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 EPS 14.0074	Issue No: 2	Certificate history:
Status:	Current	Page 1 of 4	Issue No. 2 (2017-01-25)
Date of Issue:	2017-01-25		Issue No. 1 (2015-07-30)
			Issue No. 0 (2015-04-21)

Applicant: Schischek GmbH
Mühlsteig 45
90579 Langenzenn
Germany

Equipment: Explosion protected electrical sensor ExBin-..

Optional accessory:

Type of Protection: Increased safety "e", intrinsic safety "i", encapsulation "m", protection by housing "t"

Marking:

Ex e mb [ia Ga] IIC T6...T4 Gb

Ex tb [ia Da] IIIC T80°C...T130°C Db IP66

Approved for issue on behalf of the IECEx Certification Body: D. Zitzmann

Position: Manager Certification

Signature:
(for printed version)

Date: 2017-01-25

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:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany

IECEx Certificate of Conformity

Certificate No:	IECEx EPS 14.0074	Issue No: 2
Date of Issue:	2017-01-25	Page 2 of 4
Manufacturer:	Schischek GmbH Mühlsteig 45 90579 Langenzenn 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"
IEC 60079-18 : 2014 Edition:4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

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/EPS/ExTR14.0075/02

Quality Assessment Report:

DE/BVS/QAR07.0009/09

IECEx Certificate of Conformity

Certificate No: IECEx EPS 14.0074 Issue No: 2

Date of Issue: 2017-01-25

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Refer to attachment.

CONDITIONS OF CERTIFICATION: NO

IECEx Certificate of Conformity

Certificate No:	IECEx EPS 14.0074	Issue No: 2
Date of Issue:	2017-01-25	Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Update of standards and constructional change of enclosure.

Annex:

Schi_Ex BIN_IECEx_14TH0062_EPS 14.0074_2 - Attachment.pdf

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

The explosion protected electrical sensor, type ExBin-.. is used for the measurement of pressures, humidity and/or temperatures and for the conversion of measurements into switching signals. The equipment is intended for the application inside the hazardous area.

The ExBin-..is used stationary in a hazardous area.

The sensor circuits of the ExBin-.. can be used in hazardous areas of the category 1G and 1D if the related sensors comply with these requirements.

The Sensors type ExPro-B.. can be used in hazardous areas of the categories 2G and 2D and are available in different technical designs according to the respective application site.

The correlation between the explosion group and the permissible outer reactances can be obtained from the respective table.

Electrical data:

Supply..... (Terminals 1, 2)	U = 24 VAC/DC ± 20 %, 50 ..60 Hz U_m = 30 V
Auxiliary contacts..... (Terminals 3...4)	U = 24 VAC/DC ± 20 %, 50 ..60 Hz U_m = 30 V
Relay contacts..... (Terminals 5...10)	V AC = 250 V / 0,1 A 125 VA / 0,2 A 30 V / 0,5 A resp. V DC = 220 V / 0,1 A 110 V / 0,2 A 30 V / 0,5 A

The relay contacts are safely galvanically separated from the other circuits up to a maximum value of the rated voltage of 375 V.

Sensor circuits

(ExBin-A.., Ex-Bin-FR)

in ignition protection intrinsic safety Ex ia IIC

Maximum values:

U_0 = 7,14 V
I_0 = 8 mA
P_0 = 15 mW

	IIC	IIB	IIA
L_0	5 mH	10 mH	20 mH
C_0	1,5 µF	6,7 µF	8,6 µF

C_i = negligible small
L_i = negligible small

Sensor circuits

(ExBin-D..)

in ignition protection intrinsic safety Ex ia IIC

Maximum values:

U_0 = 7,9 V
I_0 = 6,4 mA
P_0 = 12,7 mW

	IIC	IIB	IIA
L_0	5 mH	10 mH	20 mH
C_0	1,5 µF	6,7 µF	8,6 µF

C_i = negligible small
L_i = negligible small

Sensor circuits NAMUR	in ignition protection intrinsic safety Ex ia IIC
(ExBin-N..)	Maximum values:

U_0 = 9,6 V
I_0 = 9,7 mA
P_0 = 24 mW

	IIC	IIB	IIA
L_0	5 mH	10 mH	20 mH
C_0	0,84 µF	3,8 µF	4,9 µF

C_i = negligible small
L_i = negligible small

Sensor circuits	in ignition protection intrinsic safety Ex ia IIC
(ExPro-B..)	Maximum values:

U_i = 9,6 V
I_i = 9,7 mA

C_i = 120 nF
L_i = negligible small

The intrinsic safe circuits are safely galvanically separated between each other and from the other non-intrinsic circuits up to a maximum of the rated voltage of 30 V.

Operating conditions:

- Ambient temperature range: -20°C to +50°C

- Do not open when hazardous atmosphere is present.

- Do not open when energized.

- Temperature class (group II) and max. surface temperature (group III) depending on used enclosure type (material):

Modell	Max. ambient temperature: +40°C	Max. ambient temperature : +50°C
ExBin (aluminium enclosure)	T6 (T80°C)	T6 (T80°C)
ExBin (stainless steel enclosure)	T5 (T95°C)	T4 (T130°C)