	IIC
41030050	F2	PTFE	2 µm	60 cm²	5 count	IIB
41020050	F2-L	PTFE	2 µm	125 cm²	2 count	IIB
41020130	F25	PTFE	25 µm	60 cm²	5 count	IIB
41010120	F25-L	PTFE	25 µm	125 cm²	2 count	IIB
41010130	AKF	Active carbon	1 µm	45 cm²	1 count	not approved for use with flammable gases.

7.1.3 AGF-T-30

Filter including filter element

AGF-T-	30-S2	30-S2-KU	30-F2	30-F2-L	30-F25	30-F25-L
Filter fineness:	2 µm	2 µm	2 µm	2 µm	25 µm	25 µm
Item no.:	4151399	4151499	4151799	4151099	4151199	4151299
Element:	S2	S2KU	F2	F2-L	F25	F25-L
Dead volume:	57 ml	50 ml	57 ml	108 ml	57 ml	108 ml
Weight approx.:	0.41 kg	0.35 kg	0.35 kg	0.43 kg	0.35 kg	0.43 kg
permissible explosion group of the external filter area:	IIC	IIC	IIC	IIC	IIC	IIC
permissible explosion group of the internal filter area:	IIC	IIC	IIB	IIB	IIB	IIB

Filter elements

Item no.	Model	Filter element	Material	Filter fineness	Filter surface	Packaging unit	permissible explosion group of the internal filter area
41010010	S2	Sleeve	Fibreglass	2 µm	80 cm²	5 count	IIC
4101002	S2	Sleeve	Fibreglass	2 µm	80 cm²	25 count	IIC
41010140	S2KU	Sleeve	Fibreglass	2 µm	61 cm²	5 count	IIC
41010150	S2KU	Sleeve	Fibreglass	2 µm	61 cm²	25 count	IIC
41030050	F2	Sintered PTFE	PTFE	2 µm	60 cm²	5 count	IIB
41020130	F25	Sintered PTFE	PTFE	25 µm	60 cm²	5 count	IIB
41020050	F2-L	Sintered PTFE	PTFE	2 µm	125 cm²	2 count	IIB
41010120	F25-L	Sintered PTFE	PTFE	25 µm	125 cm²	2 count	IIB

7.1.4 RAF-PV-30

Filter including filter element

RAF-PV-	30-S2	30-S2-I	30-F25	30-F25-I
Filter fineness:	2 µm	2 µm	25 µm	25 µm
Item no.:	4152199	4152199I	4152299	4152299I
Element:	S2	S2	F25	F25
Connections:	G1/4	NPT 1/4"	G1/4	NPT 1/4"
permissible explosion group of the external filter area:	IIC	IIC	IIB	IIB
permissible explosion group of the internal filter area:	IIC	IIC	IIB	IIB

Filter elements

Item no.	Model	Filter element	Material	Filter fineness	Filter surface	Packaging unit	permissible explosion group of the internal filter area
4101001	S2	Sleeve	Fibreglass	2 µm	80 cm²	5 count	IIC
4101002	S2	Sleeve	Fibreglass	2 µm	80 cm²	25 count	IIC
4102013	F25	PTFE	Sintered PTFE	25 µm	60 cm²	5 count	IIB

7.1.5 ADF-PV-30-L

Filter*

Item no.	Model	Connections
4152099	ADF-PV-30-L	G1/4
4152099I	ADF-PV-30-L-I	NPT 1/4"

* without adsorbent/absorbent.

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

The crossed out wheelie 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

K-AGF-PV-30-A Coalescence Filter	
Dead volume	73 ml
Material – Filter head	PVDF
Material – Filter cover	Glass
Material – Gasket	Viton
Thread	G1/4 or NPT 1/4" (see ordering information)
Weight	0.24 kg
Operating pressure max.	4 bar
Operating temperature max.	100 °C

Fine mesh filter AGF-PV-30	
Material – Filter head	PVDF
Material – Filter cover	Glass
Material – Gasket	Viton
Thread (A)	G1/4 or NPT 1/4" (see ordering information)
Max. operating pressure	4 bar
Max. operating temperature	100 °C
Mechanical load	Tested based on DNV-GL CG0339 vibration class A (0.7g) 2 Hz-13.2 Hz Amplitude ± 1.0 mm 13.2 Hz -100 Hz 0.7g acceleration

