

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 IBE 14.0044X Issue No: 0 Certificate history:
Status: Current Page 1 of 3 Issue No. 0 (2015-01-19)
Date of Issue: 2015-01-19
Applicant: Keller AG für Druckmesstechnik
St. Gallerstrasse 119
8404 Winterthur
Switzerland
Electrical Apparatus: Piezoresistive pressure transmitter
Optional accessory: Serie 23SYEi, 23YEi, 23YMEi, 25YEi, 26YEi and 26YMEi
Type of Protection: intrinsic safety 'ia'
Marking:
Ex ia I Ma
Ex ia IIC T6 - T4 Ga
Ex ia IIIC T130 °C Da

Approved for issue on behalf of the IECEx
Certification Body:

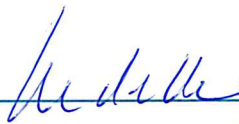
Prof. Dr. Tammo Redeker

Position:

Head of Certification Body

Signature:
(for printed version)

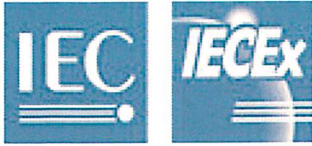
Date:


2015-01-19

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](http://www.iecex.com).

Certificate issued by:

IBExU Institut für Sicherheitstechnik GmbH
Certification Body
Fuchsmühlenweg 7
09599 Freiberg
Germany



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Manufacturer: Keller AG für Druckmesstechnik
St. Gallerstrasse 119
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" |
| IEC 60079-26 : 2006 Edition:2 | Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga |

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:

DE/IBE/ExTR14.0061/00

Quality Assessment Report:

DE/EPS/QAR13.0004/01



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Serie 23SYEi Pressure Transmitter with threaded port and without internal sealing
Serie 23YEi Pressure Transmitter with threaded port and with internal sealing
Serie 25YEi Pressure Transmitter with threaded port and front-flush diaphragm
Serie 26YEi Level transmitter for hydrostatic pressure measurement
Serie 23YMEi Pressure Transmitter with threaded port and with internal sealing for mining with M1 approval
Serie 26YMEi Level transmitter for hydrostatic pressure measurement for mining with M1 approval
Further details see attachment

CONDITIONS OF CERTIFICATION: YES as shown below:

The ambient and medium temperature range varies according to the operating conditions and is specified in the manual.

The permissible operating pressures are specified in the manufacturer's documents.

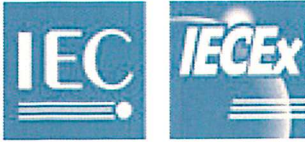
The electric strength of the metallic enclosure is $\leq 320 V_{SS}$.

The safety and installation instructions in the operating manual have to be taken into account.

For all cable sensors additional safety and installation instructions have to be taken into account (regarding high-charging processes in dust atmospheres).

Annex:

[Attachment 14_0044.pdf](#)



Technical Data:

Piezoresistive Pressure Transmitters

Series 23SYEi, 23YEi, 23YMEi, 25YEi, 26YEi and 26YMEi

| Ambient temperature range | T_a | -40 °C to +40/ 50/ 65/ 100 °C depending on temperature class T6 - T4 and type | | | | | | | | | | | | |
|--|------------------|---|---------------------|-------------|------|--------|------|-------|-------|--------|---------------------|-------------|------|--------|
| Degree of protection | | IP65/68 acc. to IEC 60529 | | | | | | | | | | | | |
| Power supply and data circuit (2-wire transmitter) | | fixed cable or connecting plug | | | | | | | | | | | | |
| maximum input voltage | U_i | 30 V | | | | | | | | | | | | |
| maximum input current | I_i | 200 mA | | | | | | | | | | | | |
| maximum input power | P_i | 0.64/ 1.1/ 1.33 W all transmitter types T4 : <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Ambient temp. T_a</th> <th>Power P_i</th> </tr> </thead> <tbody> <tr> <td>40°C</td> <td>1.33 W</td> </tr> <tr> <td>65°C</td> <td>1.1 W</td> </tr> <tr> <td>100°C</td> <td>0.64 W</td> </tr> </tbody> </table> 2- wire transmitter T6 : <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Ambient temp. T_a</th> <th>Power P_i</th> </tr> </thead> <tbody> <tr> <td>50°C</td> <td>1.33 W</td> </tr> </tbody> </table> | Ambient temp. T_a | Power P_i | 40°C | 1.33 W | 65°C | 1.1 W | 100°C | 0.64 W | Ambient temp. T_a | Power P_i | 50°C | 1.33 W |
| Ambient temp. T_a | Power P_i | | | | | | | | | | | | | |
| 40°C | 1.33 W | | | | | | | | | | | | | |
| 65°C | 1.1 W | | | | | | | | | | | | | |
| 100°C | 0.64 W | | | | | | | | | | | | | |
| Ambient temp. T_a | Power P_i | | | | | | | | | | | | | |
| 50°C | 1.33 W | | | | | | | | | | | | | |
| maximum internal capacitance | C_i | negligible | | | | | | | | | | | | |
| maximum internal inductance | L_i | negligible | | | | | | | | | | | | |
| Output (3-wire transmitter) | | | | | | | | | | | | | | |
| maximum output voltage | U_o | 14,7 V | | | | | | | | | | | | |
| maximum output current | I_o | 149 mA | | | | | | | | | | | | |
| maximum internal capacitance | C_i | 528 nF | | | | | | | | | | | | |
| maximum internal inductance | L_i | negligible | | | | | | | | | | | | |
| Characteristics of fixed cable: | L' wire | 1,2 µH/m | | | | | | | | | | | | |
| | C' wire-wire | 150 pF/m | | | | | | | | | | | | |
| | C' wire-shield | 250 pF/m | | | | | | | | | | | | |