10 随附文档

- 类型审核证书IBExU17ATEXB007X
- 证书IECEx IBE 17.0002X
- 符合性声明 KX460030
- 化学抗腐蚀性表
- 附件461099数据页
- RMA -去污声明

[1] TYPE EXAMINATION CERTIFICATE - Translation

[2] Equipment
of equipment-groups I and II, equipment-categories M2 and 2 plus 3

[3] Type examination certificate number **IBExU17ATEXB007 X** | Issue 0

[4] Product: **Sample Gas Probe**
Type: GAS 222.xx Ex2

[5] Manufacturer: Bühler Technologies GmbH

[6] Address: Harkortstr. 29
40880 Ratingen
GERMANY

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] IBExU Institut für Sicherheitstechnik GmbH certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in the confidential test report IB-16-3-053.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:
EN 60079-0:2012 + A11:2013 EN 60079-7:2015
except in respect of those requirements listed at item [18] of the schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.

[11] This type examination certificate relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured or supplied.

[12] The marking of the product shall include the following:

Ⓔx II 3G Ex ec ic mb IIC T3/T4 Gc

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

Tel: + 49 (0) 37 31 / 38 05 0
Fax: + 49 (0) 37 31 / 38 05 10

By order

Dipl.-Ing. [FH] A. Henker

IBExU
Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg/Sachsen
Telefon (03731) 3805-0
Telefax (03731) 38 05 10

- Stamp -

Certificates without signature and stamp are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Freiberg, 2017-08-24

[13] **Schedule**

[14] **Certificate number IBExU17ATEXB007 X** | Issue 0

[15] **Description of product**

At the gas analysis the sampling point is a critical interface between the process and the analysis system. The probes are used to take gas samples from a sampling point. They can be unheated or heated. The probes are equipped with an in-situ filter or a downstream filter or with a combination of both. Some probes have an integrated shut off ball valve (manual or pneumatic) for the blowback of the filter. Optionally, the probes can be equipped with a calibration gas port, solenoid valves and a pressure vessel. The standard flanges for mounting are DN3" - 150 and DN65 PN6, other flanges are possible due to the maximum operating pressure.

Type code:

Item number IECEx GAS 222 Ex2

4	6	2	2	2																

		Sample probe basis unit
1	0	GAS 222.10
1	1	GAS 222.11
3	0	GAS 222.30
3	5	GAS 222.35-U
2	0	GAS 222.20
2	1	GAS 222.21
3	1	GAS 222.31
3	5	GAS 222.35
		Junction box
0		No
1		Yes
		Flange
0	1	Flange DN65 PN6
0	2	Flange DN3"-150
x	x	others
		Hazardous area Outside and Inside
9	2	Ex-Zone 2 inside
2	9	Ex-Zone 2 outside
2	2	Ex-Zone 2 outside and inside
		Temperature class
3		T3
4		T4
		Power supply sample probe
0		None (only for GAS 222.10/11/30/35-U)
3		115/230V (only for GAS 222.20/21/31/35)
		Low temparature alarm
0		None (only for GAS 222.10/11/30/35-U)
1		opener (only for GAS 222.20/21/31/35) (marked with "ic")
2		closer (only for GAS 222.20/21/31/35) (marked with "ic")
		Calibration gas port
0		No
1		6mm
2		6mm + check valve
3		1/4
4		1/4 + check valve
		Capacitive vessel
0		No
1		Yes (not for zone 2 inside)
		Valve for pressurized air
0		Ball valve
1		solenoid valve 115V (marked with "mb")
2		solenoid valve 230V (marked with "mb")
3		solenoid valve 24V (marked with "mb")
9		without
		Pneumatic actuator for internal ball valve
0		No
1		Mono stable depressurized open (only for GAS 222.11/30/21/31)
2		Mono stable depressurized closed (only for GAS 222.11/30/21/31)
		Limit switch for pneumatic actuator
0		No
1		Yes (only for GAS 222.11/30/21/31)
		Solenoid valve for pneumatic actuator
0		No
1		Yes (only for GAS 222.11/30/21/31) (marked with "mb")

Intrinsically safe thermo alarm:
U_i = 30 V
I_i = 0.1 A

[16] **Test report**
The test results are recorded in the confidential test report IB-16-3-053 of 2017-08-24.
The test documents are part of the test report and they are listed there.

Summary of the test results
The Sample Gas Probe of the type GAS 222.xx Ex2 fulfils the requirements of the type of protection increased safety „e" for explosion protected equipment of group II and category 3 G.

[17] **Specific conditions of use**
The plug connector is to be installed and operated corresponding to the low risk of mechanical danger in accordance with IEC 60079-0.

High charge producing processes and manual rubbing must be prevented.

The sample gas probe can be used in an ambient temperature range of –20 °C up to +80 °C.

The plug connectors may only be used for fixed installation. The operating company must provide a suitable stress relief.

[18] **Essential health and safety requirements**
In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report: None

[19] **Drawings and Documents**
The documents are listed in the test report.

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order

Dipl.-Ing. [FH] A. Henker

Freiberg, 2017-08-24

[1] TYPE EXAMINATION CERTIFICATE - Translation

[2] Equipment
of equipment-groups I and II, equipment-categories M2 and 2 plus 3

[3] Type examination certificate number **IBExU17ATEXB007 X** | Issue 1

[4] Product: **Sample Gas Probe**
Type: GAS 222.xx Ex2

[5] Manufacturer: Bühler Technologies GmbH

[6] Address: Harkortstr. 29
40880 Ratingen
GERMANY

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] IBExU Institut für Sicherheitstechnik GmbH certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in the confidential test report IB-21-3-0003.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:
EN 60079-0:2012 + A11:2013 EN IEC 60079-7:2015/A1:2018
except in respect of those requirements listed at item [18] of the schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.

[11] This type examination certificate relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured or supplied.

[12] The marking of the product shall include the following:

Ⓔx II 3G Ex ec ic mb IIC T3 or T4 Gc

Different variants of the marking can be marked on the unit and result from the type code.

IBExU Institut für Sicherheitstechnik GmbH
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09599 Freiberg, GERMANY

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Telefax (03731) 38 05 10
- Stamp -

Freiberg, 2021-03-09

[13] **Schedule**

[14] **Certificate number IBExU17ATEXB007 X** | Issue 1

[15] **Description of product**

At the gas analysis the sampling point is a critical interface between the process and the analysis system. The probes are used to take gas samples from a sampling point. They can be unheated or heated. The probes are equipped with an in-situ filter or a downstream filter or with a combination of both. Some probes have an integrated shut off ball valve (manual or pneumatic) for the blowback of the filter. Optionally, the probes can be equipped with a calibration gas port, solenoid valves and a pressure vessel. The standard flanges for mounting are DN3" - 150 and DN65 PN6, other flanges are possible due to the maximum operating pressure.

Type code:

4 6 2 2 2 | | | | | | | | | | | | | | | | | | |

	sample probe basis unit
1 0	GAS 222.10
1 1	GAS 222.11
3 0	GAS 222.30
3 5	GAS 222.35-U
2 0	GAS 222.20
2 1	GAS 222.21
3 1	GAS 222.31
3 5	GAS 222.35

	junction box
0	no
1	yes

	flange
0 1	flange DN65 PN6
0 2	flange DN3"-150
x x	others

	hazardous area outside and inside
9 2	Ex-Zone 2 inside
2 9	Ex-Zone 2 outside
2 2	Ex-Zone 2 outside and inside

	temperature class
3	T3
4	T4

	power supply sample probe
0	none (only for GAS 222.10/11/30/35-U)
3	115/230V (only for GAS 222.20/21/31/35)

	low temparature alarm
0	none (only for GAS 222.10/11/30/35-U)
1	opener (only for GAS 222.20/21/31/35) (marked with "ic")
2	closer (only for GAS 222.20/21/31/35) (marked with "ic")

	calibration gas port
0	no

1								6mm
2								6mm + check valve
3								1/4
4								1/4 + check valve
								pressure vessel
							0	no
							1	yes
								purge valve
						0		ball valve
						1		solenoid valve 110V (marked with "mb")
						2		solenoid valve 230V (marked with "mb")
						3		solenoid valve 24V (marked with "mb")
						9		without
								pneumatic actuator for internal ball valve
					0			no
					1			mono stable depressurized open (only for GAS 222.11/30/21/31)
					2			mono stable depressurized closed (only for GAS 222.11/30/21/31)
								limit switch for pneumatic actuator
				0				no
				1				yes (only for GAS 222.11/30/21/31)
								solenoid valve for pneumatic actuator
			0					no
			1					110V (only for GAS 222.11/30/21/31) (marked with "mb")
			2					230V (only for GAS 222.11/30/21/31) (marked with "mb")
			3					24V (only for GAS 222.11/30/21/31) (marked with "mb")

Intrinsically safe thermo alarm:
U_i = 30 V
I_i = 0.1 A

Variation compared to issue 0 of this certificate:

Variation of type code

[16] **Test report**
The test results are recorded in the confidential test report IB-21-3-0003 of 2021-02-18.
The test documents are part of the test report and they are listed there.

