



Type Approval Certificate Extension

This is to certify that Certificate No. 98/70036(E3) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	Danfoss A/S	
PLACE OF PRODUCTION	Danfoss A/S DK-6430 Nordborg Denmark	PR Electronics Lerbakken 10 DK-8100 Rønne, Denmark
DESCRIPTION	Temperature transmitter	
TYPE	MBT 9110	
APPLICATION	Marine, offshore and industrial use for applications in environmental categories ENV1, ENV2, ENV3, ENV4 and ENV5 as defined in LR Test Specification No. 1:2002 and where the test specification is satisfactory for the intended operation.	
STANDARD	Manufacturer's Specification EN50014; EN50020	
ADDITIONAL TESTS	Enclosure Protection: IP67	

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. TA98/70036(E4) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 97/70036(E3) to which this extension should be attached.

Certificate No.	98/70036(E4)
Issue Date	04 January 2013
Expiry Date	26 February 2018
Sheet	1 of 1


Poul Erik Hansen

Copenhagen Design Support Office

Lloyd's Register EMEA
Strandvejen 104A, DK-2900 Hellerup

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Marine Design Appraisal Document

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Date
07 May 2013

Please quote this reference number on all future communications
TA/I102669/1201293/PEH

THE LR TYPE APPROVAL SYSTEM, 2002
Issued to: DANFOSS A/S, Nordborg-Denmark
for: TEMPERATURE TRANSMITTERS, type MBT 9110
TYPE APPROVAL CERTIFICATE No. 98/70036(E4)

1. The under-noted documents have been reviewed for compliance with the requirements of the LR Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Request Form LR6606

Danfoss Data Sheet IC.PD.P40.01.02/520B1961

Also as listed in DADs associated with certificates numbered: 98/70036(E3), 98/70036(E2); 98/70036(E1) & 98/70036


Poul Erik Hansen

Senior Surveyor, Electrical Section

13.12.2012
Not dated

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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Part 3
Transmitters/Transducers (Part 3)

Producer/Licence No.	Item Description	Technical Details	Category/ Additional Tests	Remarks	Cert. No.
Danfoss A/S, DK-6430 Nordborg, Denmark.	Temperature transmitter Type: MBT 9110	Power Supply (Vdc): 8 - 35 Input: Thermocouple (IEC60584) Pt100 (IEC60751) 0 - 300 lin Ω $\pm 75mV$ 0 - 20mA Output: 4 - 20mA current loop	ENV1 ENV2 ENV3 ENV4 ENV5 (1996) Enclosure rating (IP68)	Expires: 26 February 2018 See data sheet IC.PD.P40.O1.02/520B1961	98/70036 (E4)

Paul E. Hansen