

# CERTIFICATE

## (1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **DEKRA 12ATEX0144 X** Issue Number: **4**

(4) Product: **Mass Flow Meter/Controller, mini CORI-FLOW type XM1.-..... -A**

(5) Manufacturer: **Electromach B.V., Member of the R. Stahl Technology Group**

(6) Address: **Jan Tinbergenstraat 193, 7559 SP Hengelo, 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., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 the Directive.

The examination and test results are recorded in confidential test report numbers NL/DEK/ExTR12.0022/00, NL/DEK/ExTR12.0022/01, NL/DEK/ExTR12.0022/02, 216329700; issue 2 and 216329700; issue 3.

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

**EN 60079-0 : 2012**  
**EN 60079-11 : 2012**

**EN 60079-1 : 2014**  
**EN 60079-18 : 2015**

**EN 60079-7 : 2015**

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 EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

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



**II 2 G Ex db eb IIB T6 Gb (standard version) or**  
**II 2(1) G Ex db eb mb [ia Ga] IIB T4 Gb (extended version without display) or**  
**II 2(1) G Ex db eb ia mb [ia Ga] IIB T4 Gb (extended version with display)**

Date of certification: 25 April 2017

DEKRA Certification B.V.



T. Pijpker  
Certification Manager

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 12ATEX0144 X**

Issue No. 4

(15) **Description**

The Mass Flow Meter/Controller, mini CORI-FLOW type XM1.-...-...-A is used to measure and control the flow of a gas or liquid. The Mass Flow Meter/Controller is mounted inside an Ex d enclosure, for field wiring connection an Ex e enclosure is fitted to the flameproof enclosure. The Ex e enclosure of the extended version is provided with a thermostat, isolating repeater and optionally a display. The standard and the extended version can optionally be provided with a display in the flameproof enclosure. For the low ambient temperature the mass flow meter is provided with a heater.

Type key XM1a-bbb-ccc-dA, where

a = size of tube

2 = M12

3 = M13

4 = M14

bbb = version

STD = Standard version

EXT = Extended version

ccc = type of material

RVS = Stainless steel

HAS = Hastelloy

d = Ambient temperature

S = Standard ambient

L = Low Ambient

Ambient temperature range:                    0 °C to +55 °C (standard version, standard ambient)  
0 °C to +40 °C (extended version, standard ambient)  
-20 °C to +55 °C (standard version, low ambient)  
-20 °C to +40 °C (extended version, low ambient)

Process temperature range:                    0 °C to 70 °C

Process pressure:                                max. 13,8 MPa (types XM12 and XM13)  
max. 10,7 MPa (type XM14)

**Electrical data**

Power supply:                                    15 - 24 Vdc, max. 19 W (standard version)  
15 - 24 Vdc, max. 35 W (extended version)  
max. 42 Vdc, 80 W (heater low temperature version)

Display circuit extended version:            in type of protection intrinsic safety Ex ia IIC  
(optional, internal circuit)

Output circuit extended version:            in type of protection intrinsic safety Ex ia IIC,  
(Xi1, terminals 1 and 2)                    only for connection to an intrinsically safe circuit,  
with the following maximum values:  
U<sub>i</sub> = 30 V, I<sub>i</sub> = 150 mA, P<sub>i</sub> = 1 W, C<sub>i</sub> = 0 nF, L<sub>i</sub> = 0 mH  
U<sub>o</sub> = 0 V, I<sub>o</sub> = 0 mA, P<sub>o</sub> = 0 W

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 12ATEX0144 X** Issue No. 4

**Installation instructions**

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

(16) **Report Number**

Nos. NL/DEK/ExTR12.0022/00, NL/DEK/ExTR12.0022/01, NL/DEK/ExTR12.0022/02, 216329700; issue 2 and 216329700; issue 3.

(17) **Specific conditions of use**

For electrical data of the intrinsically safe output circuit, see (15) above.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report Nos. NL/DEK/ExTR12.0022/00, NL/DEK/ExTR12.0022/01, NL/DEK/ExTR12.0022/02, 216329700; issue 2 and 216329700; issue 3.

(20) **Certificate history**

Issue 1 - 215281200	Initial certificate
Issue 2 - 216329700	Addition of type with and without display
Issue 3 - 218351500	Addition of alternative material for the mass flow meter (Hastelloy)
Issue 4 - 221660300	Assessment to the latest editions of the applicable standards, introduction of low and standard ambient temperature versions, change of type key from XM1*-*-*-* to XM1*-*-*-*A.