

EC-TYPE EXAMINATION CERTIFICATE



Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC

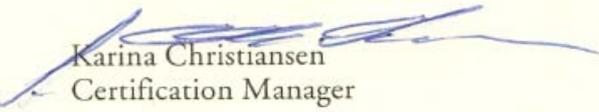
- [3] EC-Type Examination Certificate Number: DEMKO 03 ATEX 135011X
- [4] Equipment: Adjustable In-head Temperature transmitter, APAQ-HRFX/ APAQ-HCFX
- [5] Manufacturer: Inor Process AB
- [6] Address: Box 9125, SE-200 39 Malmö, Sweden
- [7] This equipment or protective system and any acceptable variation there to is 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 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems 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. 135011
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 E incl. A1+A2 EN 50020: 2002 E EN 50284: 1999 E
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- [11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.
- [12] The marking of the equipment or protective system shall include the following:

 II 1G EEx ia IIB T4/T5/T6

On behalf of UL International Demko A/S

Herlev, 2003-07-04


Karina Christiansen
Certification Manager

UL International Demko A/S

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Certificate: 03 ATEX 135011X

This certificate may only be reproduced in its
entirety and without any change, schedule included



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[13]

[14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 03 ATEX 135011X
Report: 135011-04/SR5007390

[15] Description of Equipment or protective system

APAQ-HRFX / APAQ-HCFX is a family of 2-wire transmitters intended for temperature measurement in process industry. The input is either of resistance or voltage type. The output signal is standard 4 - 20 mA. Configuration is done by solder jumpers and 2 potentiometers. Selection of sensor type, measuring range and measuring starting point (zero) is made with jumpers. Fine-tuning of span and zero is made with potentiometers. The transmitter is made for mounting in DIN standard head and is intended to be mounted in hazardous area. The transmitter is powered with an intrinsic safe power supply unit, which is mounted outside the hazardous area.

APAQ-HRFX is for PT100 input and APAQ-HCFX is for thermocouple input.

Temperature range:

Ambient temperature range

-40 °C to +85 °C
-40 °C to +55 °C
-40 °C to +40 °C

Temperature class

T4
T5
T6

Electrical data

Intrinsically safe specifications:

The equipment must be electrically connected (terminal 4 and 5) via a certified isolating interface / zener barrier having double or reinforced insulation, which shall be placed outside the hazardous area.

U_i : 30 V
I_i : 100 mA
P_i : 0,7 W
L_i : 10 µH
C_i : 30 nF

Output terminals (sensor terminals 1,2 and 3)

U_o : 30 V
I_o : 100 mA
P_o : 0,7 W
L_o : 12 mH
C_o : 220 nF

Installation instructions

For ambient temperatures below -10 °C and above +60 °C use field wiring suitable for both minimum and maximum ambient temperature.

[16] Report No.

Project Report No.: 135011-04/SR5007390 (Hazardous Location Testing)

Documents:

The Schedule documents are listed in the document S-9124-E, dated 2009-05-25, entitled "List of scheduled and related drawings".

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[14]

Schedule
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[17]

Special conditions for safe use:

- The equipment must be electrically connected via a certified isolating interface / zener barrier having double or reinforced insulation which shall be placed outside the hazardous area.
- The apparatus must be installed in an enclosure having an Ingress Protection for the actual use and with an Ingress Protection of at least IP20.
- If mounted in a plastic enclosure the requirement from EN 60079-26:2007, § 4.5 shall be taken into consideration.

[18]

Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the ATEX directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

Additional Information

These devices have been additionally evaluated to EN 60079-0:2006, EN 60079-11:2007, and EN 60079-26:2007 and are now marked

 **II 1G Ex ia IIB T4/T5/T6.**

Certification Manager

Jan-Erik Storgaard



Notified Body

Date of issue: 2009-06-23

Revised: 2009-10-23

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