Summary of the test results
The Sample Gas Probe of the type GAS 222.xx Ex2 fulfils the requirements of the type of protection increased safety „e“ for explosion protected equipment of group II and category 3G.

[17] **Specific conditions of use**
The plug connector is to be installed and operated corresponding to the low risk of mechanical danger in accordance with EN 60079-0.

High charge producing processes and manual rubbing must be prevented.

The sample gas probe can be used in an ambient temperature range of –20 °C up to +80 °C.

The plug connectors may only be used for fixed installation. The operating company must provide a suitable stress relief.

[18] **Essential health and safety requirements**
In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report: None

[19] **Drawings and Documents**
The documents are listed in the test report.

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order

Dipl.-Ing. [FH] A. Henker

Freiberg, 2021-03-09

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx IBE 17.0002X

Issue No: 0

Certificate history:
Issue No. 0 (2017-06-30)

Status: **Current**

Date of Issue: **2017-06-30**

Applicant: **Bühler Technologies GmbH**
Harkortstr. 29
40880 Ratingen
Germany

Equipment: **Sample Gas Probes Serie 222.xx Ex 2**
Optional accessory:

Type of Protection: **Ex e, Ex m**

Marking:

Ex ec ic mb IIC T3/T4 Gc

For further information see typecode in annex..

Approved for issue on behalf of the IECEx Certification Body: Prof. Dr. Tammo Redeker

Position: Head of Certification Body

Signature:
(for printed version)

Date: 2017-06-30

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

IECEx Certificate of Conformity

Certificate No: IECEx IBE 17.0002X Issue No: 0

Date of Issue: **2017-06-30** Page 2 of 4

Manufacturer: **Bühler Technologies GmbH**
Harkortstr. 29
40880 Ratingen
Germany

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

DE/IBE/ExTR16.0018/00

Quality Assessment Report:

DE/BVS/QAR16.0002/01

IECEx Certificate of Conformity

Certificate No: IECEx IBE 17.0002X Issue No: 0

Date of Issue: **2017-06-30** Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

In gas analysis the sample point is a critical interface between the process and the analysis system. Probes are used to take sample gas from the sample point, they can be unheated or heated. They are equipped with a downstream or an in-situ filter or with a combination of both.

Some probes have an integrated shut off ball valve (manual or pneumatic) for blowblack the filter.

Optional they can be equipped with a calibration gas port, solenoid valves and a pressure vessel.

The standard flanges for mounting are DN3" - 150 and DN65 PN6, others a possible under regarding of the max. operating pressure.

Rated ambient temperature range: –20 °C up to +80 °C

Intrinsic safe thermos alert:

U_i = 30 V

I_i = 0.1 A

Typecode in Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

The plug connector is to be installed and operated in accordance with IEC 60079-0 in accordance with the risk of mechanical hazards "low".

High charge producing processes and manual rubbing must be prevented.

The Sample Gas Probe can be used in an ambient temperature range of –20 °C up to +80 °C.

The plug connectors may only be used for fixed installation. The operator must provide suitable stress relief.

IECEx Certificate of Conformity

Certificate No: IECEx IBE 17.0002X Issue No: 0

Date of Issue: **2017-06-30**

Annex:

Annex IECExIBE17_0002X_0.pdf

IECEx Certificate of Conformity - Annex

Certificate No:	IECEx IBE 17.0002X	Issue No: 0
Date of Issue:	2017-06-30	Page 1 of 1

Item number IECEx GAS 222 Ex2

4	6	2	2	2															

																				Sample probe basis unit
1	0																			GAS 222.10
1	1																			GAS 222.11
3	0																			GAS 222.30
3	5																			GAS 222.35-U
2	0																			GAS 222.20
2	1																			GAS 222.21
3	1																			GAS 222.31
3	5																			GAS 222.35
		0																		**Junction box**
		0																		No
		1																		Yes
			0	1																**Flange**
			0	2																Flange DN65 PN6
			x	x																Flange DN3"-150
					9	2														others
					2	9														**Hazardous area Outside and Inside**
					2	2														Ex-Zone 2 inside
							3													Ex-Zone 2 outside
							4													Ex-Zone 2 outside and inside
								0												**Temperature class**
								3												T3
									0											T4
									3											**Power supply sample probe**
										0										None (only for GAS 222.10/11/30/35-U)
										1										115/230V (only for GAS 222.20/21/31/35)
										2										**Low temparature alarm**
											0									None (only for GAS 222.10/11/30/35-U)
											1									opener (only for GAS 222.20/21/31/35) (marked with "ic")
											2									closer (only for GAS 222.20/21/31/35) (marked with "ic")
												0								**Calibration gas port**
												1								No
												2								6mm
												3								6mm + check valve
												4								1/4
													0							1/4 + check valve
													1							**Capacitive vessel**
														0						No
														1						Yes (not for zone 2 inside)
															0					**Valve for pressurized air**
															1					Ball valve
															2					solenoid valve 115V (marked with "mb")
															3					solenoid valve 230V (marked with "mb")
															9					solenoid valve 24V (marked with "mb")
																0				**Pneumatic actuator for internal ball valve**
																1				No
																2				Mono stable depressurized open (only for GAS 222.11/30/21/31)
																	0			Mono stable depressurized closed (only for GAS 222.11/30/21/31)
																	1			**Limit switch for pneumatic actuator**
																		0		No
																		1		Yes (only for GAS 222.11/30/21/31)
																			0	**Solenoid valve for pneumatic actuator**
																			0	No
																			1	Yes (only for GAS 222.11/30/21/31) (marked with "mb")

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx IBE 17.0002X**	Page 1 of 5	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2017-06-30)
Date of Issue:	2021-03-09		
Applicant:	**Bühler Technologies GmbH** Harkortstr. 29 40880 Ratingen **Germany**		
Equipment:	**Sample Gas Probes Serie 222.xx Ex 2**		
Optional accessory:			
Type of Protection:	**Ex e, Ex m**		
Marking:	Ex ec ic mb IIC T3 or T4 Gc For further information see typecode in annex.		

Approved for issue on behalf of the IECEx Certification Body: **Alexander Henker**

Position: **Deputy Head of department Certification Body**

Signature: (for printed version)

Date: 2021-03-09

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg
Germany

IECEx Certificate of Conformity

Certificate No.: **IECEx IBE 17.0002X**

Issue No: 1

Date of issue: 2021-03-09

Manufacturer: **Bühler Technologies GmbH**
Harkortstr. 29
40880 Ratingen
Germany

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

DE/IBE/ExTR16.0018/00 DE/IBE/ExTR16.0018/01

Quality Assessment Report:

DE/BVS/QAR16.0002/04

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

In gas analysis the sample point is a critical interface between the process and the analysis system. Probes are used to take sample gas from the sample point, they can be unheated or heated. They are equipped with a downstream or an in-situ filter or with a combination of both.

Some probes have an integrated shut off ball valve (manual or pneumatic) for blowblack the filter.

Optional they can be equipped with a calibration gas port, solenoid valves and a pressure vessel.

