



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 PRE 18.0059X

Issue No: 0

Certificate history:

[Issue No. 0 \(2019-03-01\)](#)

Status: **Current**

Page 1 of 4

Date of Issue: **2019-03-01**

Applicant: **XSENS AS**
Fantoftveien 38
5072 Bergen
Norway

Equipment: **Flowmeter**

Optional accessory:

Type of Protection: **ec, ic, [ic]**

Marking:

Ex ec ic [ic] IIB T3 Gc

Ambient temperature:

-20°C to +60°C

The pipe surface temperature at installation location shall not exceed +100°C.

Approved for issue on behalf of the IECEx

Asle Kaastad

Certification Body:

Position:

Certification manager

Signature:

(for printed version)

Date:

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:

DNV GL Presafe AS
Veritasveien 3
1363 Høvik
Norway





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Certificate No: IECEX PRE 18.0059X

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Page 2 of 4

Manufacturer: **XSENS AS**
Fantoftveien 38
5072 Bergen
Norway

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 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 Explosive atmospheres - Part 0: General requirements
Edition:6.0

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

[NO/PRE/ExTR18.0059/00](#)

Quality Assessment Report:

[NO/PRE/QAR19.0002/00](#)



IECEX Certificate of Conformity

Certificate No: IECEx PRE 18.0059X

Issue No: 0

Date of Issue: 2019-03-01

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The product is a hi-accuracy flow and fraction measurement equipment - from outside of the pipe.

The XACT flowmeter can be used in zone 2 (with intrinsically safe connections) or with Um connections (J6 and J8). When used with Um connections the FE board is considered as "ec" low power equipment. The product consists of 1 Field Electronics (FE) card and up to 12 Transducer (TE) cards. The TE card is intrinsically safe and supplied from intrinsically safe outputs on the FE card. The FE card is mounted inside an already certified Ex "e" enclosure. The TE card is totally encapsulated and then mounted inside a stainless-steel enclosure with an ingress protection degree of at least IP20 (main enclosure).

The "ec" variant of the FE card has Um: 30V connection to the J8 - Power connection and Um: 13,5V connection to J6 - Modbus connection. All other connection under operations shall be intrinsically safe. The switches are intrinsically safe. The only exception is J4 (Ethernet connection) that shall only be used by XSENSE for maintenance, repair and overhaul. This card is encapsulated.

The "ic" variant of the FE card has only IS connections. The switches are intrinsically safe. The only exception is J4 (Ethernet connection) that shall only be used by XSENSE for maintenance, repair and overhaul. FE card is encapsulated according to the EN 60079-11 standard - Ex "i".

Routine tests:

Dielectric strength test according to clause 7.1 of IEC 60079-7: 2015 (500V r.m.s. for 60 seconds).

Electrical Safety Parameters:

Connector	Um:	Ui:	Ii:	Pi:	Ci:	Li:
J6 (Modbus)	13,5V	9V	50mA	450mW	Negligible	Negligible
J8 (Power)	30V	26V	356mA	9,25W	Negligible	Negligible
J11 (pin 1-2 & pin 3-4)		30V	100mA	900mW	Negligible	Negligible
Connector		Uo:	Io:	Po:	Co:	Lo:
J2 & J3 (PT100 Temp Sensor)		13,5V	6mA	21mW	1µF	1mH
J20 & J21 (4-20mA IS device)		13,5V	251mA	848mW	5,2µF	2,21mH
Connector						
J4 (Gigabit Ethernet)	Shall only be used by manufacturer during production, test, repair and overhaul.					
J9	IS earth connection					
J17 (USART)	Shall only be used by manufacturer for setting IP address.					



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Certificate No: IECEx PRE 18.0059X

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Page 4 of 4

SPECIFIC CONDITIONS OF USE: YES as shown below:

- For electrical parameters see document XACT-002-000-Dr-620/621.
- When using NON-IS power, the power input, J8, is rated for an Um of 30V. Shall be installed in accordance with clause 16.2.1 of IEC 60079-14: 2013.
- When using NON-IS Modbus communication, the Modbus connection, J6, is rated for an Um of 13,5V. Shall be installed in accordance with clause 16.2.1 of IEC 60079-14: 2013.
- When using non-IS power at J6 and/or J8 transient protection shall be provided set to a level not exceeding 140% of the peak rated voltage value at the supply terminals.