

EC-TYPE EXAMINATION CERTIFICATE



[1]

[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 137949X Rev. 1**

[4]

Equipment or Protective System: **Expert 1400/3400 - Hydrostatic Pressure Transmitters**

[5]

Manufacturer: **MJK Automation ApS**

[6]

Address: **Byageren 7, DK-2850 Nærum, Denmark**

[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. **13CA39469**

[9]

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

EN 60079-0:2012

EN 60079-11:2012

[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 2 G Ex ia IIC T4...T6

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Equipment described herein ("Certified Equipment") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the equipment sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2006-10-17

Re-issued: 2013-12-30

Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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Schedule
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Report: 13CA39469

[15]

Description of Equipment or protective system

MJK Expert 1400/3400 - Hydrostatic Pressure Transmitters are designed for level measurement by submerging the transmitter in open channels, drains and tanks – also in explosion hazardous environments. Diaphragms are made from ceramic.

Measuring ranges from 0 – 0,3 m to 0 – 300 m.

MJK model 1400 Level transmitter has a 22 mm external diameter and is made from stainless steel.

MJK model 3400 Level Transmitter has a 50 mm external diameter and is made from antistatic PPS

Nomenclature for types 1400 and 3400:

203909 Model 1400	203949 Model 3400	measuring range 0 – 3 bar
203910 Model 1400	203950 Model 3400	measuring range 0 – 10 bar
203911 Model 1400	203951 Model 3400	measuring range 0 – 0,3 mWG
203912 Model 1400	203952 Model 3400	measuring range 0 – 1 mWG
203913 Model 1400	203953 Model 3400	measuring range 0 – 3 mWG
203914 Model 1400	203954 Model 3400	measuring range 0 – 5 mWG
203915 Model 1400	203955 Model 3400	measuring range 0 – 10 mWG
203916 Model 1400	203956 Model 3400	measuring range 0 – 30 mWG
203917 Model 1400	203957 Model 3400	measuring range 0 – 100 mWG
203918 Model 1400	203958 Model 3400	measuring range 0 – 300 mWG
-	203961 Model 3400	measuring range 0 – 0,3 m, 1" RG top
-	203962 Model 3400	measuring range 0 – 1 m, 1" RG top
-	203963 Model 3400	measuring range 0 – 3 m, 1" RG top
209911 Model 1400		measuring range 0 – 1ft, 39ft Cable
209912 Model 1400,		measuring range 0 – 3ft, 39ft Cable
209913 Model 1400,		measuring range 0 – 10ft, 39ft Cable
209914 Model 1400,		measuring range 0 – 15ft, 39ft Cable
209915 Model 1400,		measuring range 0 – 30ft, 39ft Cable
209916 Model 1400,		measuring range 0 – 100ft, 105ft Cable
209917 Model 1400,		measuring range 0 – 300ft, 330ft Cable
209918 Model 1400,		measuring range 0 – 1000ft, 1030ft Cable

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

Ambient temperature range	Temperature class
-20 °C to +40 °C	T6
-20 °C to +50 °C	T5
-20 °C to +80 °C	T4

Electrical data

Intrinsically safe specifications:

Transmitter:

U_i : 30 V
 I_i : 101 mA
 P_i : 0.75 W
 L_i : 7 μ H + cable 1.5 μ H/m
 C_i : 3.5 nF + cable 800 pF/m

Installation instructions

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

Mounting instructions

Refer to Control Drawing 5222.



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[14]

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[16]

Report No.
 Project Report No.: 13CA39469 (Hazardous Location Testing)

Documents:

Description:	Drawing No.:	Rev. Level:	Date:
Description 1400 - 3400	5217	N/A	20. Dec. 2013
1400 Assembly Drawing	5218	A	02-10-2013
3400 Assembly Drawing	5219	A	02-10-2013
Control Drawing	5222	N/A	2013
Expert 1400/3400 (schematic)	5223	N/A	10/23/2013

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Specific conditions of use:

- Before taking into use the user shall make an evaluation of the compatibility between process media and the materials in the 1400 or 3400 pressure transmitter.
- The equipment must be connected via a certified interface/zener barrier placed outside the hazardous area.
- For installations in which both the Ci and Li of the connected apparatus exceeds 1% of the Co and Lo parameters (excluding the cable), then 50% of Co and Lo parameters are applicable and shall not be exceeded.
- For Model 3400: Warning - Clean only with a damp cloth to prevent the possibility of electrostatic discharge.

[18]

Essential Health and Safety Requirements

Concerning ESRs this Schedule verifies compliance with the Annex III of ATEX directive only. By placing the product on the market, the manufacturer declares compliance with other relevant Directives, and all other safety related requirements including those of Annex II of this Directive.

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.