The standard flanges for mounting are DN3" - 150 and DN65 PN6, others a possible under regarding of the max. operating pressure.

Rated ambient temperature range: -20 °C up to +80 °C

Intrinsic safe thermos alert:

U_i = 30 V

I_i = 0.1 A

Typecode in Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:
The plug connector is to be installed and operated in accordance with IEC 60079-0 in accordance with the risk of mechanical hazards "low".

High charge producing processes and manual rubbing must be prevented.

The Sample Gas Probe can be used in an ambient temperature range of -20 °C up to +80 °C.

The plug connectors may only be used for fixed installation. The operator must provide suitable stress relief.

IECEx Certificate of Conformity

Equipment (continued):

Change in type code

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Change in type code

Annex:

Annex IECExIBE17_0002X_1.pdf

IECEx Certificate of Conformity - Annex

Certificate No:	IECEx IBE 17.0002X	Issue No: 1
Date of Issue:	2021-03-09	Page 1 of 2

4	6	2	2	2															

sample probe basis unit	
10	GAS 222.10
11	GAS 222.11
30	GAS 222.30
35	GAS 222.35-U
20	GAS 222.20
21	GAS 222.21
31	GAS 222.31
35	GAS 222.35

junction box	
0	no
1	yes

flange	
01	flange DN65 PN6
02	flange DN3"-150
xx	others

hazardous area outside and inside	
92	Ex-Zone 2 inside
29	Ex-Zone 2 outside
22	Ex-Zone 2 outside and inside

temperature class	
3	T3
4	T4

power supply sample probe	
0	none (only for GAS 222.10/11/30/35-U)
3	115/230V (only for GAS 222.20/21/31/35)

low temparature alarm	
0	none (only for GAS 222.10/11/30/35-U)
1	opener (only for GAS 222.20/21/31/35) (marked with "ic")
2	closer (only for GAS 222.20/21/31/35) (marked with "ic")

calibration gas port	
0	no
1	6mm
2	6mm + check valve
3	1/4
4	1/4 + check valve

IECEx Certificate of Conformity - Annex

								pressure vessel
0								no
1								yes
								purge valve
		0						ball valve
		1						solenoid valve 110V (marked with "mb")
		2						solenoid valve 230V (marked with "mb")
		3						solenoid valve 24V (marked with "mb")
		9						without
								pneumatic actuator for internal ball valve
			0					no
			1					mono stable depressurized open (only for GAS 222.11/30/21/31)
			2					mono stable depressurized closed (only for GAS 222.11/30/21/31)
								limit switch for pneumatic actuator
				0				no
				1				yes (only for GAS 222.11/30/21/31)
								solenoid valve for pneumatic actuator
					0			no
					1			110V (only for GAS 222.11/30/21/31) (marked with "mb")
					2			230V (only for GAS 222.11/30/21/31) (marked with "mb")
					3			24V (only for GAS 222.11/30/21/31) (marked with "mb")

EU-Konformitätserklärung
EU-declaration of conformity

Hiermit erklärt Bühler Technologies GmbH, dass die nachfolgenden Produkte den wesentlichen Anforderungen der Richtlinie

Herewith declares Bühler Technologies GmbH that the following products correspond to the essential requirements of Directive

2014/34/EU
(Atex)

in ihrer aktuellen Fassung entsprechen.

in its actual version.

Produkt / products: Gasentnahmesonde / *Sample gas probe*
Typ / type: GAS 222.20 Ex2, GAS 222.21 Ex2
GAS 222.31 Ex2, GAS 222.35 Ex2

Die Produkte werden entsprechend der derzeitig gültigen Atex-Richtlinie innerhalb der internen Fertigungskontrolle folgendermaßen gekennzeichnet:
The products are marked according to the currently valid Atex directive during internal control of production:

Atex: Ⓔx II 3G Ex ec ic mb[1] IIC T3/T4 Gc
IECEx: Ex ec ic mb[1] IIC T3/T4 Gc
[1] Nur bei Varianten mit Magnetventil/for versions with solenoid valve

Die Eignung dieses Produkts für die Zone 2 wurde durch eine Baumusterprüfbescheinigung mit der Nummer IBExU17ATEXB007 X festgestellt.

Die Betriebsanleitung zu diesem Produkt beinhaltet besondere Installations- und Betriebsbedingungen und sind für die sichere Anwendung zu beachten.

Gasentnahmesonden sind zum Einbau in Gasanalysesystemen bestimmt.

This product's suitability for Zone 2 was determined by type-examination certificate number IBExU17ATEXB007 X.

The operating instructions for this product contains special installation and operating conditions and must be observed to ensure safe operation.

Sample gas probes are intended for installation in gas-analysis systems.

Zur Beurteilung der Konformität wurden folgende harmonisierte Normen herangezogen:
For the assessment of conformity the following standards have been used:

EN 60079-0:2012 + A11:2013 **EN IEC 60079-7 + A1:2018**

Der Hersteller hat die Übereinstimmung des Gerätes mit aktuelleren Normenausgaben als in der Baumusterprüfbescheinigung aufgeführt geprüft und die Konformität festgestellt:
The manufacturer has checked the compliance of the device with more current standards than those listed in the type examination certificate and has established conformity:

EN IEC 60079-0:2018

Dokumentationsverantwortlicher für diese Konformitätserklärung 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 25.02.2021

Stefan Eschweiler
Geschäftsführer – *Managing Director*

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化学抗腐蚀性表

分析技术

公式	介质	浓度	特氟龙® PTFE	PCTFE	PEEK	PVDF	FEP	FFKM	氟橡胶® FPM	V4A	玻璃
CH_3COCH_3	Acetone丙酮		1/1	1/3	1/1	3/4	(1)	1/1	4/4	1/1	1/1
C_6H_6	Benzol苯		1/1	1/3	1/1	1/3	1/1	1/1	3/3	1/1	1/1
CI_2	Chlorine氯	10 %潮湿	1/1	0/0	4/4	2/2	1/1	1/1	3/0	4/4	1/1
CI_2	Chlorine氯	97 %	1/0	1/3	4/4	1/1	1/1	1/0	1/1	1/1	1/0
C_2H_6	Ethane乙烷		1/0	0/0	1/0	2/0	-	1/0	1/0	2/0	1/0
C_2H_5OH	Ethanol乙醇	50 %	1/1	1/3	1/1	1/1	1/1	1/1	2/2	1/0	1/1
C_2H_4	Ethylene乙烯		1/0	0/0	0/0	1/0	1/1	1/0	1/0	1/0	1/0
C_2H_2	Ethyne乙烯		1/0	0/0	0/0	1/0	1/1	1/0	2/0	1/0	1/0
$C_6H_5C_2H_5$	Ethylbenzene乙苯		1/0	0/0	0/0	1/1	1/1	1/0	2/0	1/0	1/0
HF	Hydrofluoric acid氟化氢		1/0	0/0	0/0	2/2	(1)	2/0	4/0	3/4	1/0
CO_2	Carbon dioxide二氧化碳		1/1	0/0	1/0	1/1	(1)	1/0	1/1	1/1	1/1
CO	Carbon monoxide一氧化碳		1/0	0/0	1/1	1/1	-	1/0	1/0	1/1	1/0
CH_4	Methane甲烷	技术纯	1/1	0/0	1/1	1/0	1/1	1/0	1/1	1/1	1/1
CH_3OH	Methanol甲醇		1/1	1/1	1/1	1/1	1/1	1/1	3/4	1/1	1/1
CH_3CI_2	Methylene chloride二氯甲烷		1/0	2/0	1/0	1/0	1/1	1/0	3/0	1/1	1/0
H_3PO_4	Phosphoric acid磷酸	1-5 %	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
H_3PO_4	Phosphoric acid磷酸	30 %	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
C_3H_8	Propane丙烷	气态	1/1	0/0	1/0	1/1	1/1	1/0	1/0	1/0	1/1
C_3H_6O	Propylene oxide丙烯腈		1/0	0/0	0/0	2/4	1/1	2/0	4/0	1/0	1/0
HNO_3	Nitric acid硝酸	1-10 %	1/1	1/0	1/1	1/1	1/1	1/0	1/1	1/1	1/1
HNO_3	Nitric acid硝酸	50 %	1/1	1/0	3/3	1/1	1/1	1/0	1/0	1/2	1/1
HCI	Hydrochloric acid盐酸	1-5 %	1/1	1/1	1/0	1/1	1/1	1/1	1/1	2/4	1/1
HCI	Hydrochloric acid盐酸	35 %	1/1	1/1	1/0	1/1	1/1	1/1	1/2	2/4	1/1
O_2	Oxygen氧气		1/1	0/0	1/0	1/1	1/1	1/1	1/2	1/1	1/1
SF_6	Sulphur hexafluoride六氟化硫		1/0	0/0	1/0	0/0	0/0	1/0	2/0	0/0	1/0
H_2SO_4	Sulfuric acid硫酸	1-6 %	1/1	1/1	2/2	1/1	1/1	1/1	1/1	1/2	1/1
H_2S	Hydrogen sulphide硫化氢		1/1	1/1	0/0	1/1	1/0	1/1	4/4	1/1	1/1
N_2	Nitrogen氮气		1/1	0/0	1/0	1/1	1/1	1/0	1/1	1/0	1/1
$C_6H_5C_2H_3$	Styrene苯乙烯		1/1	0/0	1/0	1/0	1/0	1/0	3/0	1/0	1/1
$C_6H_5CH_3$	Toluol (methylbenzene) 甲苯（甲基苯）		1/1	0/0	1/0	1/1	1/1	1/1	3/3	1/1	1/1
H_2O	Water水		1/1	0/0	1/1	1/1	1/1	1/1	1/1	1/1	1/1
H_2	Hydrogen氢气		1/0	1/0	1/0	1/0	(1)	1/0	1/0	1/0	1/0

