Application description AD/FEP500/102-EN Rev. A

ABB Measurement Products
Trusted solutions for ballast water treatment applications

Measurement made easy

The perfect fit for ballast water treatment systems

Introduction

Changing regulations in the marine industry have driven the need for ballast water treatment and measurement.
Ballast water is used to stabilize vessels when not fully loaded. Water that is taken in at one port and released at another port causes the introduction of non-indigenous organisms into fragile ecosystems.
Untreated ballast water is now highly regulated.
Vessels need to install a ballast water treatment system.

ABB´s perfect fit

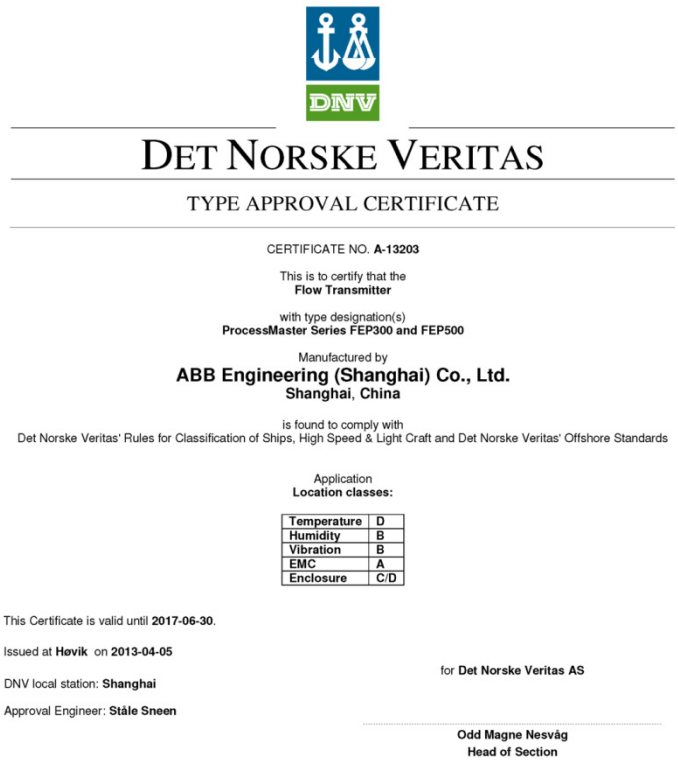
Traditional mechanical flowmeters are negatively affected by ballast water due to the presence of mussels, sand and other particles.
This limits the lifespan of the meter and results in increased maintenance and replacement cost.
ABB's ProcessMaster electromagnetic flowmeter has no rotating parts reaching into the pipe that cause wear and pressure loss.
A highly abrasion resistant sensor liner material makes ProcessMaster ideal for this application.

ABB Measurement Products
Trusted solutions for ballast water treatment applications

Trust a world leader in flow measurement

ABB has been manufacturing flowmeters for over 80 years and is responsible for many of the great innovations in flow measurement technology.
Our flowmeters have a reputation for quality, reliability and accuracy. Plus, they are all backed by a global network of service engineers that are available where and when you need them.

The ABB ProcessMaster series of electromagnetic flowmeters has now been awarded DNV certification for marine applications. Delivering you performance and peace of mind in a single package.



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-13203**

This is to certify that the
Flow Transmitter

with type designation(s)
ProcessMaster Series FEP300 and FEP500

Manufactured by
ABB Engineering (Shanghai) Co., Ltd.
Shanghai, China

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:

Temperature	D
Humidity	B
Vibration	B
EMC	A
Enclosure	C/D

This Certificate is valid until **2017-06-30**.

Issued at **Høvik** on **2013-04-05**

DNV local station: **Shanghai**

Approval Engineer: **Ståle Sneen**

for **Det Norske Veritas AS**

Odd Magne Nesvåg
Head of Section

Fig. 1: Certificate

Fig. 2: ProcessMaster

Key features of ProcessMaster

- High measurement accuracy 0.2 % of rate
- Easy to understand, simple to operate through intuitive navigation and configuration.
- Backlit, high-contrast and configurable display for installations in areas such as the machine room.
- Detailed diagnostics for rapid decision making, providing the right information to keep the process up and running.
- Simplified trouble shooting increases productivity and process safety. Fault finding help text is shown in the display.
- ScanMaster tool allows performance of in-situ verification of the flowmeter.
- Empty pipe detection in-built diagnostic.
- Integral or remote electronics.
- Sensor sizes: DN 3 ... 2000 (1/10 " ... 80 ").

ABB provides many other devices suitable for ballast water treatment

Valve control using an ABB positioner

Our ever-expanding family of products includes a complete line of actuators, positioners, damper drives, and converters with a variety of features and functions.

Whether electric or pneumatic, intelligent or conventional, part-turn or linear movement – ABB is your supplier of choice for easy to integrate, operate and maintain valve control.

Fig. 3: TZIDC positioner

Key features of ABB´s TZIDC positioner

- Best in class shock and continuous vibration immunity at 10 g
- Easy to operate through single button startup and Autotune
- Adaptive tube function for realtime self-optimization
- No overshooting when regulating
- Lowest air consumption in the market
- Easy to maintain through position deviation indication

Pressure transmitters and sensors

ABB's 2600T family of pressure transmitters and sensors are available in a wide variety of configurations. Our all-stainless steel versions are field-proven in off-shore applications and feature unique features such as finger-tip through the glass operation, built-in back-up configuration storage, easy to change electronics modules and plugged impulse line detection.

Fig. 4: 2600T pressure transmitters

Key features of ABB´s Pressure Transmitter type 266

- Marine approved
- High accuracy
- 10 years stability
- Possible to change the electronic and main board during operations
- Enhanced diagnostic features such as plugged impulse line
- Easy to operate through Quick Setup menu guiding the operator

Contact us

Please contact your local ABB representative to learn more about these devices and how easy they can be integrated into your ballast water treatment system.

Or visit **www.abb.com/measurement**

3KDE010070R3001

More information

AD/FEP500/102-EN Rev. A 10.2015

Power and productivity
for a better world™