

CERTIFICATE

(1) EC-Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **DEKRA 12ATEX0073 X** Issue Number: **3**

(4) Equipment: **Ultrasonic Gas Flow Meter, Model ALTOSONIC V12 and Model OPTISONIC V6**

(5) Manufacturer: **Krohne Altometer**

(6) Address: **Kerkeplaat 12, 3313 LC Dordrecht, The Netherlands**

(7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential assessment report number 215162500.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11
EN 60079-18 : 2004

EN 60079-1 : 2007

EN 60079-7 : 2007

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:



II 2 G Ex d IIB or IIC T5...T4 Gb or
II 2 G Ex d e IIB or IIC T5...T4 Gb or
II 2 G Ex d ma IIB or IIC T5...T4 Gb or
II 2 G Ex d e ma IIB or IIC T5...T4 Gb

This certificate is issued on 15 January 2015 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.

R. Schuller
Certification Manager



(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate DEKRA 12ATEX0073 X**

Issue No. **3**

(15) **Description**

The Ultrasonic Gas Flow Meter, Model ALTOSONIC V12 and Model OPTISONIC V6, consists of a meter body with an electronic unit installed on top of it. A number of ultrasonic transducers, Model G5, G6 or G7, is installed inside the meter body. Each pair of ultrasonic transducers constitutes an acoustic path (measuring path).

The ALTOSONIC V12 is available in four versions: V12 (standard version), V12-T (Twin meter), V12-D (Direct path meter) and the V12 reference meter.

The OPTISONIC V6 is available in four versions: V6 (standard version), V6-T (Twin meter), V6-FR (Full Redundant meter) and V6-D (Direct path meter).

Depending on the used cable glands and blanking elements the terminal compartment of the electronics enclosure can be in type of protection flameproof enclosures "d" or increased safety "e".

The marking of the flowmeter is Ex d (e) ma IIB or IIC T5 when transducer model G5 is used;

The marking of the flowmeter is Ex d (e) ma IIB or IIC T5...T4 when transducer model G6 is used;

The marking of the flowmeter is Ex d (e) IIB or IIC T5...T4 when transducer model G7 is used.

Ambient temperature range -40 °C to +65 °C;

Process temperature range -40 °C to +100 °C.

The relation between transducer model, process temperature and temperature class is given in the table below:

Transducer model	Maximum process temperature [°C]			
	up to 70	70-85	85-95	95-100
G5	T5	-	-	-
G6	T5	T5	T4	T4
G7	T5	T5	T5	T4

Electrical data

Supply: 24 Vdc, max. 10 W (without diagnostic board)

max. 17,5 W (with diagnostic board)

Installation instructions

The instructions provided with the equipment shall be followed in detail to assure safe operation.

(16) **Assessment Report**

No. 215162500.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate DEKRA 12ATEX0073 X**

Issue No. 3

(17) **Specific conditions of use**

The temperature class is dependent on the maximum process temperature and the transducer used.

For information on the dimensions of the flameproof joints the manufacturer shall be contacted.

The special fasteners of the flameproof enclosure are property class A2-70 or better.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Assessment Report No. 215162500.