0 - 无说明/不能判断

1 - 极好的耐抗性/适用

2 - 好的耐抗性/适用

3 - 有限制适用

4 - 不适用

( ) - 估计值

每种介质须说明2个值。左侧数字=+20° C时的值，右侧数字=+50° C时的值。

来源：Bürkle GmbH:化学耐受性列表， https://www.buerkle.de［访问时间：2026年2月12日］。

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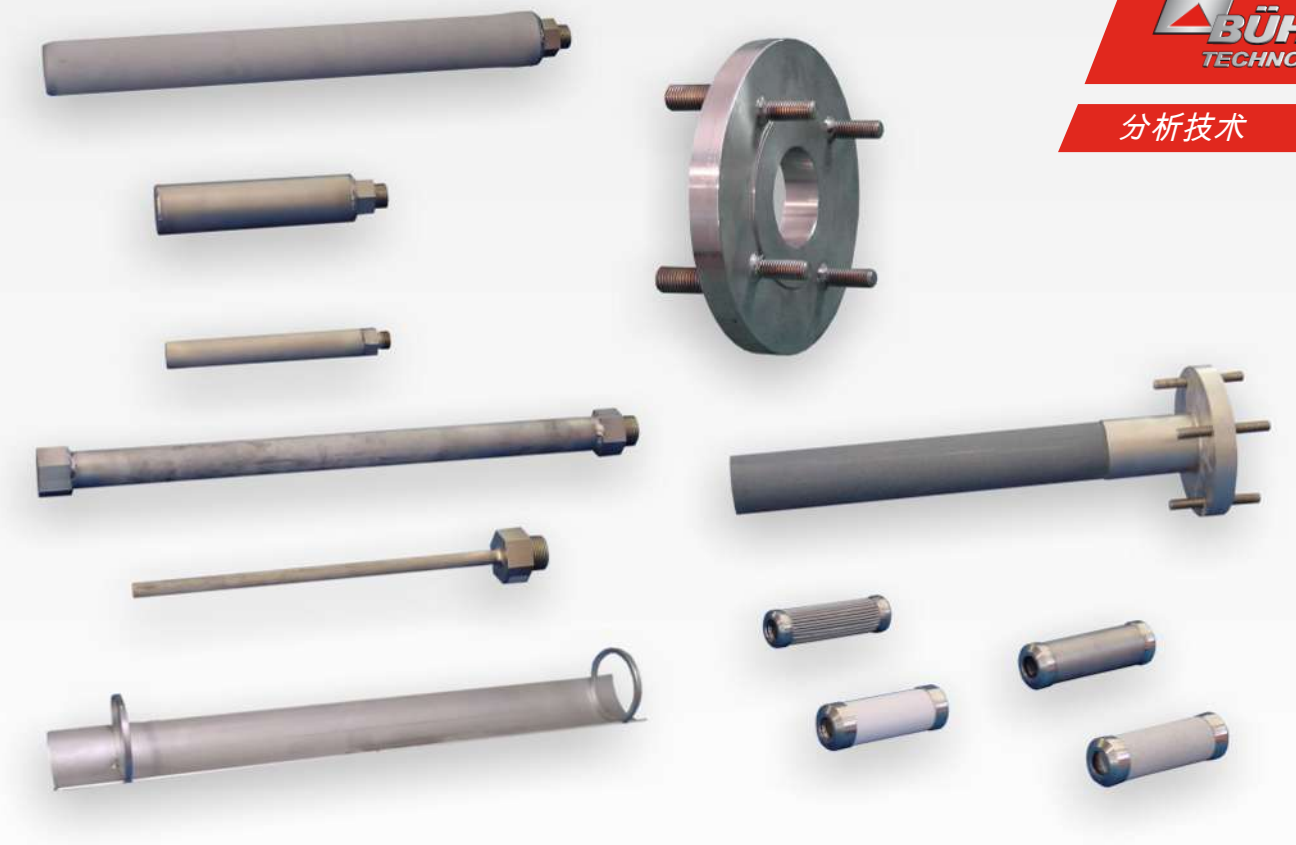

附件用于气体取样探头 GAS 222

气体分析是众多应用领域中实现安全且有效的控制流程、环保和质量保证的关键。对分析结果的再现性和准确性具有决定性影响的是在提取气体分析中对样气的采样点的设计。

从样气的组成中可得到对探头的过滤能力、耐蚀性和功能性装备的个性化需求。为满足这一需求，GAS探头系列配备了丰富的配件选择。

- 采样管
- 进气过滤器
- 延长管线
- 排气过滤器
- 连接法兰
- 反冲洗控制

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附件概述和功能

反冲洗（加热选件）

如果样品气体的粉尘含量很高，随着时间的推移，颗粒会沉降在过滤器中。为防止堵塞，入口过滤器可配备反冲洗装置，该装置可通过定时自动或手动方式，使压缩空气逆向通过过滤器，实现高效清洁。

除雾器

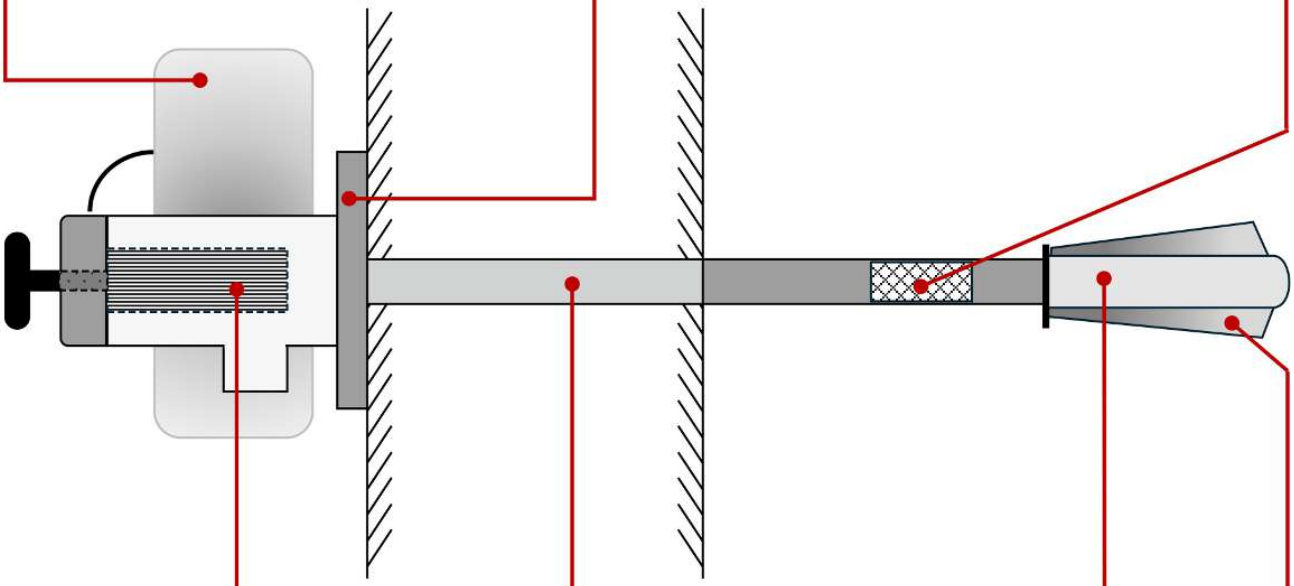
如果工艺气体中含有大量水分或气溶胶，则始终需要使用除雾器或除雾器。它由金属丝网组成，由于惯性较大，液滴会凝结在金属丝网上，而气体则不受阻碍地流过金属丝网。这意味着在冷凝液流回工艺过程的同时，会对样品气体进行初步干燥。

