

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres - Directive 94/9/EC

(3) EC-Type Examination Certificate Number: **KEMA 02ATEX2168**

(4) Equipment or protective system: **Ultrasonic measuring units types Altosonic V UFC-V/EEEx and UFC-V/LT-EEEx**

(5) Manufacturer: **Krohne Altometer**

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

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

(8) KEMA Quality 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 or protective system 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 report no. 2021056

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

EN 50014 : 1997

EN 50018 : 2000

EN 50020 : 1994

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

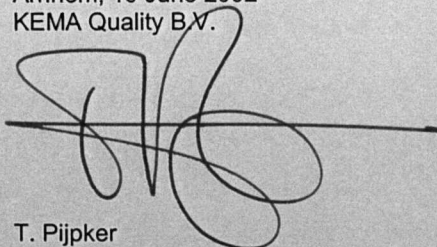
(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment or protective system according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment or protective system. These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

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



II 2 G EEx d [ib] IIB T5

Arnhem, 19 June 2002
KEMA Quality B.V.



T. Pijpker
Certification Manager

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SCHEDULE

- (13)
- (14) **to EC-Type Examination Certificate KEMA 02ATEX2168**

(15) **Description**

The ultrasonic flow measuring units types Altosonic V UFC-V/EEEx and UFC-V/LT-EEEx are 5-Beam Flow Converters designed to measure the flow of a liquid.

Ambient temperature range : - 20 °C .. + 60 °C (standard version)
 : - 50 °C .. + 60 °C (LT version, cable gland)
 : - 55 °C .. + 60 °C (LT version, conduit)

Electrical data

Rated voltage..... 24 V or 115/230 V, 50/60 Hz or 24 Vdc
 Power dissipation..... max. 50 W (standard version)
 max. 240 W (LT version)

Measurement circuits in type of explosion protection intrinsic safety EEx ib IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$$\begin{aligned}
 U_o &= 8,7 && V \\
 I_o &= 360 && mA \\
 P_o &= 783 && mW
 \end{aligned}$$

Maximum allowed external capacitance $C_o = 1,2 \mu F$,
 maximum allowed external inductance $L_o = 0,17 mH$.

Installation instructions

The cable entry devices and blanking elements of unused apertures shall be of a certified flameproof type, suitable for the conditions of use and correctly installed.

With the use of conduit, a suitable certified sealing device such as a stopping box with compound shall be provided immediately at the entrance to the flameproof enclosure.

Routine tests

None.

(16) **Report**

KEMA No. 2021056.

(17) **Special conditions for safe use**

None.

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

Covered by the standards listed at (9).

SCHEDULE

(13)

(14)

to EC-Type Examination Certificate KEMA 02ATEX2168**(19) Test documentation**

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|---------------------------------|--|
| 1. Component Certificate | PTB No. Ex-99.E.2062 U |
| | KEMA No. Ex-96.D.1866 U |
| Certificate of Conformity | KEMA No. Ex-99.E.2075 |
| EC-Type Examination Certificate | CESI 00 ATEX 036 U |
| | <u>dated</u> |
| 2. Description (12 pages) | 22.04.2002, 21.05.2002
and 13.06.2002 |
| 3. Drawings index sheet | 22.04.2002 |