

[1] **EC-TYPE EXAMINATION CERTIFICATE**

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



[3] EC-Type Examination Certificate Number: DEMKO 06 ATEX 141331X

[4] Equipment: Adjustable In-head Temperature transmitter, TT 10 C^{Ex}

[5] Manufacturer: KROHNE MESSTECHNIK GMBH & CO KG

[6] Address: Ludwig-Krohne-Strasse 5, Duisburg, D-47508, Germany

[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. 141331

[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, 2006-12-19


Karina Christiansen
Certification Manager

UL International Demko A/S

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Certificate: 06 ATEX 141331X

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Schedule

[13]

[14]

EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 06 ATEX 141331X

[15] Description of Equipment or protective system

TT 10 C (Ex) is a 2-wire transmitter intended for temperature measurement in process industry. The input is Pt100 resistance type. The output signal is standard 4-20 mA. Configuration is done by solder jumpers and 2 potentiometers. Selection of measuring range (span) and measuring starting point (zero) is made with jumpers. Fine-tuning of span and zero is made with potentiometers. The transmitter is intended for mounting in DIN standard head and to be mounted in hazardous area. The transmitter is powered with an intrinsic safe power supply unit, which is mounted outside the hazardous area.

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 is placed, outside the hazardous area.

U_i : 30 V

I_i : 100 mA

P_i : 0,7 W

L_i : 10 μ H

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

[16] Report No.

Project Report No.: 141331-01

The scheduled drawings are listed in the document S-9618-A, dated 2006-12-11, entitled "List of scheduled and related drawings"

UL International Demko A/S

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Certificate: 06 ATEX 1413311X

Report: 141331-01



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Schedule


EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 06 ATEX 141331X

- [17] Special conditions for safe use:
- The equipment must be electrically connected via an 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 50284 § 4.4.3 shall be taken into consideration.
- [18] Essential Health and Safety Requirements
Concerning ESR this Schedule verifies compliance with the Ex standards 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.

On behalf of UL International Demko A/S

Herlev, 2006-12-19


Karina Christiansen
Certification Manager