



## Type Approval Certificate Extension

*This is to certify* that Certificate No. 87/00121(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 05 825 Grodzisk Mazowiecki Poland
<b>DESCRIPTION</b>	Pressure switches with diaphragm sensing element
<b>TYPE</b>	KPS 43 KPS 45 KPS 47
<b>APPLICATION</b>	Marine, offshore and industrial use for applications in environmental categories ENV1, ENV2, ENV3 and ENV4 as defined in LR Test Specification No. 1:2002 and where the test specification is satisfactory for the intended operation

*"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. TA87/70121(E7) and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

All other details remain as the previous Certificate No. 87/70121(E6) to which this extension should be attached.

<b>Certificate No.</b>	<b>87/70121(E7)</b>
<b>Issue Date</b>	<b>14 December 2012</b>
<b>Expiry Date</b>	<b>12 November 2017</b>
<b>Sheet</b>	<b>1 of 1</b>

  
Poul Erik Hansen  
Copenhagen Design Support Office

Lloyd's Register EMEA  
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# Marine Design Appraisal Document

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Date  
14 December 2012

Please quote this reference number on all future communications  
TA/I102511/1201236/PEH

## THE LR TYPE APPROVAL SYSTEM, 2002

Issued to: DANFOSS A/S, Nordborg-Denmark  
for: PRESSURE SWITCHES WITH DIAPHRAGM SENSING ELEMENT, types KPS 43, KPS 45, KPS 47  
TYPE APPROVAL CERTIFICATE No. 87/70121(E7)

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  
Danfoss Data Sheet IC.PD.P10.C3.02/520B4703

11.11.2012  
Not dated

### COMMENTS

No changes have been made to the product/material or documentation.

Poul Erik Hansen  
Senior Surveyor, Electrical Section

### 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  
Switches - Pressure (Part 3)

Producer/Licence No.	Item Description	Technical Details	Category/ Additional Tests	Remarks	Cert. No.
Danfoss A/S, DK-6430 Nordborg, Denmark.	Pressure switches with diaphragm sensing elements Types: KPS 43 KPS 45 KPS 47	Range (bar): 1 to 60 Switch action: Single point, double throw (SPDT) Contact rating: AC-1: 10A; 440V (ohmic) AC-3: 6A; 440V (inductive) AC-15: 4A; 440V DC-13: 12W; 220V (direct current)	ENV1 ENV2 ENV3 ENV4 (1985) Low temperature -25°C Enclosure IP67	Expires: 12 November 2017 See data sheet IC.PD.P10.C3.02/520B4703	87/70121 (E7)