



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx BAS 05.0028X

Issue No: 16

Certificate history:

Status: **Current**

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Issue No. 16 (2019-08-27)

Issue No. 15 (2019-04-11)

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Issue No. 12 (2017-05-05)

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Issue No. 10 (2015-03-09)

Issue No. 9 (2014-10-03)

Issue No. 8 (2014-05-28)

Issue No. 7 (2013-06-06)

Date of Issue: **2019-08-27**

Applicant: **Emerson - Rosemount, Micro Motion Inc.**
12001 Technology Drive
Eden Prairie
MN 55344
United States of America

Equipment: **Model 8800D Vortex Flowmeter**

Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking:

Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +70°C) - 4-20mA HART Versions
Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +60°C) - Fieldbus & FISCO Versions


Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

Position:

Technical Manager

Signature:
(for printed version)


27-8-19

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





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Manufacturer: **Emerson - Rosemount, Micro Motion Inc.**
12001 Technology Drive
Eden Prairie
MN 55344
United States of America

Additional Manufacturing location(s):

SC Emerson SRL
Emerson Street No. 4
400641 Cluj-Napoca
Romania

**Emerson Process Management Flow
Technologies Co., Ltd.**
111, Xing Min South Road
Jiangning District, Nanjing
Jiangsu Province
211100
China

F-R Tecnologías De Flujo, S.A. De C.V.
Rosemount Flow Business Unit
Ave. Miguel de Cervantes 111
31136 Chihuahua
Mexico

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0
IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

IECEX ATR:	File Reference:
UK/BAS/05/0045, GB/BAS/ExTR06.0136/00, GB/BAS/ExTR07.0037/00, GB/BAS/ExTR08.0164/00, GB/BAS/ExTR09.0002/00,	05/0045, 06/0751, 07/0217, 08/0361, 08/0859
GB/BAS/ExTR10.0212/00, GB/BAS/ExTR11.0205/00, GB/BAS/ExTR14.0125/00, GB/BAS/ExTR15.0055/00, GB/BAS/ExTR16.0044/00,	10/0705,11/0360, 14/0235, 14/0907, 15/0765,
GB/BAS/ExTR17.0041/00, GB/BAS/ExTR17.0223/00, GB/BAS/ExTR17.0375/00, GB/BAS/ExTR19.0066/00, GB/BAS/ExTR19.0207/00	16/0753, 17/0526, 17/0626, 19/0148, 19/0417



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Model 8800D Vortex Flowmeter is a two-wire, piezoelectric-based flowmeter designed to measure the flow of a fluid within a pipe.

It consists of four printed circuit boards (PCB's), a terminal block and an optional liquid crystal display unit mounted within a coated aluminium alloy or stainless steel enclosure forming the transmitter assembly. This is either mounted on a stainless steel, nickel alloy, carbon steel or super duplex meter body, or connected via a coaxial cable to a remote meter body which contains the piezoelectric sensor.

The transmitter converts the sensor input to a 4-20mA output, HART digital output or pulse totalizer signal output. The transmitter can be fitted with an alternative Fieldbus output board to form Foundation Fieldbus & FISCO variants of the Model 8800D Vortex Flowmeters.

Connection to external circuit is achieved by the use of a 4-way terminal block within the transmitter enclosure, entry to which is gained by a threaded conduit entry point.

Four variants of the above Model 8800D Vortex Flowmeters can be mounted on process pipework to form the Model 8800DQ Quad Vortex Flowmeter. Each Model 8800D Vortex Flowmeter mounted to the arrangement has the same input parameters as identified on the certificate annex.

See Certificate Annex for model details and input parameters.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When fitted with 90V transient suppressors, the equipment is not capable of passing the 500V insulation test. This must be taken into account upon installation.

2. The enclosure may be made from aluminium alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion when located in Zone 0. The polyurethane paint finish may constitute an electrostatic hazard and must only be cleaned with a damp cloth.

3. When the equipment is installed, particular precautions must be taken to ensure, taking into account the effect of process fluid temperature, that the ambient temperature of the electrical housing of the equipment meets the marked protection type temperature range.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 16.1

To permit the fitting of four Model 8800D Vortex Flowmeters onto a common process pipework to form the Model 8800DQ Quad Vortex Flowmeter. The four flowmeters fitted can be either the fixed or remote mounted variants of the Model 8800D and be a mixture of HART, Foundation Fieldbus or FISCO variants of the equipment. The certification and input parameters to each Model 8800D remain as previously assessed.

The Equipment Schedule on page 3 of the certificate was revised to detail the Model 8800DQ variant.

ExTR: **GB/BAS/ExTR19.0207/00**

File Reference: **19/0417**

Annex:

[IECEX BAS 05.0028X Annex Issue 2.pdf](#)

Model 8800D Vortex Flowmeters

8800D HART Vortex Flowmeter

Ex ia IIC T4 Ga (-60°C ≤ T_a ≤ +70°C)

Input Parameters

U_i = 30V C_i = 0
I_i = 185mA L_i = 0.97mH
P_i = 1.0W

8800D Fieldbus Vortex Flowmeter

Ex ia IIC T4 Ga (-60°C ≤ T_a ≤ +60°C)

Input Parameters

U_i = 30V C_i = 0
I_i = 300mA L_i = < 10μH
P_i = 1.3W

8800D FISCO Vortex Flowmeter

Ex ia IIC T4 Ga (-60°C ≤ T_a ≤ +60°C)

Input Parameters

U_i = 17.5V C_i = 0
I_i = 380mA L_i = < 10μH
P_i = 5.32W