

CERTIFICATE

(1) **Type Examination**

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: **KEMA 10ATEX0111 X** Issue Number: **8**

(4) Product: **Digital Mass Flow Meters/Controllers Type IN-FLOW Series, IN-FLOW CTA Series, Digital Electronic Pressure Transducers/Controllers Type IN-PRESS Series and Digital Liquid Flow Meters/Controllers Type LIQUI-FLOW Series L10I / L20I, Compact Coriolis Mass Flow Meters / Controllers Type CORI-FLOW M5x Series and miniCORI-FLOW M1x Series**

(5) Manufacturer: **Bronkhorst High-Tech B.V**

(6) Address: **Nijverheidsstraat 1a, 7261 AK Ruurlo
The Netherlands**

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

(8) DEKRA Certification B.V., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. 213510500-2 Issue 8.

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

EN 60079-0 : 2012 + A11 : 2013 EN 60079-15 : 2010 EN 60079-31 : 2014

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

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



**II 3 G Ex nA IIC T4 Gc
II 3 D Ex tc IIIC T70 °C Dc**

Date of certification: 9 January 2018

DEKRA Certification B.V.

R. Schuller
Certification Manager

(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 10ATEX0111 X**

Issue No. 8

(15) **Description**

The Digital Mass Flow Meters/Controllers Type IN-FLOW Series and IN-FLOW CTA Series, convert a gas flow into an electrical signal using a thermal mass flow sensor. In addition, the instruments are equipped with an electromechanical valve that allows them to control the flow. This valve can either be integrally or separately mounted, as an option.

The Digital Electronic Pressure Transducers/Controllers Type IN-PRESS Series, convert a gas pressure or a liquid pressure into an electrical signal using a pressure transducer. In addition, the instruments are equipped with an electromechanical valve that allows them to control the pressure. This valve can either be integrally or separately mounted, as an option.

The Digital Liquid Flow Meters/Controllers Type LIQUI-FLOW Series L10I / L20I convert a liquid flow into an electrical signal using a thermal mass flow sensor. In addition, the instruments are equipped with an electromechanical valve that allows them to control the flow. This valve can either be integrally or separately mounted, as an option.

The Compact Coriolis Mass Flow Meters / Controllers Type CORI-FLOW M5x Series and miniCORI-FLOW M1x Series convert a liquid flow or a gas flow into an electrical signal using a coriolis mass flow sensor. In addition, the modules are equipped with an electromechanical valve that allows them to control the flow. These valve can either be integrally or separately mounted, as an option.

Controller function in combination with fixed connected electrical valves with coils IIU / ITU / IUU / IVU / IIW.

The enclosure provides a degree of protection of at least IP65 according to EN 60529.

The type code, ambient temperature range and temperature class of the instruments shall be taken from ATEX CAT3 listing BHT 9.06.045, rev. F.

Electrical data

The electrical data shall be taken from ATEX CAT3 listing BHT 9.06.045, rev. F.

Installation instructions

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

(16) **Report Number**

No. 213510500-2 Issue 8.

(17) **Specific conditions of use**

When the temperature under rated conditions exceeds 70 °C at the cable or conduit entry point, or 80 °C at the branching point of the conductors, the temperature specification of the selected cable shall be in compliance with the actual measured temperature.

(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 10ATEX0111 X**

Issue No. 8

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. 213510500-2 Issue 7.

(20) **Certificate history**

Issue 1 - 213510500	Initial certificate
Issue 2 ...3 -	Revised construction and Addition of modules
Issue 4 - 219374000	Modules transfer from KEMA 10ATEX0110 X
Issue 5 - 219622300	Assessment to EN 60079-0 : 2012 + A11 : 2013
Issue 6 - 219867700	Assessment to EN 60079-31 : 2014
Issue 7 - 222057900	Addition of a module
Issue 8 - 222339000	Addition of modules