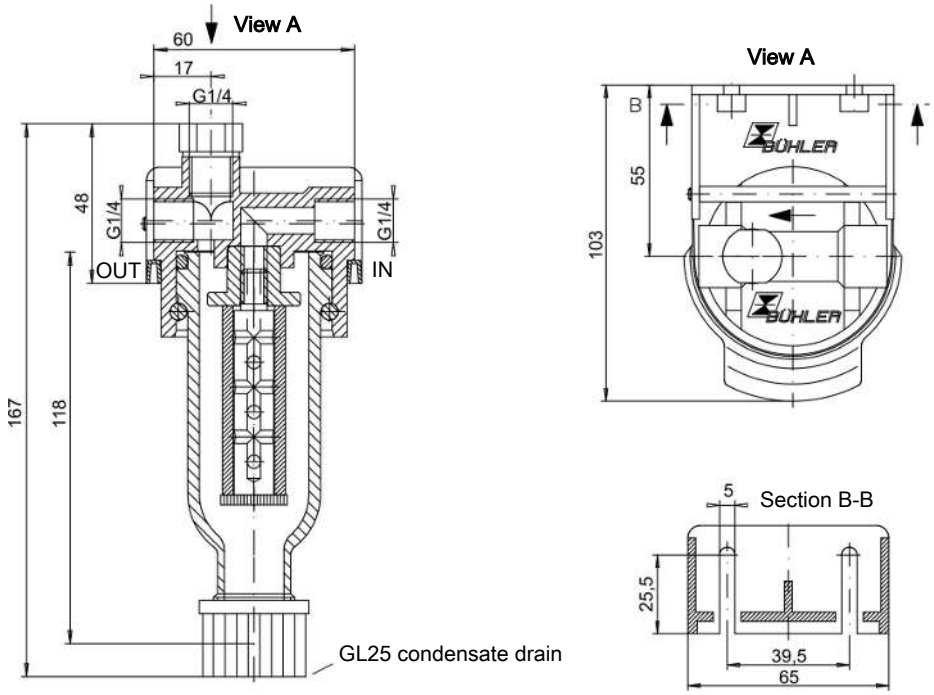
AGF-T-30 Fine mesh filter	
Material – Filter head	PTFE
Material – Filter cover	Glass
Material – Gasket	Viton, PTFE shrouded
Operating pressure max.	4 bar
Operating temperature max.	100 °C

RAF-PV-30 Ambient air filter	
Material – Filter head	PVDF
Material – Filter cover	Glass
Material – Gasket	Viton
Thread (A)	G1/4 or NPT 1/4" (see ordering information)
Weight	approx. 0.28 kg
Operating temperature max.	100 °C

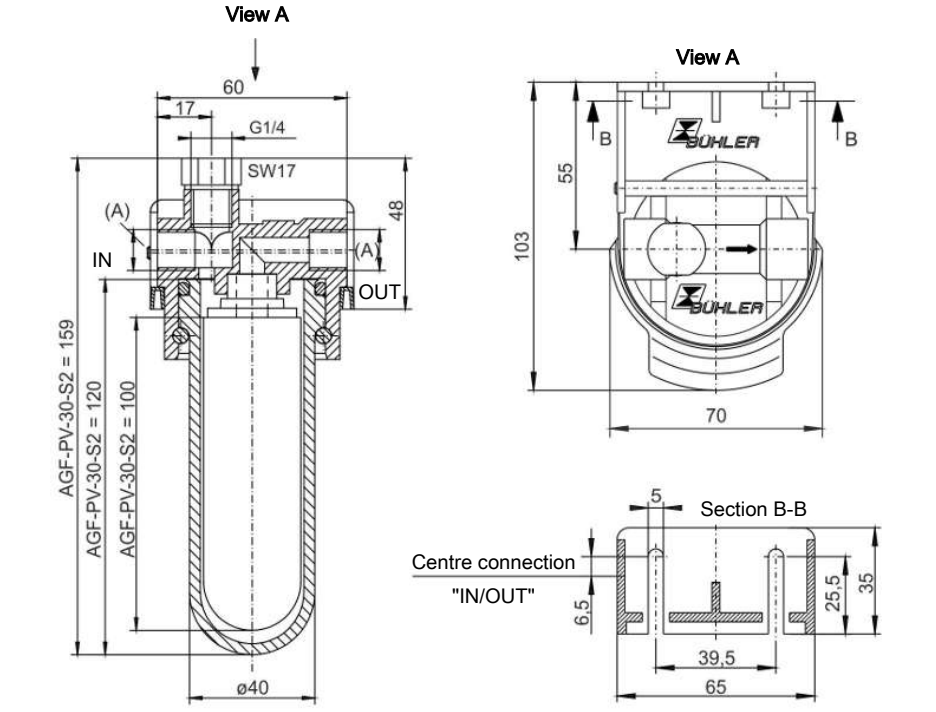
ADF-PV-30-L Ad-/Absorption Filter	
Material – Filter head	PVDF
Material – Filter cover	Glass
Material – Gasket	Viton
Thread	G1/4 or NPT 1/4" (see ordering information)
Weight	approx. 0.3 kg
Fill volume	120 ml
Operating pressure max.	4 bar
Operating temperature max.	100 °C (without adsorbent/absorbent)

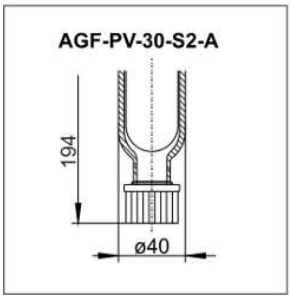
9.2 Dimensions

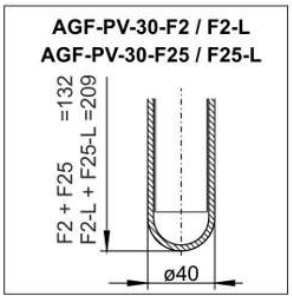
K-AGF-PV-30-A

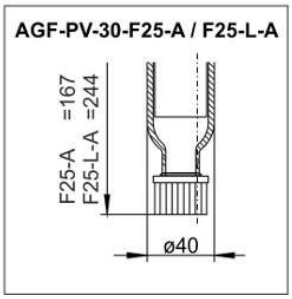


AGF-PV-30

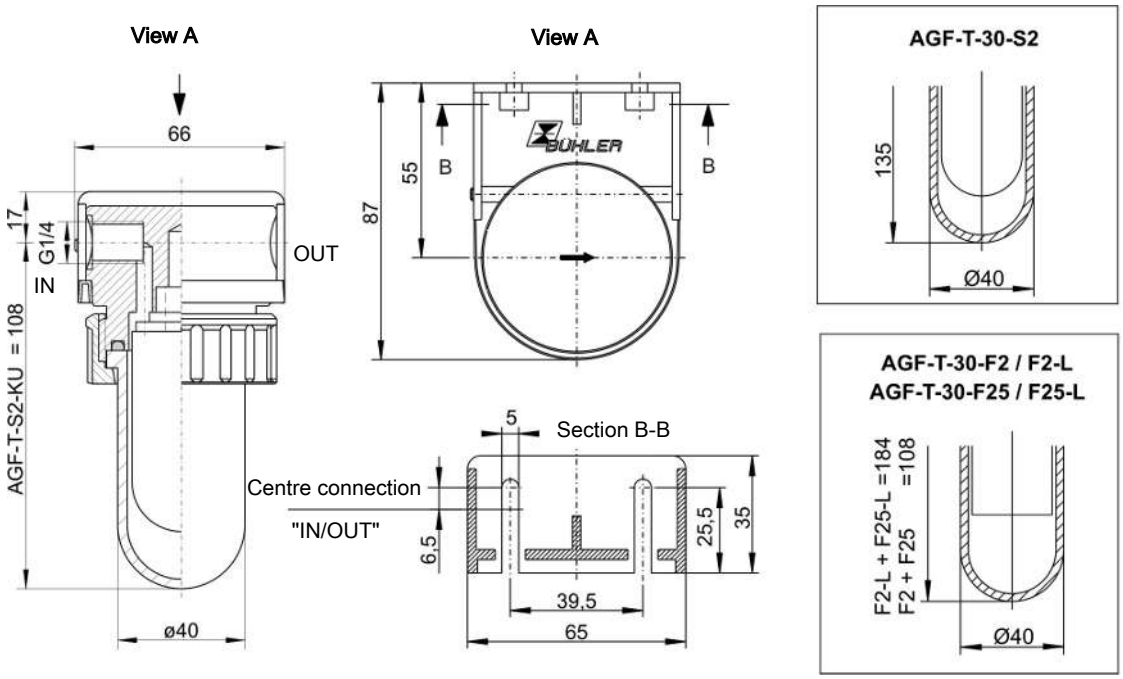




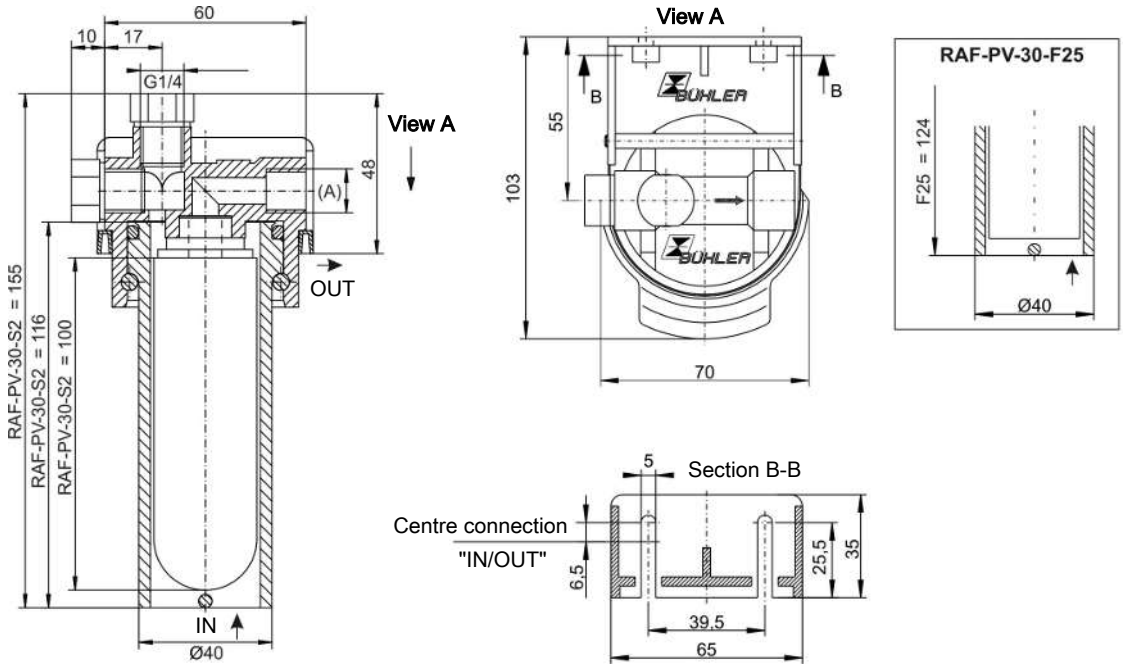




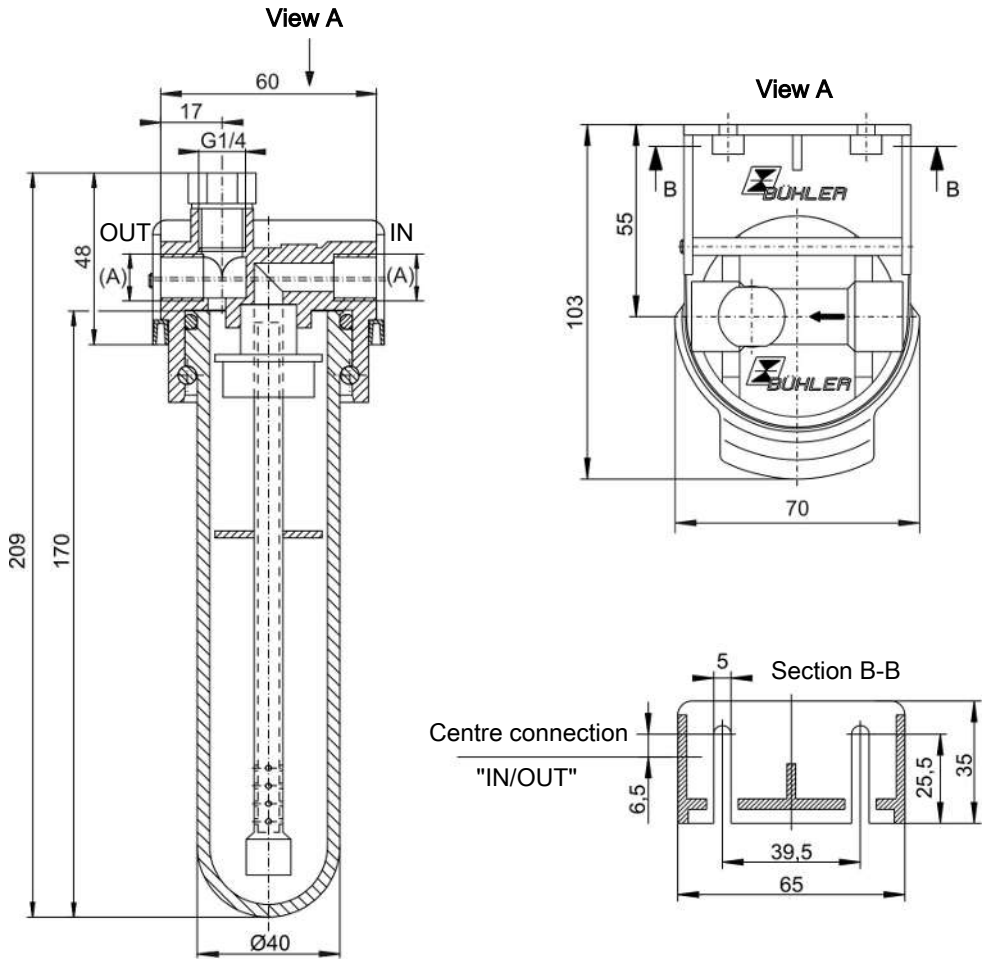
AGF-T-30



RAF-PV-30



ADF-PV-30-L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Section B-B
Centre connection
"IN/OUT"
6,5
25,5
35
39,5
65

10 Attached documents

– Manufacturer Declaration HX410002
– 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: Analysefilter / *Sample gas filter*

Typ / type:
K-AGF-PV-30...-A, -A-I
AGF-PV-30...-S2, -S2-A, -F2, -F2-A, -F2-L, -F2-RA, -F25, -F25-A, -F25-L, -F25-L-A, -0,1-RA
AGF-PV-30...-S2-I, -S2-A-I, -F2-I, -F2-A-I, -F2-L-I, F2-RA-I,-F25-I, -F25-A-I, -F25-L-I, -F25-L-A-I, -0,1-RA-I
AGF-T-30...-S2, -S2-KU, -F2, -F2-L, -F25, -F25-L
RAF-PV-30...-S2, -S2-I, -F25, -F25-I

