

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Flow Transmitter

with type designation(s)
Coriolis Master FCB3 / FCH3 series, Transmitter FCT3 series

Issued to
ABB Automation Products GmbH
Göttingen, Germany

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
Coriolis Master FCB3 / FCH3 series	C*	B	B	A	D
Transmitter FCT3 series	C*	B	A**	A	C

***Tested to -40°C**
****See Application/Limitation**

This Certificate is valid until **2019-06-30**.

Issued at **Høvik** on **2015-02-04**

DNV GL local station: **Magdeburg**

Approval Engineer: **Nils Jarem**

for **DNV GL**

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Odd Magne Nesvåg
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Certificate No: **A-14145**
File No: **892.50**
Job Id: **262.1-017563-1**

Product description

Coriolis Master FCB3 / FCH3 Massflow Flowmeters, Transmitter FCT3 series.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Application/Limitation

To achieve vibration class A, the transmitter FCT3 series with round Type 3 housing should be mounted with supporting plate according to drawing no 3KXF002260U0009.

Type Approval documentation

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

Marking of product

The products to be marked with:

- model name
- manufacturer name
- serial number

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Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE