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 TSA 14.0005X issue No.:0	Certificate history:
Status:	**Current**	
Date of Issue:	**2014-02-27** Page 1 of 3	

Applicant: **Kirchgaesser Industrieelektronik GmbH**
Am Rosenbaum 6
Ratingen 40882
Germany

Electrical Apparatus: **Pressure and Temperature Transducers PEM-EX-L and TEM-EX-L**
Optional accessory:

Type of Protection: **Intrinsic safety 'ia'**

Marking:
Kirchgaesser
Type PEM-EX-L**** or TEM-EX-L****
Ex ia I (Ta = -20 ... +70°C)
IECEx TSA 14.0005X
S/N: _____

Approved for issue on behalf of the IECEx Certification Body: Ujen Singh

Position: Quality and Certification Manager

Signature:
(for printed version)

Date: 27 FEBRUARY 2014

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:

TestSafe Australia
919 Londonderry Road
Londonderry NSW 2753
Australia

Test Safe AUSTRALIA

IECEx Certificate of Conformity

Certificate No.: IECEx TSA 14.0005X

Date of Issue: **2014-02-27** Issue No.: **0**

Manufacturer: **Kirchgaesser Industrieelektronik GmbH**
Am Rosenbaum 6
Ratingen 40882
Germany

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:
AU/TSA/ExTR12.0046/00

Quality Assessment Report:

DE/BVS/QAR06.0014/06

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The transducers are designated to measure relative and absolute pressures (PEM-EX-L) or temperatures (TEM-EX-L) in liquid and gaseous media. There are different possible housings for both transducers available. The devices are compact, without local display, with various electrical and process connections and with different output signals. The transducers are partially filled with a suitable casting compound. The detailed description of the models, please refer to Annexe of the certificate.

CONDITIONS OF CERTIFICATION: YES as shown below:

Please refer to Annexe of the certificate.

Annex: Annex for IECEx TSA 14.0005X.pdf

IECEx Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEx TSA 14.0005X	Issue No.:	0

Description of Equipment:

- **Pressure transducer PEM-EX-************

The first star represents the type of transducer and can be replaced by the following character:
L – Compact transducer without local display

The second to fourth stars represents properties which are irrelevant for the certification.

The fifth star represents the electrical connection and can be replaced by the following character:
A – Connection head with terminals
B to H – Various connectors
J – Fixed connection cable

The sixth star represents properties which are irrelevant for the certification.

The seventh star represents the power supply and can be replaced by the following character:
1 – Max. 30 VDC / 100 mA / 1W
2 – Max. 18.5 VDC
3 – Max. 13.5 VDC

The eighth star represents the output function and can be replaced by the following character:
A – Photocoupler output
B – Current output

The ninth star represents properties which are irrelevant for the certification.

The tenth star represents the potential separation and can be replaced by the following character:
A – Output not potential separated
B – Output potential separated

The eleventh star represents the type of housing and can be replaced by the following character:
1 – Long
2 – Short

➢ **Temperature transducer TEM-EX-**************

The first star represents the type of transducer and can be replaced by the following character:
L – Compact transducer without local display

The second to sixth stars represents properties which are irrelevant for the certification.

The seventh star represents the electrical connection and can be replaced by the following character:
A – Connection head with terminals
B to H – Various connectors
J – Fixed connection cable

The eighth star represents properties which are irrelevant for the certification.

The ninth star represents the power supply and can be replaced by the following number:
1 – Max. 30 VDC / 100 mA / 1W
2 – Max. 18.5 VDC
3 – Max. 13.5 VDC

The tenth star represents the output function and can be replaced by the following character:
A – Photocoupler output
B – Current output

The eleventh star represents properties which are irrelevant for the certification.

