



CERTIFICATE NUMBER	20-LD1952235-PDA
EFFECTIVE DATE	20-Feb-2020
EXPIRY DATE	19-Feb-2025
ABS TECHNICAL OFFICE	London Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

DANFOSS A/S

located at

**NORDBORGVEJ 81 - BUILDING E14 S4A, APPROVALS DEPT.,
NORDBORG, Denmark, DK-6430**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Pressure Transmitter

Model MBS 9300

This Product Design Assessment (PDA) Certificate remains valid until 19/Feb/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Theodoros Chatzidakidas, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

DANFOSS A/S

NORDBORGVEJ 81 - BUILDING E14 S4A

APPROVALS DEPT.

NORDBORG

Denmark DK-6430

Telephone: 45-7488-2222

Fax: 45-7465 2580

Email: danfoss@danfoss.com

Web: www.danfoss.com

Tier: 3 - Type Approved, unit certification not required TC

Product: Pressure Transmitter

Model: MBS 9300

Intended Service:

Use on ABS Classed Vessels and Offshore Installations according to the listed ABS Rules and International Standards.

Description:

Low pressure transmitter for marine applications.

Control alarm and monitoring function in marine and industrial applications.

Rating:

Operation Temperature: -25C to +100C

Pressure Range: -150 to 250 mbar

Output Signal: 4-20 mA / Ratiometric 10-90% of supply

Power Supply: 24 VDC / 5 VDC

Enclosure IP Rating: IP65

Service Restriction:

1. Unit Certification is not required for this product.

2. The pressure transmitters covered by this PDA are not suitable for use in explosive / hazardous atmospheres.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Drawing No. 119-21656-1, IACS E10 Testing, Location: Force Technology, Denmark, Issue Date: 10.04.2019,

Revision: -, Pages: 55

Drawing No. Datasheet MBS 9300, Datasheet, Revision: -, Pages: 4

Drawing No. Document - ABS 14-LD1252041A-PDA, Existing PDA, Revision: -, Pages: 3

Drawing No. IC.PD.P21.X5.02_MBS 9300_07.2019, MSB 9300 Brochure, Revision: -, Pages: 4

Terms of Validity:

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STANDARDS

ABS Rules:

- Marine Vessels Rules (2020): 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/1.7, 4-8-3/1.11, 4-9-9/7, 4-9-9/13, 4-9-9/15.7 Table 1

- Mobile Offshore Units Rules (2020): 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-3-1/11, 4-3-1/15, 6-1-1/9, 6-1-1/13;

- Facilities on Offshore Installations Rules (2020): 1-1-4/9.7, 1-1-A2, 1-1-A3

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- Steel Vessels for Service on Rivers and Intracoastal Waterways Rules (2020): 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-5-1/13, 4-5-1/17;
- Bulk Carriers for Service on the Great Lakes (2020): 1-1-4/7.7, 1-1-A3, 1-1-A4;
- Steel Barge Rules (2020): 1-1-4/7.7, 1-1-A3, 1-1-A4;
- High-Speed Crafts Rules (2020): 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-7-9/15.5 Table 9;

National:
NA

International:
IACS UR E10 Rev. 7:2018 (Items 1 to 7, 9, 11, 13 to 21)

Government:
NA

EUMED:
NA

TC

OTHERS:
NA