



MARINE DIVISION

Certificate number: 06871/E0 BV

File number: AP 2925

Product code: 3812D

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

DANFOSS A/S
NORDBORG - DENMARK

for the type of product

TEMPERATURE SENSORS / PROBES / TRANSDUCERS

Type: MBT 9110.

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships.

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate is a renewal of certificate N° 06871/D1 BV, which expires on 28/05/2014

This certificate will expire on: 28 May 2019

For BUREAU VERITAS,

At BV FREDERICIA, on 10 Apr 2014,

Jesper Jensen



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

TEMPERATURE TRANSMITTERS Type: **MBT 9110**.

- MBT 9110 Isolated
- MBT 9110 (084V7443) isolated EEx ia IIC T4/T6 according to NEMKO Certificate 98 D.123821
- MBT 9110 Standard
- MBT 9110 (084V7441) standard EEx ia IIC T4/T6 according to NEMKO Certificate 98 D.123937

2. DOCUMENTS AND DRAWINGS:

- Shipping Approval document 980309 MBT 9110.
- BSI Certificate N° FM 30658.
- Data Sheet N° IC.PD.P40.O1.02./520B1961.

3. TEST REPORTS:

Danfoss: Test report 084Z9626PR dated March 20, 1998.

Delta: Test report N° KAP250060-2 dated 1996-07-22.

NEMKO: Ex Certificates No. 98 D.123821 and No. 98 D.123937.

4. APPLICATION / LIMITATION:

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS**.
- 4.3 - The fitting aboard to be the same as used for the test.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The **MBT 9110 Temperature Transmitters** are to be supplied by **DANFOSS A/S** in accordance with the type described in this certificate.
- 5.2 - This type of product is within the category DBV of Bureau Veritas Rule Note NR320.
- 5.3 - **DANFOSS A/S** has declared to Bureau Veritas that the type of product described in this certificate is manufactured at the following site:

Danfoss (Tianjin) Ltd-Industrial Automation Business Unit
No.9 Quanhui Rd.,
Wuqing Development Area,
Tianjin
TIANJIN
CHINA

- 5.4 - Each equipment is to be supplied with manual (s) for installation, use and maintenance.

6. MARKING OF PRODUCT:

- Maker's name or trade mark,
- Serial number of the units,
- Equipment type number or model identification under which was type-tested,
- Ex marking, as relevant.

7. OTHERS:

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the temperature transmitters at any time and that **DANFOSS A/S, Head Office, DK-6430 NORDBORG - DENMARK** will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the temperature transmitters and the conditions of this approval.

7.2 - This Certificate supersedes the Type Approval Certificate N° 06871/D1 BV issued on 15/11/2013 by the Society.

*** END OF CERTIFICATE ***