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 12ATEX0189 X** Issue Number: **6**

(4) Product: **Vortex Flowmeter Model 8600D**

(5) Manufacturer: **Emerson – Rosemount, Micro Motion Inc.**

(6) Address: **12001 Technology Drive, Eden Prairie, MN 55344, USA**

(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 number NL/DEK/ExTR11.0022/07.

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

EN 60079-0 : 2012 + A11 : 2013
EN 60079-1 : 2014
EN 60079-11 : 2012
EN 60079-26 : 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 1/2 G	**Ex db [ia] IIC T6 ... T2 Ga/Gb**	**(integral transmitter)**
II 2(1) G	**Ex db [ia Ga] IIC T6 Gb**	**(remote transmitter)**
II 1 G	**Ex ia IIC T6 ... T2 Ga**	**(remote sensor)**

Date of certification: 11 July 2018

DEKRA Certification B.V.

R. Schuller
Certification Manager

PRODUCTS RvA C 001

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(13) # SCHEDULE

(14) **to EU-Type Examination Certificate DEKRA 12ATEX0189 X** Issue No. **6**

(15) **Description**

The Model 8600D Vortex Flowmeter consists of a cast aluminum or stainless steel electronics housing in type of protection flameproof enclosures Ex db and an integral or remote mounted stainless steel meter body/sensor assembly in type of protection intrinsic safety Ex ia. The electronics processes and converts the sensor signal into a 4-20 mA, HART digital, pulse or Foundation Fieldbus output signal.

Remote mounted sensor: in type of protection Ex ia IIC, only to be connected to the associated Model 8600D Vortex Flowmeter electronics. The maximum allowable length of the interconnecting cable is 152 m (500 ft).

For the type designation, thermal and electrical data see Annex 1 to this certificate.

Installation instructions

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

(16) **Report Number**

No. NL/DEK/ExTR11.0022/07.

(17) **Specific conditions of use**

When the equipment is installed, precautions shall be taken to ensure the ambient temperature of the transmitter lies between -50 °C to +70 °C, taking into account process fluid effects. If the ambient temperature is outside this range remote transmitters shall be used.

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

The Flowmeter is provided with special fasteners of property class A2-70 or A4-70.

Units marked with “Warning: Electrostatic Charging Hazard” may use non-conductive paint thicker than 0,2 mm. Precautions shall be taken to avoid ignition due to electrostatic charge on the enclosure.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR11.0022/07.

(13) # SCHEDULE

(14) **to EU-Type Examination Certificate DEKRA 12ATEX0189 X** Issue No. **6**

(20) **Certificate history**

Issue 1	-	216500900	initial certificate
Issue 2	-	217188400	update to EN 60079-11:2012, assessment of non-safety related items
Issue 3	-	218187400	minor constructional changes
Issue 4	-	381580000	minor constructional changes
Issue 5	-	381847500	update to EN 60079-0:2012, EN 60079-1:2014, EN 60079-26:2015, minor constructional changes and change rating of remote sensor and integral transmitter from T6 to T6 … T2
Issue 6	-	381995000	Minor constructional changes

Annex 1 to IECEx Report NL/DEK/ExTR11.0022/07
Annex 1 to Certificate of Conformity IECEx DEK 11.0022X
Annex 1 to EU-Type Examination Certificate DEKRA 12ATEX0189 X issue 6

Note: In this document [.] is used as decimal separator.

Description

The Model 8600D Vortex Flowmeter consists of a cast aluminum electronics housing in type of protection Ex db and an integral or remote mounted stainless steel meter body/sensor assembly in type of protection Ex ia. The electronics process and convert the sensor signal into a 4-20 mA, HART digital or pulse output signal.

Remote mounted sensor: in type of protection Ex ia IIC, only to be connected to the associated Model 8600D Vortex Flowmeter electronics. The maximum allowable length of the interconnecting cable is 152 m (500 ft).

Type designation

8600D	N	1	M5	_	V5
I	II	III	IV	V	VI

Designation	Explanation	Value	Explanation
I	Model	8600D	Vortex flowmeter
II	Sensor temperature	N	-50 °C to +250 °C
III	Conduit entry	1 2	½-14 NPT M20 x 1.5
IV	Display	M5 Blank	LCD display No display
V	Remote electronics	R10 R20 R30 R33 R50 Rxx Blank	10 ft (3 m) cable 20 ft (6.1 m) cable 30 ft (9.1 m) cable 33 ft (10 m) cable 50 ft (15.2 m) cable Customer specified cable length, up to 75 ft (23 m) Integral mount electronics
VI	Ground screw	V5	External ground screw
Note: ***** Other types of protection that appear on the marking of the equipment are not relevant to this certificate.			

Thermal data

Ambient temperature range: -50 °C to +70 °C
Process temperature range: -50 °C to +250 °C

Temperature class transmitter: T6
Temperature class sensor: see table below

Ambient Temperature [°C]	Process Temperature [°C]	T–Class Sensor
-50 to +70	-50 to +75	T6
-50 to +70	-50 to +95	T5
-50 to +70	-50 to +130	T4
-50 to +70	-50 to +195	T3
-50 to +70	-50 to +250	T2

Electrical data

Power supply: 42 Vdc max (4-20 mA HART analog and pulse outputs), U_m = 250 V.