冲洗气体接口

为使用惰性气体或仪表空气冲洗探头，专用探头上配备有吹扫气接口。

连接法兰

探头本身有一个DIN或ANSI法兰。有多种适配器法兰可确保与工艺连接相适应。



排气过滤器

排气过滤器直接位于探头内，适用于2克/米^{3}以下的低粉尘负荷。它可以与进气过滤器结合使用，从而提高运行的可靠性。使用手柄即可轻松、快速地更换过滤器，无需工具。

采样管（选件进气过滤器）

采样管伸入工艺流程中，可用于各种温度和介质阻力。为去除工艺气体中的颗粒，可在此处连接一个进气过滤器。在粉尘量非常大的情况下，也可以对进气过滤器进行反冲洗。

延长管线

延长管线位于探头和采样管或进气过滤器之间。它用于弥合探头与采样点（如穿过烟囱壁）的工艺连接之间的间隙。还可以加热延长管线，以防止结露。

导流板

为了保护进气过滤器不受磨损和颗粒沉积物的影响，可在过滤器上安装导流板，使水流偏转。

订购提示

下列页面列出了与探头基础型号配套使用的附件，共同构成完整功能的探头系统。探头基本型决定了探头可选的选件。反冲洗控制选项已由型号代码定义。其他可选附件见相应表格：

表格1:反冲洗控制和延长管线

表格2:采样管

表格3:排气过滤器

表格4:进气过滤器

表格5:附件 - 连接法兰、螺旋接头

表格6:耗材和附件

各附件及其功能概览见上一页的图示。

限制和提示

集成于探头控制器中的反冲洗控制

集成在探头控制器中的反冲洗控制器很常见。只需在探头上设置一次反冲洗的时间和持续时间等参数，然后就会自动进行。可以通过电子方式读出控制器的和反冲洗的状态。如有需要，还可将单独的RSS反冲洗控制连接到探头上，以便在探头之外的位置进行手动反冲洗。

通过附件对类别/区域的限制

为了于易爆性危险区域中安全操作防爆探头，我们明确推荐使用标有防爆标志的附件。结合我们的防爆探头，对其进行了仔细的安全性评估。对于使用未经比勒在防爆保护、功能或符合性方面批准的附件或组件，比勒不承担任何责任。使用未列出的附件，风险自负，并可能损害安全。法定责任条例不受此影响。

型号GAS 222	带附件	气体	粉尘	气体和粉尘 （分开的区域）
		采样区/工作区		
11 Ex1, 21 Ex1, 30 Ex1, 31 Ex1, 35 Ex1, 35-U Ex1	蓄压器PAV 01 （产品编号46222PAV配有相关配件）	1***区/1区	20区/21区	20区/1区
11 Ex1, 21 Ex1, 30 Ex1, 31 Ex1	用于进气过滤器的导流板	1区/1区	21区/21区	1区/21区
11 Ex1, 21 Ex1, 30 Ex1, 31 Ex1	陶瓷入口过滤器* （产品编号46222307, 46222307 F, 46222307C, 46222330, 46222330C）	2区/1区	20区/21区	20区/1区 或 2区/21区
11 Ex1, 20 Ex1, 21 Ex1	陶瓷出口过滤器* （产品编号46222026, 46222026P）	2区/1区	20区/21区	20区/1区 或 2区/21区
11 Ex1, 20 Ex1, 21 Ex1	采样管 （产品编号46222001XXXX, 46222006XXXX, 46222004XXXX, 46222016XXXX）	0区/1区	无区/21区	0区/21区
11 Ex1, 20 Ex1, 21 Ex1	陶瓷采样管** （产品编号46222002XXXX）	2区/1区	无区/21区	2区/21区

* 附件不适用于提取最小点火能（MIE）小于3 mJ的极易起火的粉尘。

** 当从2区中采气时，仅允许在排除与应用相关的和与工艺相关的密集的静电充电过程时使用陶瓷采样管。

*** 禁止反冲洗爆炸性气氛/气体。

附件常规信息

探头类型：		GAS 222.10	GAS 222.11	GAS 222.15	GAS 222.17	GAS 222.20	GAS 222.21	GAS 222.30	GAS 222.31	GAS 222.35	物品编号
经加热的或不经加热的延长管线	长度 [mm]										
Ⓔx G 3/4 不经加热的 不锈钢 (1.4571)	200	●	●	●	●	●	●	●	●		4622230320200
	400	●	●	●	●	●	●	●	●		4622230320400
	500	●	●	●	●	●	●	●	●		4622230320500
	700	●	●	●	●	●	●	●	●		4622230320700
	1000	●	●	●	●	●	●	●	●		4622230321000
	1200	●	●	●	●	●	●	●	●		4622230321200
	1500	●	●	●	●	●	●	●	●		4622230321500
	2000	●	●	●	●	●	●	●	●		4622230322000
Ⓔx G 1/2 不经加热的 不锈钢 (1.4571)	250									●	4622235910250
	500									●	4622235910500
	700									●	4622235910700
	1500									●	4622235911500
GF 经加热的, 230 V 不锈钢(1.4571)	500					●	●		●		462223036
	1000					●	●		●		462223033
GF 经加热的, 115 V 不锈钢(1.4571)	500					●	●		●		462223136
	1000					●	●		●		462223133
GF, ANSI 经加热的, 115 V 不锈钢(1.4571)	500					●	●		●		462223036C1
	1000					●	●		●		462223033C1
GF 经加热的, 230 V 哈氏合金	1000					●	●		●		462223033H
反冲洗控制											
反冲洗控制24 V			●				●	●	●	●	46222199
反冲洗控制115/230 V			●				●	●	●	●	46222299

