IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx DEK 14.0070X	Issue No: 0	Certificate history: Issue No. 0 (2015-01-08)
Status:	**Current**	Page 1 of 4	
Date of Issue:	**2015-01-08**		

Applicant:
Keller AG
St. Gallerstr. 119
CH 8404 Winterthur
Switzerland

Electrical Apparatus:
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).

Optional accessory:

Type of Protection:
Ex ia

Marking:
Ex ia IIC T4 ... T6 Ga
Ex ia I Ma
Ex ia IIIC T130 °C Da

Approved for issue on behalf of the IECEx Certification Body: R. Schuller

Position: Certification manager

Signature:
(for printed version)

Date: 2015-01-08

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

DEKRA Certification B.V.
Meander 1051,
6825 MJ Arnhem
The Netherlands

DEKRA

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Manufacturer:	**Keller AG** St. Gallerstr. 119 CH 8404 Winterthur **Switzerland**	
Additional Manufacturing location(s):		

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

NL/DEK/ExTR14.0076/00

Quality Assessment Report:

DE/EPS/QAR13.0004/01

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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.

CONDITIONS OF CERTIFICATION: YES as shown below:

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

For ambient temperature range see Thermal data.

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EQUIPMENT (continued):

Thermal data
The temperature class and maximum temperature of the enclosure T130 °C in relation to the maximum ambient temperature, applicable to a maximum dust layer thickness of 5 mm, is as follows:

Ambient temperature range:
-40 °C to +90 °C: Temperature class T4, T130 °C and Group I with Pi = 640 mW
for all types including Types 33X M Ei (LV) and 36X M Ei (LV).
-40 °C to +90 °C: Temperature class T4, T130 °C with Pi = 1.3 W exclusively for LV types
-40 °C to +85 °C: Temperature class T5, T130 °C with Pi = 640 mW.
-40 °C to +70 °C: Temperature class T6, T130 °C with Pi = 640 mW.
-40 °C to +65 °C: Temperature class T4, T130 °C with Pi = 1.1 W.
-40 °C to +40 °C: Temperature class T4, T130 °C with Pi = 1.3 W.

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 and Ex ia IIIC only for connection to a certified intrinsically safe circuits, with following maximum values:
Ui = 30 V; Ii = 200 mA; Pi = 640 mW or Pi = 1.1 W or Pi = 1.3 W (depending on Thermal data);
Li = 0 mH; Ci = 1 nF (supply and current output); Ci = 1 nF (RS 485 interface and voltage output).

For all low-voltage versions (with '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, Ex ia IIIC only for connection to a certified intrinsically safe circuits, with following maximum values:
Ui = 8.5 V; Ii = 200 mA; Pi = 640 mW or Pi = 1.1 W or Pi = 1.3 W (depending on Thermal data);
Li = 0 mH; Ci = 6.5 µF.

The intrinsically safe supply and output circuits and the RS 485 interface are galvanically connected. The dielectric strength of at least 500 V of the intrinsically safe circuits of the Absolute, Relative and Differential Pressure Transmitters is limited only by the overvoltage protection for LV versions.