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 sowie Beiblätter für Sonderversionen 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 and supplements for special versions, 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 15.03.2023

Stefan Eschweiler
Geschäftsführer – *Managing Director*

Frank Pospiech
Geschäftsführer – *Managing Director*

Bühler Technologies GmbH, Harkortstr. 29, D-40880 Ratingen,
Tel. +49 (0) 21 02 / 49 89-0, Fax. +49 (0) 21 02 / 49 89-20
Internet: www.buehler-technologies.com

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-PV-30...-A, -A-I
AGF-PV-30...-S2, -S2-A, -F2, -F2-A, -F2-L, -F2-RA, -F25, -F25-A, -F25-L, -F25-L-A, -0,1-RA
AGF-PV-30...-S2-I, -S2-A-I, -F2-I, -F2-A-I, -F2-L-I, F2-RA-I, -F25-I, -F25-A-I, -F25-L-I, -F25-L-A-I, -0,1-RA-I
AGF-T-30...-S2, -S2-KU, -F2, -F2-L, -F25, -F25-L
RAF-PV-30...-S2, -S2-I, -F25, -F25-I

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 and supplements for special versions, 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, 15.03.2023

Stefan Eschweiler
Managing Director

Frank Pospiech
Managing Director

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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	

Ansprechpartner/ Person in charge

Name/ Name	
Abt./ Dept.	
Tel./ Phone	
E-Mail	

Gerät/ Device	
Anzahl/ Quantity	
Auftragsnr./ Order No.	

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	☐ gesundheitsgefährdend/ harmful to health	☐ gesundheitsschädlich/ health hazard	☐ umweltgefährdend/ 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 comission an external service provider to clean the goods and invoice it to your account.

Firmenstempel/ Company Sign

Datum/ Date

rechtsverbindliche Unterschrift/ Legally binding signature

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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 assembles 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.

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