



Marine & Offshore

Certificate number: 49389/A0 BV

File number: AP4763

Product code: 3744I

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

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

Micro Motion Inc.

Boulder - UNITED STATES OF AMERICA

for the type of product

FLOW METER

HPC010P

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code : 31S

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: 06 Mar 2023

For Bureau Veritas Marine & Offshore,

At BV PORT EVERGLADES CENTRE, on 06 Mar 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.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=ywplqpoynn>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Micro Motion Coriolis Flow Sensor for liquid applications.

Main Specifications of Coriolis Flow Sensor :

Maximum working pressure	1034 Bar
Nominal mass flow rate	50 kg/h
Nominal mass flow rate	49 l/h
Wetted part material:	Nickel alloy N06022
Process Connection:	9/16-inch medium pressure autoclave compatible fittings
Ingress Protection Index:	IP66/67
Hazardous area classification:	Ex ib IIC T6/T5/T4...T1 Gb Ex nA IIC T5/T4...T1 Gc

2. DOCUMENTS AND DRAWINGS:

2.1 - Product Data Sheet ref. PS-002073 - rev.A - Micro Motion Model HPC010P Ultra High Pressure Flowmeter dated Dec 2016

2.2 - Drawing ref.ER-20022549 - rev.AA - Flanged Assy, HPC010 dated Dec 02, 2016

3. TEST REPORTS:

3.1 - Intertek Environment and Vibration Tests Report No. 102894678GRR-001 dated Jan 24, 2018

3.2 - Certificate No. IECEx BVS 16.0087X issued by DEKRA and dated Dec 20, 2016

3.3 - Certificate No. IECEx BVS 16.0083X issued by DEKRA and dated Dec 21, 2016

4. APPLICATION / LIMITATION:

4.1 - BUREAU VERITAS Rules 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: 31S.**

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

4.5 - The transmitters shall comply with the requirements of the relevant Bureau Veritas rules and be type approved by BV.

4.6 - 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.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The HPC010P Flow Meters are to be supplied by **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 and as such does not require a BV product certificate.

5.3 - **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, **MICRO MOTION Inc.** has declared to Bureau Veritas the following production site(s):

MICRO MOTION Inc.
7070 Winchester Circle
Boulder, CO
UNITED STATES OF AMERICA

6. MARKING OF PRODUCT:

6.1 - Trade name,

6.2 - Date of manufacture and serial number,

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

6.4 - Ex marking, as relevant.

7. OTHERS:

It is **MICRO MOTION Inc. - USA**'s 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.

***** END OF CERTIFICATE *****