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 KIWA 17.0017X

Issue No: 0

Certificate history:
Issue No. 0 (2017-11-21)

Status: Current

Date of Issue: 2017-11-21

Applicant: KROHNE Altometer
Kerkeplaat 12
3313 LC Dordrecht
The Netherlands

Equipment: Clamp-on Ultrasonic Flowsensor, OPTISONIC 6000 xxxxxx/...-Ex

Optional accessory:

Type of Protection: Ex ia

Marking:

Ex ia IIC T6...T4 Gb or Ex ia IIC T6...T2 Gb

Approved for issue on behalf of the IECEx Certification Body: Pieter van Breugel

Position: Certification Officer

Signature:
(for printed version)

Date: 21 NOVEMBER 2017

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:

Kiwa Nederland B.V. (Unit Kiwa ExVision)
Wilmersdorf 50
7327 AC Apeldoorn
P.O. Box 137
The Netherlands

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Manufacturer:	KROHNE Altometer Kerkeplaat 12 3313 LC Dordrecht The Netherlands	

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

*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:

NL/KIWA/ExTR17.0018/00

Quality Assessment Report:

NL/DEK/QAR11.0057/04

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Clamp-On Ultrasonic Flow Sensor, Model OPTISONIC 6000 xxxxxx/...-Ex, used for measuring the flow rate in completely or partly filled pipe lines. The flow sensor consists of either a single enclosure with two ultrasonic flow sensors, two enclosures with two flow sensors and a splitter box or four enclosures with one flow sensor and a splitter box. The enclosures of the flow sensor and the splitter box are made from aluminium or stainless steel.

Ambient temperature range: -40 °C to +70 °C (see tables below);

Process temperature range: -40 °C to +200 °C (see tables below).

SPECIFIC CONDITIONS OF USE: YES as shown below:

The painted aluminium enclosures of the flow sensor and the splitter box shall be protected against electrostatic charging

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EQUIPMENT (continued):

The relation between temperature class, ambient temperature and maximum process temperature is shown in the following tables:

Standard version OPTISONIC 6000 xxxxxx/...-Ex (Ex ia IIC T6...T4 Gb)

Temperature class	Ambient temperature	Max. process temperature
T6	60 °C	80 °C
T5	70 °C	95 °C
T4	70 °C	120 °C

Extended temperature version OPTISONIC 6000 xxxxxx/XT-Ex (Ex ia IIC T6...T2 Gb)

Temperature class	Ambient temperature	Max. process temperature
T6	60 °C	80 °C
T5	70 °C	95 °C
T4	70 °C	120 °C
T3	70 °C	195 °C
T2	70 °C	200 °C

Electrical Data

Sensor supply circuit (fixed cable with internal SMB connector):
in type of protection intrinsic safety Ex ia IIC, only for connection to an intrinsically safe circuit, with the following maximum values:
U_i = 8.5 V; I_i = 250 mA; P_i = 531 mW; C_i = 4.5 nF; L_i = 400 µH