[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

[3] EU-Type Examination Certificate Number: **DEMKO 14 ATEX 1406X Rev. 4**

[4] Product: **Pressure and Temperature Switches (RT*E series)**

[5] Manufacturer: **Danfoss A/S**

[6] Address: **Nordborgvej 81, 6430 Nordborg, Denmark**

[7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. **DK/ULD/ExTR14.0014/04.**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-11:2012**

[10] If the sign "**X**" is placed after the certificate number, it indicates that the product is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12] The marking of the product shall include the following:

II 2 G Ex ia IIC T6...T1 Gb -20 °C ≤ Ta ≤ +65 °C

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2015-02-03
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Notified Body
UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com

[13] [14]

Schedule
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[15] Description of Product

The RT*E series consists of pressure and differential pressure switches as well as temperature switch types. All variants have a single changeover contact (SPDT), and all actuation systems are mechanical.

The units are designated for industrial refrigeration and general industrial applications in hazardous areas. It includes usage in refrigeration systems with ammonia, hydrocarbons and other applications where the presence of flammable gases, vapours and mists are likely to occur.

Enclosures are Phenolic Resin with a stainless steel outer cover. The fascia has a conductive sputtered stainless steel / Polyester coating providing a low surface resistance.

The fascia connects to earth through a contact with a metallic shroud and is bonded to an earthed part of the enclosure by the manufacturer Danfoss.

Nomenclature

The following tables contain the variants that are covered by this certification. Information shows how each model differs between each variant.

Pressure Switch	
Variant	Maximum Working Pressure (bar)
RT113E	0.4
RT112E	7
RT1AE	22
RT116E	22
RT5E	22
RT6AEW	34
RT6AEB	34
RT6AES	34
RT117E	42
RT121E	7
RT260AE	22
RT262AE	11

Temperature Switch		
Variant	Range (°C)	Max permissible Bulb Temperature (°C)
RT9E	-45 °C to -15 °C	+150 °C
RT14E	-5 °C to +30 °C	+150 °C
RT101E	+25 °C to +90 °C	+300 °C
RT107E	+70 °C to +150 °C	+215 °C
RT123E	+150 °C to +250 °C	+300 °C
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Temperature range
The ambient temperature range is -20 °C to +65 °C.

The assigned temperature classification (T-class) is dependent on the process temperature of the equipment that the probe is installed in.

The relation between process temperature and the assigned temperature class is as follows:

RT*E Temperature Sensor

Process Temperature	**Temperature Classification**
300 °C	T1
289 °C	T2
194 °C	T3
129 °C	T4
94 °C	T5
79 °C	T6

RT*E Pressure Switch

Process Temperature	**Temperature Classification**
100 °C	T1
100 °C	T2
100 °C	T3
100 °C	T4
94 °C	T5
79 °C	T6

[13] **Schedule**

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Electrical data
U_i : 29 V
I_i : 500 mA
P_i : 1 W
L_i : 0.2 µH
C_i : 0.5 nF

Routine tests
Not applicable.

[16] Descriptive Documents
The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17] Specific conditions of use:
The enclosure fascia has been coated with a layer of stainless steel to prevent the accumulation of electrostatic charge. In order to ensure that there is no accumulation of electrostatic charge on the enclosure, the end user shall ensure that the external metal work of the enclosure is locally bonded to earth. Information on the durability of the coating with regards to use of the equipment is contained within the instruction manual.

[18] Essential Health and Safety Requirements
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The trademark Danfoss will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.