



Marine & Offshore

Certificate number: 26326/B0 BV

File number: AP4248

Product code: 3744H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Emerson - Rosemount, Micro Motion Inc
Eden Prairie - UNITED STATES OF AMERICA

for the type of product

FLOW METER

8800D Vortex Flowmeter.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31.

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 08 Apr 2023

For Bureau Veritas Marine & Offshore,

At BV PORT EVERGLADES CENTRE, on 08 Oct 2018,

Flavio Rosas



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Rosemount 8800D Series Vortex Flowmeter.

1.1 - Specification:

Process Fluids:	Liquid, gas, steam application. - Standard: -40 to 232°C
Process Temperature Limits:	- Extended: -200 to 427°C - MultiVariable (MTA Option): -40 to 427°C <u>Note:</u> Use above 232°C requires Extended Sensor. - Operating: -50 to 85°C & -20 to 85°C (for flowmeters with local indicator).
Ambient Temperature Limits:	- Storage: -50 to 121°C & -46 to 85°C (for flowmeters with local indicator).

1.2- Ex Marking:

Ex nA ic IIC T5 Gc (-50°C≤Ta≤+70°C)
 Ex nA ic IIC T5 Gc (-50°C≤Ta≤+60°C)
 Ex ia IIC T4 Ga (-60°C≤Ta≤+70°C)
 Ex ia IIC T4 Ga (-60°C≤Ta≤+60°C)
 Ex db [ia] IIC T6...T1 Ga/Gb (-50°C≤Ta≤+70°C)
 Ex db [ia Ga] IIC T6 Gb (-50°C≤Ta≤+70°C)
 Ex ia IIC T6...T1 Ga (-50°C≤Ta≤+70°C)
 Ex tb IIIC T85°C Db (-20°C≤Ta≤+70°C)

II 1/2 G Ex db [ia] IIC T6...T1 Ga/Gb
 II 2(1) G Ex db [ia Ga] IIC T6 Gb
 II 1 G Ex ia IIC T6...T1 Ga

II 3 G Ex nA ic IIC T5 Gc (-50°C≤Ta≤+70°C)
 II 3 G Ex nA ic IIC T5 Gc (-50°C≤Ta≤+60°C)
 II 1 G Ex ia IIC T4 Ga (-60°C≤Ta≤+70°C)
 II 1 G Ex ia IIC T4 Ga (-60°C≤Ta≤+60°C)
 II 2 D Ex tb IIIC T85°C Db (-20°C≤Ta≤+70°C)

2. DOCUMENTS AND DRAWINGS:

- Product Data Sheet Ref. 00813-0100-4004, latest revision.
- Quick Installation Guide Ref. 00825-0100-4004, latest revision.
- Reference Manual Ref. 00809-0100-4004, latest revision.

3. TEST REPORTS:

Curtis-Strauss:

- Test Report N°EK1474-1, dated 04/07/2011.

For B0 version: Ex certificates;

- Certificate No. IECEx KEM 05.0017X Issue No. 7, dated 11 July 2018 and Annex 1 to IECEx KEM 05.0017X Issue 7.
- Certificates No. IECEx BAS 05.0028X Issue No. 14 & IECEx BAS 05.0029X Issue No. 14, both dated 12 February 2018.
- Certificate No. IECEx BAS 17.0019X Issue 2, dated 12 February 2018.
- Certificate No. KEMA 99ATEX3852 X Issue No. 7, dated 11 July 2018 and Annex 1 to KEMA 99ATEX3852 Issue 7.
- Certificates No. Baseefa05ATEX0084X Issue No. 12 & Baseefa05ATEX0085X Issue No. 12, both dated 12 February 2018.
- Certificate No. Baseefa17ATEX0020X Issue 2, dated 12 February 2018.

4. APPLICATION / LIMITATION:

4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.

4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31**

4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zones.

4.5 - Ex-certification is not covered by this certificate. Applications in hazardous areas are to be approved in each case according to the Rules and Conditions for Safe Use specified in a valid Ex-Certificate issued by a Notified or Recognised Certification Body.

4.6 - This certificate only covers the electrical part, excluding piping and welding.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The flowmeters are to be supplied by **Emerson - Rosemount, Micro Motion Inc.** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320.

5.3 - **Emerson - Rosemount, Micro Motion Inc.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **Emerson - Rosemount, Micro Motion Inc.** has declared to Bureau Veritas the following production site(s):

**F-R Tecnologias de Flujo, S.A De C.V.
Av. Miguel de Cervantes 111
31136 Chihuahua
MEXICO**

6. MARKING OF PRODUCT:

6.1 - Trade name.

6.2 - Date of manufacture and serial number.

6.3 - Equipment type or model identification under which it was type-tested.

6.4 - Ex marking, as relevant.

7. OTHERS:

7.1 - It is **Emerson - Rosemount, Micro Motion Inc.** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 26326/A3 BV issued on 24 October 2017 by the Society.

*** END OF CERTIFICATE ***