



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 DEK 23.0068** Page 1 of 4 [Certificate history:](#)
Status: **Current** Issue No: 1 [Issue 0 \(2023-12-11\)](#)
Date of Issue: 2026-03-09
Applicant: **Anton Paar GmbH**
Anton-Paar-Strasse 20
Graz, 8054
Austria
Equipment: **Mass Flowmeter Sensor**
Optional accessory: Model AU, AB and AS series
Type of Protection: **Ex ib**
Marking: Ex ib IIC T1...T5 Gb (Model AU)
Ex ib IIB T3...T4 Gb (Models AB and AS)

Approved for issue on behalf of the IECEx
Certification Body:

L.G. van Schie

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

2026-03-09

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
Netherlands





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Manufacturer: **Anton Paar GmbH**
Anton-Paar-Strasse 20
Graz, 8054
Austria

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

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 Report:

[NL/DEK/ExTR23.0067/01](#)

Quality Assessment Report:

[DE/TPS/QAR14.0002/08](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Mass Flow Sensor Model AU, AB and AS series are designed for use with a Mass Flow Transmitter, for instance Model PA0K. They convert the mass flow of a fluid into an electrical signal.

The sensor contains one intrinsically safe drive coil, one or two intrinsically safe pickoff coils, and one or two intrinsically safe temperature sensors.

For type designation, thermal data and electrical data, see Annex 1 to this certificate.

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Addition of type AU004-....

Annex:

[420465500-Annex 1 to ExTR23.0067.01.pdf](#)

Type designation

Aabcd-xexxx-2fx-1ghxix-x

Designation	Explanation	Value	Explanation
a	Mass Flow Sensor Model	U B S	AU Sensor AB Sensor AS Sensor
bcd	Nominal size	00A to 15H	AU00A, AU001, AU003, AU004, AU006, AU010, AU015, AU025, AU040, AU050, AU080, AU100, AU150, AU15H
		006 to 050	AB006, AB010, AB015, AB025, AB040, AB050
		010 to R50	AS010, AS015, AS025, AS040, AS050, ASR50
e	Temperature category	1	Standard (-40 °C to +130 °C)
		2	Standard (+130 °C to +200 °C)
		3	High temperature (+200 °C to +350 °C)
		4	Low temperature (-200 °C to +50 °C)
f	Temperature class	1	T1 AU025 to AU150 high temperature service, separately mounted only
		2	T2 AU003, AU006 to AU15H separately mounted only
		3	T3 All sensor sizes applicable separately mounted only
		4	T4 All sensor sizes applicable integrally and separately mounted models
		5	T5 AU025 to AU15H low temperature service, separately mounted only
g	Transmitter construction	1	Integrally mounted
		2	Separately mounted
h	Power Source	1, 2	Irrelevant to explosion safety of the sensor models
i	Communication	1..4	Irrelevant to explosion safety of the sensor models

Thermal data

T-class	Process temperature range	Ambient temperature range	Model or option
T1	-20 °C to +350 °C	-20 °C to +50 °C	Models AU with high temperature service
T2	-40 °C to +200 °C	-40 °C to +60 °C	Models AU
T3	-40 °C to +150 °C		Models AB
	-40 °C to +125 °C		Models AS
T4	-40 °C to +70 °C	-40 °C to +60 °C	Model AB015
	-40 °C to +80 °C		All models, except: - AB015 - AU with high or low temperature service
T5	-200 °C to +50 °C	-20 °C to +50 °C	Models AU with low temperature service

Note: For the integrally mounted type, the ambient temperature range of the transmitter shall be also considered.

Electrical data

Sensor Input circuits:

In type of protection intrinsic safety Ex ib IIC or Ex ib IIB, only for connection to Mass Flow Transmitter Model PA0K per Instruction manual No. XDPIB008EN-A.

or

Drive coil circuit (internal connections to the transmitter):

In type of protection intrinsic safety Ex ib IIC or Ex ib IIB, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 12.3 \text{ V}$; $I_i = 0.878 \text{ A}$ (resistively limited); $P_i = 2.7 \text{ W}$; $C_i = 0 \text{ }\mu\text{F}$.

The maximum internal inductance L_i and the minimum series resistance R_i of the drive coil circuit depend on the sensor model, in accordance with the following table:

Sensor Model	Maximum coil inductance L_i (mH)	Minimum coil resistance R_i (Ω)	Series resistance in drive coil circuit (Ω)
Models AU, standard temperature category (T2...T4)			
AU00A	8.1	161	2400 \pm 1% (x2)
AU001	8.0	178	2400 \pm 1% (x2)
AU003	3.6	76.2	2400 \pm 1%
AU004	15.2	159	1000 \pm 1% (x2)
AU006, AU010	2.0	45	1000 \pm 1% (x2)
AU015	15.2	159	330 \pm 1% (x2)
AU025	55.6	348	330 \pm 1% (x2)
AU040, AU050	31.0	172	330 \pm 1% (x2)
AU080	13.9	89	200 \pm 1% (x2)
AU100, AU150	13.9	89	270 \pm 5%
AU15H	4.9	69	220 \pm 5%
Models AU, high temperature service (T1)			
AU025	0.78	10.30	75 \pm 5%
AU040, AU050	1.43	15.73	75 \pm 5%
AU080, AU100, AU150	0.99	17.90	75 \pm 5%
Models AU, low temperature service (T5)			
AU025	55.6	0	560 \pm 5%
AU040, AU050	31.0	0	390 \pm 5%
AU080, AU100, AU150	13.9	0	270 \pm 5%
AU15H	4.9	0	220 \pm 5%
Models AB			
AB006, AB010	3.6	69	1000 \pm 1%
AB015	15.2	159	—
AB025	55.6	358	—
AB040, AB050	31.0	173	—
Models AS			
AS010, AS015	12.3	202	—
AS025	15.3	174	—
AS040	8.0	85	—
AS050, ASR50	6.8	87	—

Electrical data (continued)

Pickoff coil and temperature sensor circuits (internal connections to the transmitter):
in type of protection intrinsic safety Ex ib IIC or Ex ib IIB, only for connection to certified intrinsically safe circuits, with the following maximum values:

$U_i = 15.0 \text{ V}$; $I_i = 17 \text{ mA}$ (resistively limited); $P_i = 64 \text{ mW}$; $C_i = 0 \text{ }\mu\text{F}$.

The maximum internal inductance L_i and the minimum series resistance R_i of the pickoff coil circuits are in accordance with the following table:

Sensor Model	Maximum coil inductance L_i (mH)	Minimum coil resistance R_i (Ω)	Series resistance in pickoff coil circuit (Ω)
Models AU, standard temperature category (T2...T4)			
AU00A	8.1	161	—
AU001	8.0	178	—
AU003	3.6	76.2	—
AU004	3.6	69	—
AU006, AU010, AU015, AU025, AU040, AU050, AU080	2.0	45	—
AU100, AU150	1.1	18	560 \pm 5%
AU15H	33.0	188	560 \pm 5%
Models AU, high temperature service (T1)			
AU025, AU040, AU050, AU080, AU100, AU150	1.45	13.5	390 \pm 5%
Models AU, low temperature service (T5)			
AU025, AU040, AU050, AU080	2.0	0	560 \pm 5%
AU100, AU150	1.1	0	560 \pm 5%
AU15H	33.0	0	560 \pm 5%
Models AB			
AB006, AB010, AB015, AB025, AB040, AB050	3.6	69	—
Models AS			
AS010, AS015, AS025, AS040, AS050, ASR50	7.0	122	—

The internal inductance of the temperature sensor circuits $L_i = 0 \text{ mH}$.

The pickoff coil and temperature sensor circuits shall, from the safety point of view, be considered to be connected to earth.