# EC-TYPE EXAMINATION CERTIFICATE

(1)

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

(3) EC-Type Examination Certificate Number: **KEMA 00ATEX2119 X**

(4) Equipment or protective system: **Ultrasonic Gas Flow Meters type GFS 700 F-EEx and GFS 700 F/HT-EEx**

(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. 2006242.

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

**EN 50014 : 1997 EN 50018 : 2000 EN 50019 : 2000**

(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 in accordance 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 de IIC T6 ... T1**

Arnhem, 22 January 2002
KEMA Quality B.V.

T. Pijpker
Certification Manager



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ACCREDITED BY THE DUTCH COUNCIL FOR ACCREDITATION

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 00ATEX2119 X**

(15) **Description**

The Ultrasonic Gas Flow Meters type GFS 700 F-EEx and GFS 700 F/HT-EEx are the measuring units that are to be connected to the remote Ultrasonic Gas Flow Convertor type GFC 700 F-EEx. The Flow Meters consist of measuring sensors in type of explosion protection flameproof enclosure "d", connected to a terminal box in type of explosion protection increased safety "e".

Ambient temperature range –40 °C ... +60 °C.

| Temperature class | Max. proces temperature ( GFS 700 F-EEx) | Max. proces temperature (GFS 700 F/HT-EEx) |
|---|---|---|
| T6 | 80 °C | 80 °C |
| T5 | 95 °C | 95 °C |
| T4 | 130 °C | 130 °C |
| T3 | 180 °C | 180 °C |
| T2 | - | 290 °C |
| T1 | - | 440 °C |

**Electrical data**

Current output ..... $I \leq 22$ mA, $U \leq 18$ V

Pulse status in-/outputs ..... $I \leq 150$ mA, $U \leq 36$ V

Sensor outputs ..... $U \leq 400$ Vpeak

**Installation instructions**

The cable entry device for the connecting cable to the Ultrasonic Gas Flow Convertor type GFC 700 F-EEx, shall be in type of explosion protection increased safety "e", suitable for the conditions of use and correctly installed.

Unused apertures shall be closed with suitable certified blanking elements.

**Routine tests**

Routine tests according to Clause 16 of EN 50018 shall be carried out using an overpressure of at least 20 bar, during 1 minute.

(16) **Report**

KEMA No. 2006242.

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 00ATEX2119 X**

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

The cable between the terminal box of the GFS 700 F-EEx sensor assembly and the GFC 700 F-EEx converter, is to be fixed installed in such a way that it is protected against mechanical damage.

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

Covered by the standards listed at (9).

(19) **Test documentation**

1. EC-Type Examination Certificate PTB 00ATEX1063
   EC-Type Examination Certificate KEMA 98ATEX1651 U

   signed:

2. Description (9 pages) — 25.10.2000 / 20.11.2001

3. Drawing No. 8.30872.01, rev. A )
   8.30872.02, rev. A )
   8.30872.03, rev. A )
   8.30872.04, rev. B )
   8.30872.05, rev. D )
   8.30872.06, rev. A )
   8.30872.07, rev. C ) — 21.11.2001
   8.30872.08, rev. B )
   8.30872.11, rev. D )
   8.30872.13, rev. A )

   8.30872.12, rev. B )
   8.30872.16, rev. A )
   8.30872.17, rev. A ) — 12.04.2001

4. Samples