[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 or Protective System**: 2-wire Transmitter, TT 50 C**

[5] Manufacturer: **KROHNE Messtechnik GmbH**

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

[7] This equipment or protective system 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 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. **141335-02**

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

EN 60079-0:2006 **EN 60079-11:2007** **EN 60079-26:2007**

[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:

Ex II 1 G Ex ia IIC T4/T5/T6

Certification Manager
Jan-Erik Storgaard

Date of issue: 2006-12-19
Re-issued: 2010-09-14

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[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE No.**
DEMKO 06 ATEX 141335X
Report: 141335-02/08CA62405

[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.

Nomenclature for type*: NA*

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

Ambient temperature range	Temperature class
-40 °C to +85 °C	T4
-40 °C to +65 °C	T5
-40 °C to +50 °C	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.

Ui	:	30 V	Uo	:	30 V
Ii	:	100 mA	Io	:	25 mA
Pi	:	0,9 W	Po	:	190 mW
Li	:	1 mH	Lo	:	19 mH
Ci	:	1 nF	Co	:	31 nF

The terminals 1,2,3 and 4 of the transmitter may only be connected to transducers complying with 'Simple Apparatus' according to EN 60079-11 clause 5.7.

Installation instructions
The apparatus shall be installed into a enclosure at least IP20.

Mounting instructions
Refer to "Instructions".

Routine tests
The transformer TR 301 shall be tested according to the EN 60079-11 cl. 8.2 test voltage 1,5 kV.

[16] Report No.
Project Report No.: 141335-02/08CA62405 (Hazardous Location Testing)

Documents:
The Schedule documents are listed in the document entitled "List of scheduled and related drawings" S-9621-B, dated 2010-09-13.

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE No.**
DEMKO 06 ATEX 141335X
Report: 141335-02/08CA62405

[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.
- 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 with an Ingress Protection at least IP20. The requirement from EN 60079-26 clause 4.5.2 (The chargeable non-conductive surface or its projection shall be limited to 400 mm^2 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 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.

Certification Manager
Jan-Erik Storgaard

Date of issue: 2010-09-14

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