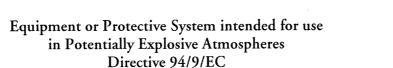
# EC-TYPE EXAMINATION CERTIFICATE





- [3] EC-Type Examination Certificate Number: **DEMKO 06 ATEX 0615699**
- [4] Equipment or Protective System: Manometer, Model 350 ATX
- [5] Manufacturer: Meriam Process Technologies
- [6] Address: 10920 Madison Avenue Cleveland, OH 44102, USA

[1]

[2]

- [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. 06CA15699

- [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
- [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.
- 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:

On behalf of UL International Demko A/S

Herley, 2006-07-18

Karina Christiansen Certification/Manager

**UL International Demko A/S** 

Certificate: 06 ATEX 0615699

An Affiliate of Underwriters Laboratories Inc. .

#### [13]

# Schedule

## [14]

# EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 06 ATEX 0615699

#### [15] Description of Equipment or protective system

The Smart Manometer, Models 350ATX and M2 Series are microprocessor based pressure-sensing devices that can be used to directly measure pressure. The 350 ATX and M2 Series are electronically identical.

The M2 Series is provided with an optional rubber boot.

These devices have been additionally evaluated to EN 60079-0:2006 and EN 60079-26:2004 and are now marked with the symbol Ex instead of EEx.

Temperature range

The ambient temperature range is -5 °C to +50 °C.

#### Electrical data

The devices are powered by four batteries in series and has been evaluated for use with the following:

Manufacturer	Part No.	Type
Duracell	MN1500	Alkaline
Duracell	PC1500	Alkaline
Varta /	4906	Alkaline

#### Routine tests

None.

#### [16] Report No.

Project Report No.: 0615699 (Hazardous Locations Testing) 0620278 (Hazardous Locations Testing) 08NK05740 (Hazardous Locations Testing)

Drawings:		
Number	Date	Description
9P000025, rev. B	2008-01-14	Label, 350 ATX
9P000074, rev A	2007-12-13	Label, M2 Series
9A000017, rev. A	2007-04-16	Battery compartment label
9P000057, rev. B	2007-04-05	Battery cover, M2 Series
9R000011, rev. IR	2006-06-06	Overlay, 350 ATX
9R000030, rev. A	2008-01-14	Overlay, M2 Series
9R000013, rev. C	2008-03-20	Main Assembly, 350 ATX
9R000029, rev. D	2008-03-20	Main Assembly, M2Series
9S000009, rev. A	2008-01-14	Schematic (Main PCB)
9B000006, rev. F	2008-04-01	Assembly/BOM (Main PCB)
9P000024PN01, rev. A	2007-03-06	Trace layout (Main PCB)

## **UL International Demko A/S**

Certificate: 06 ATEX 0615699 Report: 08NK05740



[13]

# Schedule

[14]

# EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 06 ATEX 0615699

Number	Date	Description
9P000024, rev. B	2007-03-05	PCB Bare Board (Main)
9S000010, rev. A	2008-01-14	Schematic (Sensor ADC)
9B000009, rev. B	2008-01-14	Assembly/BOM (Sensor ADC)
9P000022PN01, rev. A	2007-03-06	Trace layout (Sensor ADC)
9P000022, rev. B	2007-03-05	PCB Bare Board (Sensor ADC)
9S000011, rev. A	2008-01-14	Schematic (Dry Differential)
9B000010, rev. C	2008-03-06	PCB Assembly/BOM (Dry Differential)
9P000023, rev. C	2008-01-14	Trace layout (Dry Differential)
9S000024, rev. A	2008-01-14	Schematic (Wet Differential)
9B000025, rev. B	2008-03-06	PCB Assembly/BOM (Wet Differential)
9P000079, rev. A	2008-01-14	PCB Bare Board (Wet Differential)
9S000025, rev. A	2008-01-14	Schematic (SE Isolated)
9B000026, rev. D	2008-03-06	PCB Assembly/BOM (SE Isolated)
9P000080, rev. A	2008-01-14	PCB Bare Board (SE Isolated)
9S000012, rev. A	2008-01-14	Schematic (LCD)
9B000011, rev. A	2008-01-14	BOM (LCD)
9A000011, rev. IR	2006-06-06	LCD Assembly
9R000012, rev. C	2008-03	Instruction Manual, 350 ATX
9R000045, rev. C	2008-03	Instruction Manual, M2 Series
9R68, rev. A	2008-03	Instruction Manual, M2 Series
9R000056, rev. IR	2007-04-25	Intrinsic Safety Control
		Document, Series M2
		(Model M202)

## [17] Special conditions for safe use:

- The devices are marked: "Warning: Do not remove batteries in a potentially explosive atmosphere".
- The devices are for use with the following batteries: Duracell Part Numbers MN1500 and PC1500 and Varta Part Number 4906.

## [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.

[13]

# Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 06 ATEX 0615699

## Additional information

The Models 350ATX and M2 Series have in addition passed the tests for Ingress Protection to IP 40 in accordance with EN60529: 1991/A1 2001.

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

Herley, 2008-04-10

Jan-Erik Storgaard
Certification Manager

January 25, 2010

Timothy Lint Adalet/Scott Fetzer Co. 4801 W. 150<sup>th</sup> St. Cleveland, OH 44135, USA

Our Reference: DEMKO 06 ATEX 0615699 Project: 10NK09964

Your Reference: T. Lint 7/2/10

Subject: Completion of Project 10NK09964: ATEX Investigation - Alternate

Encapsulation of the Models 350 ATX and M2 Series Smart Manometers.

The following revisions related to the above certificate number were submitted for our review.

1) Alternate Encapsulations Sylgard 182 and 184, manufactured by Dow Corning.

2) Revised Product Manuals for the M2 Series Manometers.

The alternate encapsulations were considered acceptable as they belong to the same product family as the currently certified encapsulation, Part No. 255 from the same manufacturer, having an identical 200°C temperature rating and similar properties, and no tests were considered necessary.

UL Demko's (Notified Body)/UL's investigation of your product has been completed under the above project number and the subject product was determined to comply with the applicable requirements of the standards listed on your ATEX certificate DEMKO 06 ATEX 0615699:

EN 60079-0:2006, EN 50020:2002, and EN 60079-26:2004

These standards have been replaced by more current standards in the Official Journal. It is your responsibility to review the most up-to-date standards to determine whether your product still complies with the state-of-the-art requirements of the ATEX Directive (94/9/EC). The next time the product is revised and significant changes take place, we will need to evaluate your product to the current standards for compliance. At that time, contact UL and we will open a project to update your ATEX certificate to the current standards.

If you have any questions or comments, please feel free to contact me.

Very truly yours,

Reviewed by:

Reviewed by:

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David P. Malohn Engineering Leader Hazardous Locations Underwriters Laboratories Inc.

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