



CERTIFICATE NUMBER
15-LD1322076-PDA

DATE
02 Apr 2015

ABS TECHNICAL OFFICE
London Engineering Department

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
DANFOSS A/S

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 Control**

Model: **MBC 5100**


This Product Design Assessment (PDA) Certificate 15-LD1322076-PDA, dated 02/Apr/2015 remains valid until 01/Apr/2020 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING



Malcolm C Barraclough
Engineer

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 the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

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Tier: 3 - Type Approved, unit certification not required

Product: Pressure Control

Model: MBC 5100

Intended Service:

Use on ABS Classed Vessels and Offshore Installations in accordance with the listed ABS Rules.

Description:

MBC 5100 pressure controls for use in control, alarm and monitoring applications, provided in the following versions: Diaphragm Type (if pressure peaks and pulsations occur in the system), Bellows Type (if low differential is needed), and Piston Type for high pressure up to 400 bar

Rating:

Pressure: Low Pressure Bellows - Overload 15 Bar, Minimum Burst Pressure - 30 Bar; High Pressure Bellows - Overload 45 Bar, Minimum Burst Pressure 90 Bar; Diaphragm - Overload 150 Bar, Minimum Burst Pressure 300 Bar; High Pressure Piston-Overload 600 Bar, Minimum Burst Pressure 1200 Bar;
Switch: Contact Load; Microswitch: AC 15, 0.5A 250V. DC 13, 12W 125V
Operation Temperatures: -10 to 85 degrees C for versions with Diaphragm, -40 to 85 degrees C for versions with Bellows; Transport -50 to 85 degrees C.
Enclosure: IP 65. Vibration Stability: Sinusoidal - 4 g / 25 Hz-100 Hz; Shock Resistance: Shock free fall - 50 g / 6 ms

Service Restriction:

Unit Certification is not required for this product.

Comments:

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

Notes/Drawing/Documentation:

Drawing No. 061B9032, MBC-CABLE VARIANTS, Revision: -, Pages: 1
Drawing No. 8540/NZL/NBR/14, 8540/NZL/NBR/14, Revision: -, Pages: 1
Drawing No. APPENDIX 1 - FOR TEST REPORT NO: BOS/3087/BS/14, APPENDIX 1 - FOR TEST REPORT NO: BOS/3087/BS/14, Revision: -, Pages: 1
Drawing No. HEAVY DUTY PRESSURE SWITCH TYPES 5000 AND MBC 5100, HEAVY DUTY PRESSURE SWITCH TYPES 5000 AND MBC 5100, Revision: -, Pages: 1
Drawing No. TEST REPORT, TEST REPORT, Revision: -, Pages: 1
Drawing No. Data Sheet MBC 5100, Revision: -, Pages:

Terms of Validity:

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STANDARDS

ABS Rules:

- Steel Vessels (2015) 1-1-4/7.7, 1-1-A3&A4; 4-8-3/1.7, 4-8-3/1.11, 4-9-8/13, 4-9-8/13 Table 1, Table 2;
- Steel Vessels Under 90 Meters (295 Feet) in Length (2015) 1-1-4/7.7, 1-1-A3&A4; 4-1-1/3.3, 4-7-1/5.39, 4-7-2/15.1, 4-7-2/17.3;
- Facilities on Offshore Installations (2015) 1-1-4/9.7, 1-1-A2&A3;
- Offshore Support Vessels (2015) 1-1-4/7.7, 1-1-A3&A4, 4-9-8/7, 4-9-8/13, 4-9-8/Tables 1&2;
- Mobile Offshore Drilling Units (2015) 1-1-4/9.7, 1-1-A2&A3, 6-1-1/9, 6-1-1/13;
- Steel Vessels for Service on Rivers and Intracoastal Waterways (2015) 1-1-4/7.7, 1-1-A3&A4;
- Bulk Carriers for Service on the Great Lakes (1978) 1-1-4/7.7, 1-1-A3&A4;
- High Speed Crafts (2015) 1-1-4/11.9, 1-1-A2&A3;
- Steel Barges (2015) 1-1-4/7.9, 1-1-A3&A4;

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA

