[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 141333X**

[4] Equipment or Protective System: **Intelligent Temperature Transmitter, TT 30 R**

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

[6] Address: **Ludwig-Krohne-Strasse 5, Duisburg, D-47508, 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. 141333

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

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

[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:

II (1)G [Ex ia] IIC

Certification Manager
Jan-Erik Storgaard

Date of Issue: 2006-12-19
Re-issued: 2011-02-07

Notified Body UL International Demko A/S, Lyskaer 8, P.O. Box 514, DK-2730 Herlev, Denmark, Tel. +45 44 85 65 65, info.dk@dk.ul.com
www.ul-europe.com

[13] [14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 06 ATEX 141333X
Report: 141333-03/SR7265536

[15] Description of Equipment or protective system

TT 30 R Ex is an isolated 2-wire transmitter intended for temperature measurement in process industry. The input signal is either of resistance, mA or voltage type. The output signal is standard 4-20 mA. Power to the transmitter is the same as the output. The transmitter is made for mounting on a standard DIN rail. The transmitter is calibrated and configured with a PC, which can be connected to the transmitter via a separate connector. When calibrate/ configure 'online' with the input connected to hazardous area the ATEX certified version of PC cable must be used. The transmitter is intended to be mounted outside hazardous area and powered with an intrinsic safe power supply unit. The input of the transmitter can be connected to a temperature sensor located in hazardous area.

Temperature range

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

Ambient temperature range	Temperature class
-20 °C to +70 °C	The transmitter is to be placed outside hazardous area

Electrical data

Intrinsically safe specifications:

The equipment must be electrically connected (terminal 5 and 6) via a certified isolating interface/zener barrier and shall be placed outside the hazardous area.

Ui : 30 V
Ii : 100 mA
Pi : 0,9 W
Li : 0 mH
Co : 1 nF

Terminal 1-2-3-4 (Intrinsically safe sensor terminals)

U_o : 30 V
I_o : 27 mA
L_o : 50 mH
Co : 52 nF

[16] Report No.

Project Report No.: 141333-02/08CA62405 (Hazardous Location Testing)
141333-03/SR7265536

Documents:
The Schedule documents are listed in the document entitled "S-9636-B".

[13] [14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 06 ATEX 141333X
Report: 141333-03/SR7265536

[17] Special conditions for safe use:

- The equipment must be electrically connected via an certified isolating interface/ zener barrier and shall placed outside the hazardous area.
- The transmitter is calibrated and configured with a PC. A special jack is used for connecting the PC to the transmitter. When calibrate/ configure 'online' with the input connected to hazardous area the ATEX certified version of PC Cable, certificate 06 ATEX 141337X, must be used.
- Isolation input/output/PC" of the Type TT 30 R Ex mentioned in the data sheet, indicates signal isolation only. It shall not be interpreted as an IS galvanic isolation like an isolating barrier. Therefore ordinary care in selecting barrier and grounding should be considered.

[18] Essential Health and Safety Requirements

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

Additional information

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.