

CERTIFICATE NUMBER 15-LD1342938-PDA DATE 02 Apr 2015

CERTIFICATE OF

ABS TECHNICAL OFFICE London Engineering Department

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: Differential Pressure Control, Type MBC 5180

This Product Design Assessment (PDA) Certificate 15-LD1342938-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

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Tier: 3 - Type Approved, unit certification not required

Product:

Pressure Control

Model:

Differential Pressure Control, Type MBC 5180

Intended Service:

Use on ABS Classed vessels and offshore installations in accordance with the listed ABS Rules and International Standards.

Description:

The MBC controllers are used in alarm indication, shut-down control, and monitoring systems. They consist of a mounting block enclosure housing the diaphragm, and a SPDT electrical switch with electrical plug connection.

Rating:

Operating Pressure: 45 bar;

Operating Temperature: -10 Deg C to 85 Deg C;

Enclosure.: IP 65;

Switch.: Single-pole Changeover switch (SPDT); Contact load: 0.5A, 250V, AC15 or 12W,125V,DC13;

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. Data Sheet MBC 5180, 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, 4-9-8/13, 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;



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- 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