

[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 141335X**

[4] Equipment: **2-wire Transmitter, TT 50 C**

[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. 141335

[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.

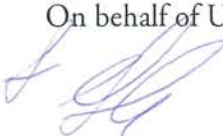
[11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.

[12] The marking of the equipment or protective system shall include the following:

 **II 1G    EEx ia IIC 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 141335X

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## Schedule

[13]

### EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 06 ATEX 141335X

[14]

[15] Description of Equipment or protective system

TT 50 C is an isolated two-wire transmitter intended for temperature measurement in process industry. The input signal is either of resistance or voltage type (E.g. Thermocouples, Pt100, Pt1000 (up to 2000 ohm) and mV-inputs between -1V to +1V). The transmitter is calibrated and configured with a PC, through the output. The transmitter is intended to be mounted in hazardous area and is powered from 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 +65 °C

-40 °C to +50 °C

**Temperature class**

T4

T5

T6

Electrical data

Intrinsically safe specifications:

The equipment must be electrically connected (terminal 5 and 6) via an approved or certified galvanically isolated interface/ zener barrier placed outside the hazardous area.

$U_i$  : 30 V

$I_i$  : 100 mA

$P_i$  : 0,9 W

$L_i$  : 1 mH

$C_i$  : 1 nF

The terminals 1,2,3 and 4 of the transmitter may only be connected to transducers complying with 'Simple Apparatus' according to EN 50020 § 5.4.

[16] Report No.

Project Report No.: 141335-01

The scheduled drawings are listed in the document S-9621, date 2006-12-11, Rev A entitled "List of scheduled and related drawings".

[17] Special conditions for safe use:

- The equipment must be electrically connected via an approved or certified galvanically isolated interface/zener barrier placed outside the hazardous area.

**UL International Demko A/S**

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# Schedule

## EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 06 ATEX 141335X

- The transmitter is calibrated and configured with a PC, which can be connected to the transmitter output (terminal 5 and 6). When programming the transmitter by PC and communication interface the intrinsically safe data shall be observed.
- 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.  
The requirement from EN50284 § 4.4.3 (The chargeable non-conductive surface or its projection shall be limited to 4 cm<sup>2</sup> for apparatus of Group IIC) is not fulfilled. When mounted in Ex-compatible enclosures, such as junction boxes or DIN Standard Head, the requirement is fulfilled.

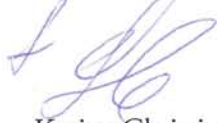
### [18] Essential Health and Safety Requirements

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