Ⓔx 为防爆区域推荐的附件。

表格 1: 反冲洗控制和延长管线

探头类型：			GAS 222.10	GAS 222.11	GAS 222.15	GAS 222.17	GAS 222.20	GAS 222.21	GAS 222.30	GAS 222.31	GAS 222.35	
采样管		长度 [mm]										物品编号
Ex	哈氏合金/1.4571 1) ø12 mm T_{max} :400 °C	500	●	●	●	●	●	●	●	●		462220060500
		1000	●	●	●	●	●	●	●	●		462220061000
		1500	●	●	●	●	●	●	●	●		462220061500
		2000	●	●	●	●	●	●	●	●		462220062000
Ex	不锈钢 1) ø12 mm T_{max} :600 °C	300	●	●	●	●	●	●	●	●		462220010300
		500	●	●	●	●	●	●	●	●		462220010500
		1000	●	●	●	●	●	●	●	●		462220011000
		1500	●	●	●	●	●	●	●	●		462220011500
		2000	●	●	●	●	●	●	●	●		462220012000
Ex	不锈钢 1) ø20 mm T_{max} :600 °C	500	●	●	●	●	●	●	●	●		462220160500
		1000	●	●	●	●	●	●	●	●		462220161000
		1500	●	●	●	●	●	●	●	●		462220161500
		2000	●	●	●	●	●	●	●	●		462220162000
Ex	铬镍铁合金/1.4571 1) ø21 mm T_{max} :1050 °C	500	●	●	●	●	●	●	●	●		462220040500
		1000	●	●	●	●	●	●	●	●		462220041000
		1500	●	●	●	●	●	●	●	●		462220041500
		2000	●	●	●	●	●	●	●	●		462220042000
	坝塔尔合金/1.4571 ø15 mm T_{max} :1400 °C	500	●	●	●	●	●	●	●	●		462220170500
		1000	●	●	●	●	●	●	●	●		462220171000
		2000	●	●	●	●	●	●	●	●		462220172000
Ex	陶瓷/1.4571 1) ø24 mm T_{max} :1600 °C	500	●	●	●	●	●	●	●	●		4622200205
		1000	●	●	●	●	●	●	●	●		4622200210
		1500	●	●	●	●	●	●	●	●		4622200215
Ex	带除雾器的采样管 材质：1.4571 T_{max} :400 °C	100	●	●	●	●	●	●	●	●		4622204201
		300	●	●	●	●	●	●	●	●		4622204203
		500	●	●	●	●	●	●	●	●		4622204205
		600	●	●	●	●	●	●	●	●		4622204206
		800	●	●	●	●	●	●	●	●		4622204208
		1000	●	●	●	●	●	●	●	●		4622204210
Ex	带除雾器的采样管 材质：哈氏合金 T_{max} :400 °C	500	●	●	●	●	●	●	●	●		4622201290500
		750	●	●	●	●	●	●	●	●		4622201290750
		1000	●	●	●	●	●	●	●	●		4622201291000
	带除雾器的采样管 材质：PVDF/ETFE T_{max} :120 °C	200	●	●	●	●	●	●	●	●		462220400200
		650	●	●	●	●	●	●	●	●		462220400650
		800	●	●	●	●	●	●	●	●		46222040

1) 授权防爆区域内的作业和开采限制。详情请参见数据表开头的表格。

Ex 为防爆区域推荐的附件。

表格 2: 采样管

带排气过滤器的用于探头的附件

探头类型：		GAS 222.10	GAS 222.11	GAS 222.15	GAS 222.17	GAS 222.20	GAS 222.21	物品编号
排气过滤器	平均孔径 [µm]							
烧结不锈钢 O型环:氟橡胶	0,5	●	●	●	●	●	●	46222010F [4]
	5	●	●	●	●	●	●	46222010
烧结不锈钢 O型环:FFKM	0,5	●	●	●	●	●	●	46222010FP [4]
	5	●	●	●	●	●	●	46222010P
陶瓷 [1] O型环:氟橡胶	3	●	●	●	●	●	●	46222026
陶瓷 [1] O型环:FFKM	3	●	●	●	●	●	●	46222026P
星形褶皱不锈钢 O型环:氟橡胶	15	●	●	●	●	●	●	462220139
星形褶皱不锈钢 O型环:FFKM	15	●	●	●	●	●	●	462220139P
含硅酸盐粘合剂的微玻璃纤维 O型环:氟橡胶 （关联把手）		●	●	●	●	●	●	462220671 (46222067)
含硅酸盐粘合剂的微玻璃纤维 O型环:FFKM （关联把手）		●	●	●	●	●	●	462220671P (46222067)
密封件 包括管、过滤棉 O型环:氟橡胶		●	●	●	●	●	●	46222163
密封件 包括管、过滤棉 O型环:FFKM		●	●	●	●	●	●	46222163P
密封件 包括管、钢丝绒 O型环:氟橡胶		●	●	●	●	●	●	46222163001

1) 授权防爆区域内的作业和开采限制。详情请参见数据表开头的表格。

4) 应要求。

Ex 为防爆区域推荐的附件。

表格 3: 排气过滤器

带进气过滤器的用于探头的附件

探头类型：		GAS 222.11	GAS 222.21	GAS 222.30	GAS 222.31	GAS 222.35	物品编号
⟨Ex⟩ **进气过滤器**	平均孔径 [µm]						
不锈钢/1.4404/1.4571 长度:229 mm T_{max} :600 °C	0,5					●	46222359F [4]
	5					●	46222359
不锈钢/1.4571 长度:237 mm T_{max} :600 °C	0,5	●	●	●	●		46222303F [4]
	5	●	●	●	●		46222303
带置换器的不锈钢 长度:237 mm T_{max} :600 °C	0,5	●	●	●	●		462223031F [4]
	5	●	●	●	●		462223031
不锈钢/1.4571 长度:538 mm T_{max} :600 °C	0,5	●	●	●	●		46222304F [4]
	5	●	●	●	●		46222304
带置换器的不锈钢 长度:538 mm T_{max} :600 °C	0,5	●	●	●	●		462223041F [4]
	5	●	●	●	●		462223041
哈氏合金 长度:237 mm T_{max} :400 °C	0,5	●	●	●	●		46222303HF [4]
	5	●	●	●	●		46222303H
哈氏合金 长度:538 mm T_{max} :400 °C	0,5	●	●	●	●		46222304HF [4]
	5	●	●	●	●		46222304H
带置换器的哈氏合金 长度:237 mm T_{max} :400 °C	0,5	●	●	●	●		462223031HF [4]
	5	●	●	●	●		462223031H
带置换器的哈氏合金 长度:538 mm T_{max} :400 °C	0,5	●	●	●	●		462223041HF [4]
	5	●	●	●	●		462223041H
陶瓷/1.4571 [1] 长度:478 mm T_{max} :1000 °C	0,3	●	●	●	●		46222307F [2]
	2	●	●	●	●		46222307 [2]
	2	●	●	●	●		46222307C [2], [3]
陶瓷/1.4571 [1] 长度:978 mm T_{max} :1000 °C	2	●	●	●	●		46222330 [2]
	2	●	●	●	●		46222330C [2], [3]
⟨Ex⟩ **导流板**							
用于进气过滤器03 [1]		●	●	●	●		462223034
用于进气过滤器04 [1]		●	●	●	●		462223044

1) 授权防爆区域内的作业和开采限制。详情请参见数据表开头的表格。
2) 热气过滤：氧化气氛最高750，还原气氛最高600 °C；
不适用于提取最小点火能（MIE）小于3 mJ的极易起火的粉尘。
3) 适于带ANSI法兰的探头。
4) 应要求。
⟨Ex⟩ 为防爆区域推荐的附件。

表格 4: 进气过滤器

探头类型：	GAS 222.10	GAS 222.11	GAS 222.15	GAS 222.17	GAS 222.20	GAS 222.21	GAS 222.30	GAS 222.31	GAS 222.35	物品编号
附件 - 螺旋接头										
Ø 6 mm管用样气接头	●	●	●	●	●	●	●	●	●	9029000
Ø 8 mm管用样气接头	●	●	●	●	●	●	●	●	●	9029001
Ø 12 mm管用冲洗气体接口		●				●	●	●	●	9029002
Ø 1/4"管用样气接头	●	●	●	●	●	●	●	●	●	9008584
Ø 3/8"管用样气接头	●	●	●	●	●	●	●	●	●	9029011
Ø 1/2"管用冲洗气体接口		●				●	●	●	●	9008582
附件 - 法兰适配器 - 可选，其他应要求提供										
探头 ·····► 工艺方面										
DIN DN 65 PN 6 ANSI DN 1 1/4" 150 lb.	●	●	●	●	●	●	●	●	●	46222501
DIN DN 65 PN 6 ANSI DN 2" 150 lb.	●	●	●	●	●	●	●	●	●	46222314
DIN DN 65 PN 6 ANSI DN 2" 300 lb.	●	●	●	●	●	●	●	●	●	46222502
DIN DN 65 PN 6 ANSI DN 2 1/2" 150 lb.	●	●	●	●	●	●	●	●	●	46222068
DIN DN 65 PN 6 ANSI DN 3" 150 lb.	●	●	●	●	●	●	●	●	●	46222014
DIN DN 65 PN 6 ANSI DN 3" 300 lb.	●	●	●	●	●	●	●	●	●	46222034
DIN DN 65 PN 6 ANSI DN 4" 150 lb.	●	●	●	●	●	●	●	●	●	46222035
DIN DN 65 PN 6 DIN DN150 PN 6	●	●	●	●	●	●	●	●	●	462220140
DIN DN 65 PN 6 ANSI DN 6"-150 lb.	●	●	●	●	●	●	●	●	●	462220127
ANSI DN 3"-150 lb. ANSI DN 4" 150 lb.	●	●	●	●	●	●	●	●	●	46222058

