(1) # EC-Type Examination Certificate

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 94/9/EC**

(3) EC Type Examination Certificate Number

EPS 14 ATEX 1 657 **Revision 1**

(4) Equipment: Explosion protected electrical sensor, type ExBin-..

(5) Manufacturer: Schischek GmbH

(6) Address: Mühlsteig 45, D-90579 Langenzenn

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

(8) Bureau Veritas Consumer Products Services Germany GmbH, Notified Body No. 2004 in accordance with Article 9 of the Council Directive 94/9/EC of March 23rd 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 of the Directive. The examination and test results are recorded in the confidential report 14TH0062.

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

EN 60079-0:2012+A11:2013 **EN 60079-7:2007**

EN 60079-11:2012 **EN 60079-18:2009**

EN 60079-31:2014

(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 and the construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

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

II 2 (1) G Ex e mb [ia Ga] IIC T6...T4 Gb
II 2 (1) D Ex tb [ia Da] IIIC T80°C...T130°C Db IP66

Certification department of explosion protection

D. Zitzmann

Nuremberg, 30.07.2015

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(13) # Annex

(14) **EC-Type Examination Certificate EPS 14 ATEX 1 657** **Revision: 1**

(15) Description of equipment:

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.

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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

(ExBin-N..)

in ignition protection intrinsic safety Ex ia IIC

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

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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)

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(16) Test report: 14TH0062

(17) Special conditions for safe use:

None.

(18) Essential health and safety requirements:

Met by standards.

Certification department of explosion protection

Nuremberg, 30.07.2015

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