



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 11.0008	Page 1 of 5	<u>Certificate history:</u>
Status:	Current	Issue No: 6	Issue 5 (2017-02-10)
Date of Issue:	2020-09-04		Issue 4 (2016-09-30)
Applicant:	FLEXIM Flexible Industriemesstechnik GmbH Boxberger Strasse 4 Berlin 12681 Germany		Issue 3 (2014-11-27)
Equipment:	FLUXUS a7bcc-A20de, PIOX a7bcc-A20de, FLUXUS a7bcc-A2 and PIOX a7bcc-A2		Issue 2 (2013-08-06)
Optional accessory:			Issue 1 (2011-11-01)
Type of Protection:	Type of protection "n", Intrinsic safety "ic", Protection by enclosure "tb"		Issue 0 (2011-07-26)
Marking:	Ex nA nC ic IIC T4 Gc Ex tb IIIC T120 °C Db -40 °C ≤ Ta ≤ +60 °C		

Approved for issue on behalf of the IECEx
Certification Body:

Alexander Henker

Position:

Deputy Head of department Certification Body

Signature:
(for printed version)

A. Henker

Date:

2020-09-04

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





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Manufacturer: **FLEXIM Flexible Industriemesstechnik GmbH**
Boxberger Strasse 4
Berlin 12681
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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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/ExTR10.0017/00
DE/IBE/ExTR10.0017/03
DE/IBE/ExTR10.0017/06

DE/IBE/ExTR10.0017/01
DE/IBE/ExTR10.0017/04

DE/IBE/ExTR10.0017/02
DE/IBE/ExTR10.0017/05

Quality Assessment Report:

DE/IBE/QAR11.0003/06



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The ultrasonic measuring device is designed for the measurement of the flow rate in fluids (liquid or gaseous) in piping. It is a stationary measuring device intended for use in processing facilities. The energy emitted by the connected ultrasonic transducers is limited by the ultrasonic measuring device.

Technical data:

Nominal voltage U_N	100...230 V AC, 20...32 V DC or 10...16 V DC
Max. r.m.s AC or DC voltage U_m	250 V (for 100...230 V AC), 36 V (for 20...32 V DC) or 18 V (10...16 V DC)
Power input P_N	max. 15 W
Ambient temperature	-40 °C up to +60 °C
<u>Connection for ultrasonic transducer</u>	
Output voltage	≤ 85 V (0.15...4 MHz)
Output power	< 1 W

Type code for a7bbcc-A20de

a: Flow class: F = Fluid, G = Gas, H = Hydrocarbon, S = Ultrasonic Analyzer

bb: Function: 21 or 22

cc: Application, any two letter combination from AA, AB, AC through ZY, ZZ

d: number of measurement channels: 1 or 2

e: enclosure material, A = Aluminum, S = Stainless steel

Type code for a7bbcc-A2

a: Flow class: F = Fluid, G = Gas, H = Hydrocarbon, S = Ultrasonic Analyzer

bb: Function: 04, 05 or 06

cc: Application, any two letter combination from AA, AB, AC through ZY, ZZ

All types are approved for use ambient pressures < 800 mbar, in particular up to heights of 5000 m above sea level.

SPECIFIC CONDITIONS OF USE: NO



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Equipment (continued):

Outputs:

- Current 0/4mA...20 mA (nominal) active and passive
- Current 0/4mA...20 mA (nominal) with HART mode active and passive
- Voltage
- Frequency
- Binary (Reed relays, open collector, optical)

Inputs:

- Current 0/4mA...20 mA (nominal) active and passive
- Voltage
- Temperature (Pt100 and Pt1000)
- Binary (Reed relays, open collector, optical)

FLUXUS a7bbcc-A20de

PIOX a7bbcc-A20de

Interfaces:

- Ethernet
- BACnet MS/TP
- BACnet IP
- Modbus RTU
- Modbus TCP
- HART
- RS485
- Profibus PA
- Foundation Fieldbus H1
- M-Bus (not for use in explosive Atmospheres)
- USB (not for use in explosive Atmospheres)

FLUXUS a7bbcc-A2

PIOX a7bbcc-A2

Interfaces:

- BACnet MS/TP
- Modbus RTU
- HART
- RS485
- Foundation Fieldbus H1
- RS232 (not for use in explosive Atmospheres)
- M-BUS (not for use in explosive Atmospheres)
- USB (with adapter not for use in explosive Atmospheres)



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Addition of types
- Modification of design