Ex 为防爆区域推荐的附件。

表格 5: 附件 - 连接法兰、螺旋接头

耗材和附件

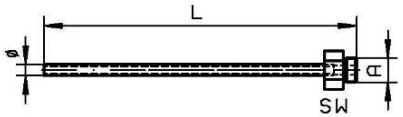
探头类型： 排气过滤器	GAS 222.10	GAS 222.11	GAS 222.15	GAS 222.17	GAS 222.20	GAS 222.21	GAS 222.30	GAS 222.31	GAS 222.35	物品编号
过滤棉	●	●	●	●	●	●				46222167
Ⓔx 氟橡胶O形环套件，包括装配润滑脂	●	●	●	●	●	●				46222012
Ⓔx LT 170 O形环套件，包括装配润滑脂	●	●	●	●	●	●				462220100011
Ⓔx FFKM O形环套件，包括装配润滑脂	●	●	●	●	●	●				46222024
采样管										
除雾器ETFE T_{max} :120 °C （关联锁销）	●	●	●	●	●	●	●	●		462220402 (462220403)
Ⓔx 除雾器不锈钢 T_{max} :400 °C （关联锁销）	●	●	●	●	●	●	●	●		4611004 (462220421)
Ⓔx 除雾器哈氏合金 T_{max} :400 °C （关联锁销）	●	●	●	●	●	●	●	●		4622201291 (4622201292)

Ⓔx 为防爆区域推荐的附件。

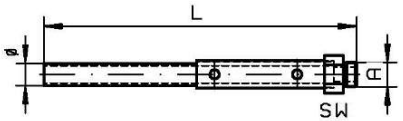
表格 6: 耗材和附件

Entnahmerohre / tubes

Typ	L	ø	A	SW
01	var.	12	G3/4	36
06	var.	12	G3/4	36
08	var.	21,3	G3/4	36
12	var.	20	G3/4	36
13	var.	15	G3/4	36
14	var.	18	G3/4	36



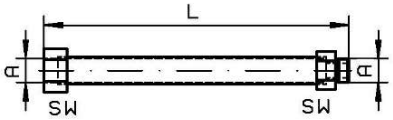
Typ	L	ø	A	SW
02-0,5	500	24	G3/4	36
02-1,0	1000	24	G3/4	36
02-1,5	1500	24	G3/4	36

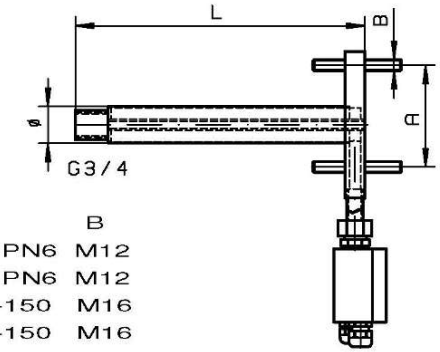


Verlängerungen / extensions

unbeheizt / unheated

Typ	L	A	SW
G3/4	var.	G3/4	36
G1/2	var.	G1/2	27



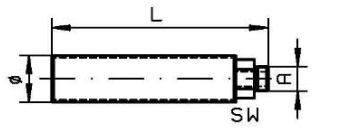


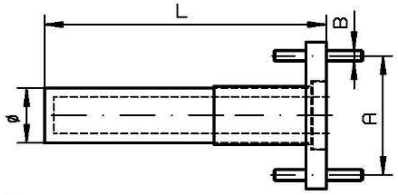
beheizt / heated

Typ	L	ø	A	B
GF	500	40	DN65 PN6	M12
GF	1000	40	DN65 PN6	M12
GF ANSI/CSA	500	40	DN3"-150	M16
GF ANSI/CSA	1000	40	DN3"-150	M16

Eintrittsfilter / in-situ filters

Typ	L	ø	A	SW
03	237	51	G3/4	36
031	237	51	G3/4	36
04	538	60	G3/4	36
041	538	60	G3/4	36
35	229	29	G1/2	27

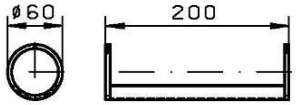




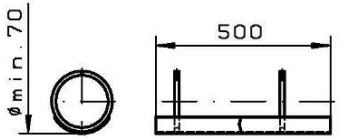
Typ	L	ø	A	B
07	500	60	DN65 PN6	M12
07 ANSI	500	60	DN3"-150	M16

