

## Type Approval Certificate Extension

This is to certify that Certificate No. 88/70218(E6) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

<b>PRODUCER</b>	<b>Danfoss A/S</b> <b>DK-6430 Nordborg</b> <b>Denmark</b>
<b>PLACE OF PRODUCTION</b>	Danfoss Sp. z o.o. Ul. Chrzanowska 5 PL-05 825 Grodzisk Mazowiecki, POLAND
<b>DESCRIPTION</b>	Pressure Controller
<b>TYPE</b>	RT 112
<b>APPLICATION</b>	Marine, offshore and industrial use in environmental categories ENV1, ENV2 and ENV3 as defined in LR Test Specification No. 1: 1990 where the test specification is satisfactory for the intended operation/location
<b>ADDITIONAL CODES</b>	EN 60947-5-1:1992 (IEC 60947-4-1: 1990)
<b>RATINGS</b>	Pressure range: 0.1 bar to 1.1 bar. Switch Ratings: AC1: 10A, 400V; AC3: 4 A, 400V; AC15: 3A, 400V, DC13:12W, 230V

*"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. TA 88/70218(E7) and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

All other details remain as the previous Certificate No. 88/70218(E6) to which this extension should be attached.

<b>Certificate No.</b>	<b>88/70218(E7)</b>
<b>Issue Date</b>	<b>22 May 2013</b>
<b>Expiry Date</b>	<b>05 June 2018</b>
<b>Sheet</b>	<b>1 of 1</b>

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

  
Poul Erik Hansen  
Copenhagen Design Support Office



# Marine Design Appraisal Document

Lloyd's Register EMEA  
Copenhagen Design Support Office  
Strandvejen 104A  
DK-2900 Hellerup  
Denmark

Date  
22 May 2013

Please quote this reference number on all future communications  
TA/103520/1300282/PEH

**LLOYD'S REGISTER TYPE APPROVAL SYSTEM, 2002**  
Issued to: Danfoss A/S, Nordborg - Denmark  
for: Pressure Controller type: RT112  
TYPE APPROVAL CERTIFICATE No.88/70218(E7)

The under-noted documents have been reviewed for compliance with the requirements of Lloyd's Register's Type Approval System, 2002 and this Design Appraisal Document is a supplement to the Certificate.

**APPROVAL DOCUMENTATION**

Request form 6606  
Danfoss Data Sheet – IC.PD.P10.B4.04-520B3975

13.03.2013

All other conditions remain as listed in the Design Appraisal Documents associated with previous Type Approval certificates.

**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.*

Poul Erik Hansen  
Senior Surveyor, Electrical Section

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

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**Part 3  
Switches - Pressure (Part 3)**

Producer/Licence No.	Item Description	Technical Details	Category/ Additional Tests	Remarks	Cert. No.
Danfoss A/S, Norborgvej DK-6430, Nordborg Denmark.	Pressure switches with bellows sensing element Type: RT 112	Range (bar): 0.1 to 1.1 10 A, 400V Contact rating: AC1: 4 A, 400V AC3: 3 A, 400V AC15: DC13: 12W, 230V	ENV1 ENV2 ENV3 (1990)	Expires: 5 June 2018 see Product description: IC.PD.P10.B4.04-520B3975	88/70218 (E7)

*Paul B.L. Hansen*