

CERTIFICATE

(1) EC-Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 04ATEX1081 X** Issue Number: **3**

(4) Equipment: **Absolute, Relative and Differential Pressure Transmitters Type 33X Ei (LV), Type 35X Ei (LV), Type 36XW Ei (LV), Type PD-33X Ei (LV), Type PD-39X Ei (LV), Type 33X M Ei (LV) and Type 36X M Ei (LV).**

(5) Manufacturer: **Keller AG**

(6) Address: **St. Galler Strasse 119, 8404 Winterthur, Switzerland**

(7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the 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 test report number 215035600.

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

**EN 60079-0 : 2009
EN 50303 : 2000**

EN 60079-11 : 2007

EN 60079-26 : 2007

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment 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 according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.


(12) The marking of the equipment shall include the following:



**II 1 G Ex ia IIC T4 ... T6
I M 1 Ex ia I**

This certificate is issued on 19 March 2012 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.


R. Schuller
Certification Manager

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 04ATEX1081 X**

Issue No. 3

(15) **Description**

The Absolute, Relative and Differential Pressure Transmitters Type 33X Ei (LV), Type 35X Ei (LV), Type 36XW (LV), Type PD-33X Ei (LV), Type PD-39X Ei (LV), Type 33X M Ei (LV) and Type 36X M Ei (LV) are used for the measurement of absolute, relative or differential pressure. The output is a 4 - 20 mA current signal or a 0 -10 V voltage signal and RS 485 serial communications signals. For each Type there are two versions possible: 'low voltage version' identified by the additional 'LV' behind the Type number and 'standard version', without 'LV'.

The transmitter is provided with a fixed cable or with a connector for the electrical connections.

Thermal data

The temperature class in relation to the maximum ambient temperature is as follows:

Ambient temperature range: -40 °C to +100 °C: Temperature class T4 and Group I
(Types 33X M Ei (LV) and 36X M Ei (LV)).
-40 °C to +85 °C: Temperature class T5
-40 °C to +70 °C: Temperature class T6

Electrical data

For all standard versions, (without 'LV'):

Supply and output circuit and RS 485 interface (terminals 1 to 5):

in type of protection intrinsic safety Ex ia IIC, Ex ia I only for connection to a certified intrinsically safe circuits, with following maximum values:

$U_i = 30 \text{ V}$; $I_i = 200 \text{ mA}$; $P_i = 640 \text{ mW}$;

$L_i = 0 \text{ mH}$; $C_i = 1 \text{ nF}$ (supply and current output); $C_i = 1 \text{ nF}$ (RS 485 interface and voltage output).

For all low-power versions, (with 'LV'):

Supply and output circuit and RS 485 interface (terminals 1 to 5):

in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuits, with following maximum values:

$U_i = 6,4 \text{ V}$; $I_i = 200 \text{ mA}$; $P_i = 640 \text{ mW}$; $L_i = 0 \text{ mH}$; $C_i = 18,4 \text{ }\mu\text{F}$.

The intrinsically safe supply and output circuits and the RS 485 interface are galvanically connected.

Installation instructions

The instructions provided with the equipment shall be followed in detail to assure safe operation.

(16) **Test Report**

No. 215035600.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 04ATEX1081 X**

Issue No. 3

(17) **Special conditions for safe use**

Pressure Transmitter Type 35X Ei may only be used for pressure measurement of a process medium that is not an explosive gas/air mixture, unless the sensor membrane is effectively protected from mechanical damage.

For ambient temperature range see (15).

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 215035600.