Abweisblech / protection shield

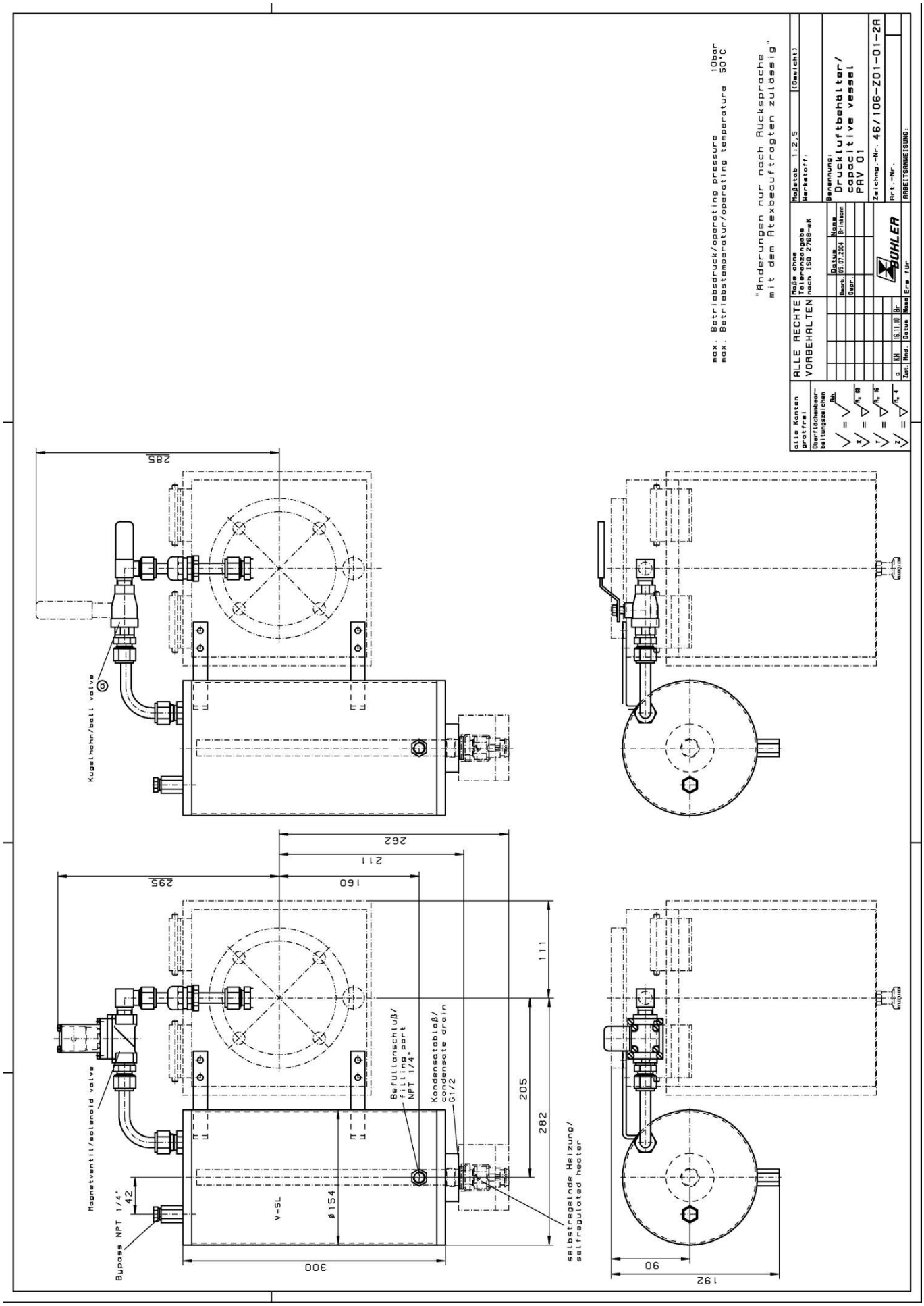
Eintrittsfilter / in-situ filter 03



Eintrittsfilter / in-situ filter 04



alle Kanten gratfrei	ALLE RECHTE VORBEHALTEN	Maße ohne Toleranzangabe nach ISO 2768-mK			Maßstab 1:5 (Gewicht)
Oberflächenbearbeitungszeichen					Werkstoff:
			Datum	Name	Benennung: Rohre/Filter/Verlängerungen tubes/filter/extensions GAS 222
		Bearb.	21.01.2004	Brinkmann	
		Gepr.			
					Zeichng.-Nr. 46/107-Z01-01-3A
a neu	29.09.06 Br	BÜHLER			Art.-Nr.
Zust. Änd.	Datum Name	Ers für			ARBEITSANWEISUNG:


max. Betriebsdruck/operating pressure 10bar
max. Betriebstemperatur/operating temperature 50°C
"Änderungen nur nach Rücksprache mit dem Atexbeauftragten zulässig"
ALLE RECHTE VORBEHALTEN
Maßstab 1:2,5 (Gewicht)
Werkstoff:
Benennung:
Druckluftbehälter/ capacitive vessel PAV 01
Zeichng.-Nr. 46/106-Z01-01-2A
Art.-Nr.
ARBEITSANWEISUNG:
Kugelhahn/ball valve
Magnetventil/solenoid valve
Bypass NPT 1/4"
Befüllanschluß/ filling port NPT 1/4"
Kondensatablaß/ condensate drain G1/2
selbstregelnde Heizung/ selfregulated heater
V=5L
285
295
262
211
160
111
205
282
154
42
300
90
192

RMA-Formular und Erklärung über Dekontaminierung
RMA-去污表格和声明

RMA-Nr./ 商品退货 授权号码

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./ 从销售或服务处的联系人那里可获得商品退货授权（RMA）号码。 当寄还旧设备以废弃处理时，请于RMA号码栏中输入"WEEE"。

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./ 请将退货单，去污声明和货运单一同装在透明套中，粘在包装外。否则您的维修委托将不予处理。

Firma/ 公司

Firma/ 公司
Straße/ 街道
PLZ, Ort/ 邮政编码，地点
Land/ 国家

Ansprechpartner/ 联系人

Name/ 姓名
Abt./ 部门
Tel./ 电话
E-Mail

Gerät/ 设备
Anzahl/ 数量
Auftragsnr./ 订单号码

Serien-Nr./ 序列号
Artikel-Nr./ 商品编号

Grund der Rücksendung/ 寄回原因

- ☐ Kalibrierung/ 校准
- ☐ Modifikation/ 修改
- ☐ Reklamation/投诉
- ☐ Reparatur/ 修复
- ☐ Elektroaltgerät/ 废旧电子设备 (WEEE)
- ☐ andere/ 其他的

bitte spezifizieren/ 请注明

Handelt es sich bei dem Gerät um ein sogenanntes Bühler O2-Ready Produkt (Artikelnummer endet mit „-O2“)?/ 设备是否是所谓的比勒O2-Ready产品（物品编号以“-O2”结尾）？

☐ Nein/ 否 ☐ Ja/ 是

Ist das Gerät möglicherweise kontaminiert?/ 设备是否具有污染性？

- ☐ Nein, da das Gerät nicht mit gesundheitsgefährdenden Stoffen betrieben wurde./ 否，因为该设备已被正确清洁和消毒。
- ☐ Nein, da das Gerät ordnungsgemäß gereinigt und dekontaminiert wurde./ 否，因为未以有损健康的物质运行该设备。
- ☐ Ja, kontaminiert mit:/ 是，污染物为:

☐ explosiv/ 易爆的	☐ entzündlich/ 易燃的	☐ brandfördernd/ 助燃的	☐ komprimierte Gase/ 压缩气体	☐ ätzend/ 腐蚀性的	☐ giftig, Lebensgefahr/ 有毒的，致命危险	☐ gesundheitsgefährdend/ 危害健康的	☐ gesundheitsschädlich/ 对人体有害的	☐ umweltgefährdend/ 对环境有害的

Bitte Sicherheitsdatenblatt beilegen!/ 请附上《安全数据表》！

Das Gerät wurde gespült mit:/ 该设备已被冲洗:

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.

按法律规定寄回（已去污的）设备和组件

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.

如果产品没有被清洁，即我们收到时受了污染，比勒公司保留委托一外部的服务提供者清理的权利并向您收取费用。

Firmenstempel/ 公司印章

Datum/ 日期

rechtsverbindliche Unterschrift/ 具法律约束力的签名

Bühler Technologies GmbH, Harkortstr. 29, 40880 Ratingen
Tel. +49 (0) 21 02 / 49 89-0
E-Mail: service@buehler-technologies.com
Internet: www.buehler-technologies.com

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.

Vermeidung von Kontaminationen bei Produkten für hochreine Sauerstoffapplikationen (O2-Ready)

Handelt es sich bei dem Gerät um ein sogenanntes Bühler O2-Ready Produkt (Artikelnummer endet mit „-O2“), so ist dafür zu sorgen, dass es vom Ausbau des Artikels bis zur Anlieferung bei Firma Bühler zu keiner Kontamination medienberührender Teile kommt. Verschließen Sie Öffnungen und verpacken Sie das Gerät in ein luftdichtes Behältnis. Kennzeichnen Sie die Ware deutlich, insbesondere durch Angabe der vollständigen Artikelnummer (……-O2) auf der ersten Seite dieses Formulars. Hierdurch wird sichergestellt, dass es auch unsererseits zu keiner unnötigen Kontamination kommt.

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.

避免修改和损坏要寄送的组件

对有缺陷的组件的分析是比勒科技有限公司的质量保证的一个重要组成部分。 为了确保分析有说服力，必须尽可能地保持原样来检查产品。不能发生任何改变或进一步的损害，这样可能会掩盖原因或阻碍分析。

避免高纯度氧气应用产品受到污染（O2-Ready）

如果设备是所谓的比勒O2-Ready产品（物品编号以“-O2”结尾），则必须确保从物品取出到交付给比勒的整个过程中，与介质接触的部件不会受到污染。密封所有开口，并将设备装入密闭容器中。清楚标明货物，特别是在本表第一页注明完整的物品编号(.....-O2)。这可以确保我们也不会造成不必要的污染。

处理静电敏感组件

若有电子组件，则可能是静电敏感组件。必须注意以符合ESD标准的方式处理这些组件。如果可能，应在符合ESD标准的工作场所更换组件。如果不可能，在更换过程中应采取符合ESD标准的措施。只能在符合ESD标准的容器中运输。组件的封装必须符合ESD标准。如果可能，请使用备件的包装或自选一符合ESD标准的包装。

安装替换件

在安装备件时，请遵守上述说明。确保配件和所有组件的正确组装。调试前将电缆移回原来状态。如有疑问，请询问制造商了解更多信息。

将废旧电子设备寄送废弃处理

如果您想寄送来自Bühler Technologies GmbH的电子产品以进行妥善废弃处理，请于RMA号码栏中输入"WEEE"。将完整填写的去污声明附于废旧设备上，以便运输时从外部即可见。有关废弃电气和电子设备废弃处理的更多信息，请访问我司的网站。

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