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 14.0023X	Issue No: 2	Certificate history:
Status:	Current	Page 1 of 4	Issue No. 2 (2017-01-16)
Date of Issue:	2017-01-16		Issue No. 1 (2015-11-06)
Applicant:	Schischek GmbH Mühlsteig 45 90579 Langenzenn Germany		Issue No. 0 (2014-09-16)
Equipment:	Explosion protect electrical sensor, type RedCos...		
Optional accessory:			
Type of Protection:	"nC", [ia], "tc"		
Marking:	Ex nC [ia Ga] IIC T6...T4 Gc Ex tc [ia Da] IIIC T80°C...T130°C Dc IP66		

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

Position: Head of Certification

Signature:
(for printed version)

Date: 2017-01-16

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

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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 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

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/ExTR14.0074/02

Quality Assessment Report:

DE/BVS/QAR07.0009/09

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The explosion protected electrical sensor, type RedCos-.. is used for the measurement of pressures, humidity and/or temperatures and for the conversion of measurands into standard signals. The associated sensors of type ExPro may be applied in hazardous areas of category 2G or 2D. Different sensor variants are available corresponding to the usage site.Two intrinsically safe sensor circuits which are available as an option may be installed into areas of categories 1 G or 1D. The sensors to be used shall comply with the requirements for these categories.The equipment is intended for the application inside the hazardous area.

The maximum permissible ambient temperature is 50 °C.

Electrical data see attachment.

CONDITIONS OF CERTIFICATION: YES as shown below:

Ambient temperature range: -20°C < T < +50°C.

The device may only be opened if there is no explosive atmosphere.

Do not open when energized.

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

Constructional change of enclosure cover.

Annex:

Anhang zu IECEx CoC_2.pdf

Annexe to: IECEx EPS 14.0023 X issue No.:2

Applicant: Schischek GmbH

Apparatus: Explosion protect electrical sensor, type RedCos-..

Electrical data:

Supply ..... $U = 24$ V AC/DC ±20%, 50...60 Hz

(terminals 1, 2) $U_m = 30$ V

Analog outputs..... I = 0(4)...20 mA

(terminals 3, 4, 5) U = 0(2)...10 V

$U_m = 30$ V

Digital sensor circuits..... type of protection Intrinsic Safety Ex ia IIC

(RedCos-D-.. / RedCos-P-..)

Maximum values: $U_o = 7.9$ V

$I_o = 48$ mA

$P_o = 95$ mW

C_i negligibly low

L_i negligibly low

For relationship between the explosion group and the permissible external inductances and capacitances, reference is made to the following table:

	IIC	IIB	IIA
L_o	2 mH	5 mH	10 mH
C_o	1.3 µF	5.8 µF	7.1 µF

Passive sensor circuits ..... type of protection Intrinsic Safety Ex ia IIC

(RedCos-A-..)

Maximum values: $U_o = 7.9$ V

$I_o = 6.4$ mA

$P_o = 12.7$ mW

C_i negligibly low

L_i negligibly low

For relationship between the explosion group and the permissible external inductances and capacitances, reference is made to the following table:

	IIC	IIB	IIA
L_o	2 mH	5 mH	10 mH
C_o	1.4 µF	6.3 µF	7.9 µF

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Managing Director: Michael Grytz Laboratory Accreditation ISO 17025 Reg.No. Schwerin HRB 3564

Analog outputs (optional)..... type of protection Intrinsic Safety Ex ia IIC

Maximum values:

U_o = 15.8 V

I_o = 85 mA

P_o = 336 mW

C_i negligibly low

L_i negligibly low

For relationship between the explosion group and the permissible external inductances and capacitances, reference is made to the following table:

	IIC	IIB	IIA
L_o	2 mH	5 mH	10 mH
C_o	0.33 µF	1.6 µF	1.8 µF

IRDA interface (optional) type of protection Intrinsic Safety Ex ia IIC

Maximum values:

U_o = 7.9 V

I_o = 48 mA

P_o = 95 mW

C_i negligibly low

L_i negligibly low

For relationship between the explosion group and the permissible external inductances and capacitances, reference is made to the following table:

	IIC	IIB	IIA
L_o	2 mH	5 mH	10 mH
C_o	1.3 µF	5.8 µF	7.1 µF

All circuits are safely electrically isolated from each other up to a peak value of the rated voltage of 30 V.