IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx SIR 13.0092X**

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Certificate history:

Issue 3 (2016-02-12)
Issue 2 (2015-04-02)
Issue 1 (2014-10-14)
Issue 0 (2013-08-19)

Status: **Current**

Issue No: 4

Date of Issue: 2020-02-28

Applicant: **Emerson SRL**
Emerson Street No.4
400641 Cluj-Napoca
Romania

Equipment: **Micro Motion Specific Gravity Meter (SGM) and Micro Motion Gas Density Meter (GDM)**

Optional accessory:

Type of Protection: **Intrinsically Safe ia**

Marking:

Ex ia IIC T6 Ga	Micro Motion Specific Gravity Meter (SGM):SGM3*****3E*
Ex ia IIC T♦ Ga	Micro Motion Gas Density Meter (GDM):GDM*****3E*
Ex ia IIC T4 Ga	Micro Motion Specific Gravity Meter (SGM):SGM3*****2E*
Ex ia IIC T4 Ga	Micro Motion Gas Density Meter (GDM):GDM*****2E*

♦ The temperature class is dependent on the maximum process temperature as outlined in clause iii of the Conditions of Certification listed in the certificate

Approved for issue on behalf of the IECEx Certification Body: **Neil Jones**

Position: **Certification Manager**

Signature:
(for printed version)

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 www.iecex.com or use of this QR Code.

Certificate issued by:

SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
United Kingdom

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Certificate No.: **IECEx SIR 13.0092X**

Date of issue: 2020-02-28

Issue No: 4

Manufacturer: **Emerson SRL**
Emerson Street No.4
400641 Cluj-Napoca
Romania

Additional manufacturing locations: **Rosemount Measurement Ltd.**
158 Edinburgh Avenue
Slough
Berkshire SL1 4UE
United Kingdom

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 equipment 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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-26:2006 Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
Edition:2

This Certificate **does not** indicate compliance with 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:

Test Reports:

GB/SIR/ExTR13.0236/00
GB/SIR/ExTR14.0245/00
GB/SIR/ExTR15.0100/00
GB/SIR/ExTR16.0028/00
GB/SIR/ExTR20.0041/00

Quality Assessment Reports:

GB/SIR/QAR06.0044/09
NO/PRE/QAR15.0031/01

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Micro Motion Specific Gravity Meter (SGM) and the Micro Motion Gas Density Meter (GDM) comprise of a transmitter and a sensor used for the measurement of fluid density and/or viscosity and to create I/O signals from data transmission. The transmitter and sensor together form a density/viscosity meter.

The GDM consists of the transmitter and the sensor while the SGM consists of the GDM surrounded by an aluminium gas reference chamber of fixed volume that is initially pressurized with the gas intended for measurement. The SGM and the GDM devices are both available with an optional display module. A more detailed list of specifications, methods of operation and an assessment for mechanical hazards can be found under Report R29300A.

Refer to the Annexe for entity parameters.

SPECIFIC CONDITIONS OF USE: YES as shown below:
Refer to the Annexe

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
This issue, Issue 4 recognises the following change; refer to the certificate annex to view a comprehensive history:

1. Add an alternative O-ring, gasket, and diaphragm material for SGM products.

Annex:

IECEx SIR 13.0092X Issue 4 Annexe.pdf

The SGM/GDM transmitter has the following entity parameters

		Power supply (connector J1)	mA output with HART (connector J2)	Configurable output (Connector J3)	RS485 communication port (connector J5)	
Input					Barrier Type 1	Barrier Type 2
Voltage	Ui (Vdc)	30	30	30	18	17.22
Current	Ii (mA)	484	484	484	100	484
Power	Pi (W)	2.05	2.05	2.05	-	-
Max. internal capacitance	Ci (pF)	0	0	0	1000	1000
Max. internal inductance	Li (µH)	0	0	0	0	0
Output						
Voltage	Uo (Vdc)	-	-	-	9.51	9.51
Current	Io (mA)	-	-	-	480	480
Power	Po (W)	-	-	-	0.786	0.786
Max. external capacitance	Co (pF)	-	-	-	85000	85000
Max. external inductance	Lo (µH)	-	-	-	154	25

Specific Conditions of Use

i. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of the SGM equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This condition is only applicable when the equipment is installed in a Zone 0 environment.

ii. In rare cases, ignition sources due to impact and friction sparks could occur when the equipment is installed in a Zone 0 environment. This shall be considered during the final installation.

iii. The temperature class is defined by the ambient and process temperature as shown in the charts below.

Specific Gas Density Meter (SGM):

Model SGM3***3E***

Temperature class	Ambient temperature	Process temperature
T6	-18°C to +65°C	-18°C to +65°C

Model SGM3***2E***

Temperature class	Ambient temperature	Process temperature
T4	-18°C to +65°C	-18°C to +65°C

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Tel: +44 (0) 1244 670900
Email: ukinfo@csagroup.org
Web: www.csagroupuk.org

Gas Density Meter (GDM):

Model GDM***3E***

Temperature class	Ambient temperature (Ta)	Process temperature (Tp)
T6	-40°C to +**°C	-40°C to +80°C
T5	-40°C to +**°C	-40°C to +95°C
T4	-40°C to +**°C	-40°C to +125°C

Model GDM***2E***

Temperature class	Ambient temperature (Ta)	Process temperature (Tp)
T4	-40°C to +**°C	-40°C to +125°C

****Refer to the formula below.

If Tp ≤ 65°C, Ta max = 65°C
If Tp > 65°C, Ta max = -0.161 (Tp - 65°C) + 65°C

Conditions of Manufacture

1. The equipment incorporates a previously certified transmitter for the Micro Motion Specific Gravity Meter (SGM) or the Gas Density Meter (GDM) under IECEx BVS 13.0009X. It is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with this device, and the manufacturer shall inform Sira of any modifications of the device that may impinge upon the explosion safety design of the product.

Full Certificate Change History

Issue 1 – this Issue introduced the following change:

1. The Applicant's name was changed from Mobrey Limited to Rosemount Measurement Limited, the address is unchanged.

Issue 2 – this Issue introduced the following change:

1. The introduction of an alternative manufacturing location in Romania was approved.

Issue 3 – this Issue introduced the following changes:

1. The Applicant's name and address was changed:

From:	To:
Rosemount Measurement Ltd. 158 Edinburgh Avenue Slough Berkshire SL1 4UE, United Kingdom	Emerson SRL Emerson Street No.4 400641 Cluj-Napoca Romania

2. Rosemount are listed as an alternative manufacturing location.

Issue 4 – this Issue introduced the following change:

1. Add an alternative O-ring, gasket, and diaphragm material for SGM products..

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