The twelveth star represents the potential separation and can be replaced by the following character:
A – Output not potential separated
B – Output potential separated

The thirteenth star represents the type of housing and can be replaced by the following character:
1 – Long
2 – Short

IECEx Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEx TSA 14.0005X	Issue No.:	0

Drawing list pertaining to Issue 0 of this Certificate:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
1-054000-00-08-B	1	Block Diagram	1.2	-
1-054000-00-09-B	1	PEM_L	1.2	-
1-054000-00-10-B	1	PEM_S	1.1	2012-03-27
1-054000-00-11-B	1	PTM_L	1.2	-
1-054000-00-12-B	1	Controller	1.2	-
1-054000-00-13-B	1	Voltage Regulator	1.3	-
1-054000-00-14-B	1	Mounting	1.1	2012-03-27
1-054000-00-15-B	1	Optocoupler	1.0	2012-03-27
1-054000-00-16-B	1	PEM_F	1.0	-
1-054000-00-19-B	1	PTM_F	1.0	-
3-054000-00-00-B	1	PCB PEM_L Rev. 1.3	1.1	-
3-054000-00-01-B	1	PCB PEM_S Rev. 1.4	1.2	-
3-054000-00-02-B	1	PCB PTM_L Rev. 1.3	1.1	-
3-054000-00-03-B	1	PCB PEM_F Rev. 1.1	1.1	-
3-054000-00-04-B	1	PCB PTM_F Rev. 1.0	1.0	-
2-054000-00-03-B	1	PEM-EX-L / TEM-EX-L	1.2	2013-11-21
2-054000-00-03-B	1	Parts List Bt054040	1.2	2013-11-21
Parts List Bt054028	2	PEM_L: Current+TFS	1.2	2013-04-10
Parts List Bt054029	1	PEM_L: Photocoupler+TFS	1.2	2013-04-10
Parts List Bt054031	1	PEM_S: Current	1.1	2014-02-04
Parts List Bt054032	1	PEM_S: Photocoupler	1.1	2014-02-04
Parts List Bt054034	2	PTM_L: Current+TFS	1.2	2014-02-04
Parts List Bt054035	2	PTM_L: Current+TS	1.2	2014-02-04
Parts List Bt054036	2	PTM_L: Photocoupler+TFS	1.2	2014-02-04
Parts List Bt054037	2	PTM_L: Photocoupler+TS	1.2	2014-02-04
Parts List Bt054049	2	PTM_L: Current+CS	1.2	2014-02-04
Parts List Bt054050	2	PTM_L: Photocoupler+CS	1.2	2014-02-04
Parts List Bt054052	2	PEM_L: Current+CS	1.2	2013-04-10

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Annexe for Certificate No.:	IECEx TSA 14.0005X	Issue No.:	0

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
Parts List Bt054053	1	PEM_L: Photocoupler+CS	1.2	2013-04-10
Parts List Bt054055	1	PEM_L: Complete	1.0	2013-04-10
Parts List Bt054059	2	PEM_L: Current+TS	1.2	2013-04-10
Parts List Bt054060	1	PEM_L: Photocoupler+TS	1.2	2013-04-10
Parts List Bt054063	1	PTM_F: Complete	1.0	2013-04-10
2-054000-00-12-B	1	Name Plate	1.0	2014-02-13

Conditions of Certification pertaining to Issue 0 of this Certificate:

1. The following parameters should take into account during installation:

	B – Current Output Function	
	Power Supply – 1	Power Supply – 3
Maximum Input Voltage U_i	30 V	13.5 V
Maximum Input Current I_i	100 mA	-
Maximum Input Power P_i	1 W	-
Maximum Internal Capacitance C_i	0.018 µF	
Maximum Internal Inductance L_i	0 mH	

	A – Photocoupler Output Function	
	Power Supply – 3	Power Supply – 2
Maximum Input Voltage U_i	13.5 V	18.5 V
Maximum Input Current I_i	-	-
Maximum Input Power P_i	-	-
Maximum Internal Capacitance C_i	0.018 µF	0 µF
Maximum Internal Inductance L_i	0 mH	0 mH

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