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

IBExU

Certificate No: IECEx IBE 17.0002X — Issue No: 0

Date of Issue: 2017-06-30 —

Item number IECEx GAS 222 Ex2

4 6 2 2 2

Code	Description
	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")

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

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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.

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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")