



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 12.0028 | Issue No: 3 | Certificate history: |
| Status: | Current | Page 1 of 4 | Issue No. 3 (2017-02-16) |
| Date of Issue: | 2017-02-16 | | Issue No. 2 (2015-08-25) |
| Applicant: | Schischek GmbH Mühlsteig 45 90579 Langenzenn Germany | | Issue No. 1 (2014-09-17) |
| Equipment: | Ex controller type ExReg-... | | Issue No. 0 (2012-10-06) |
| Optional accessory: | | | |
| Type of Protection: | intrinsic safety "i", protection by enclosure "tb", increased safety "e", protection by encapsulation "m" | | |
| Marking: | Ex e mb ib [ia Ga] IIC T6 Gb | | |
| | Ex tb ib [ia Da] IIIC T80°C Db IP66 | | |

Approved for issue on behalf of the IECEX
Certification Body:

Dieter Zitzmann

Position:

Head of certification

Signature:
(for printed version)

Date:

2017-02-16



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

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 60079-18 : 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/ExTR12.0036/03](#)

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 controller type ExReg is used for the control of processes in hazardous locations of zone 1 or zone 21 together with linear or rotary drives. The input values for pressure (ExReg-P, ExReg-V), humidity and temperature (ExReg-D mit ExPro-C) are measured by internal sensors. The appropriate sensors ExPro-C...for temperature and humidity can be used with different length, filters and connection methods. The intended use of the sensors ExPro is limited for category 2G/D and 3G/D. The internal and external sensors are supplied by intrinsic safe circuits. Also the display and buttons are part of intrinsic safe circuit. External sensors can be connected to the intrinsic safe "ia" outputs of version ExReg-A-.. for use inside zone 0/20, depending that the sensor has a category 1 approval. The supply terminals and terminals for sensor output and external devices are protected by type of protection "increased safety e". The main part of equipment including fuses and temperature fuses is protected by type of protection "encapsulation m". Also the intrinsic safe part is potted for exclusion of gas. Temperature range is from -20°C to +50°C. Electrical data and intrinsic safe values are shown in attached document

CONDITIONS OF CERTIFICATION: NO



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

Update of standards and constructional change of enclosure.

Annex:

[11TH0450_Anhang zu IECEx CoC_3.pdf](#)

Annexe to: IECEx EPS 12.0028 issue No.:3

Applicant: Schischek Explosionsschutz GmbH

Apparatus: Electrical controller Type ExReg-.. with ExPro-C.. Sensors



Description of equipment:

The controller type ExReg is used for the control of processes in hazardous locations of zone 1 or zone 21 together with linear or rotary drives. The input values for pressure (ExReg-P, ExReg-V), humidity and temperature (ExReg-D mit ExPro-C) are measured by internal sensors. The appropriate sensors ExPro-C...for temperature and humidity can be used with different length, filters and connection methods. The intended use of the sensors ExPro is limited for category 2G/D and 3G/D. The internal and external sensors are supplied by intrinsic safe circuits. Also the display and buttons are part of intrinsic safe circuit. External sensors can be connected to the intrinsic safe "ia" outputs of version ExReg-A-.. for use inside zone 0/20, depending that the sensor has a category 1 approval. The supply terminals and terminals for sensor output and external devices are protected by type of protection "increased safety e". The main part of equipment including fuses and temperature fuses is protected by type of protection "encapsulation m". Also the intrinsic safe part is potted for exclusion of gas. Temperature range is from -20°C to +50°C.

Electrical data:

| | |
|--|---|
| Supply of device and drive (Terminal 1,2 and 4,5): | U = 24 V AC/DC \pm 20 %, AC 50....60Hz U _m = 30 V |
| Switch contact: (Terminal 2,3) | U = 24 V AC/DC \pm 20 %, AC 50....60Hz I _{max} = 0,5 A P _{max} = 0,5 W U _m = 30 V |
| Drive analog Set Point: (Terminal 6,7) | I = 4 – 20 mA U _m = 30 V |
| Drive analog value: (Terminal 8,7) | U = 0 – 10 V U _m = 30 V |
| ExReg-P ; ExReg-D ; Ex-Reg-V | |
| Controller Set Point analog input (Terminal 9, 10) | U = 0 – 10 V |
| ExReg-P-A ; ExReg-D-A ; ExReg-V-A | |
| Drive position analog output (Terminal 9, 10) | U = 0 – 10 V |
| Controller value analog output (Terminal 11, 12) | U = 0 – 10 V |
| Controller set point analog input (Terminal 13, 12) | U = 0 – 10 V |



ExReg-P-B ; ExReg-D-B ; ExReg-V-B

BUS A1, B1 (Terminal 10, 11)

$U_m = 7 \text{ V}$

$P_{\text{max_in}} = P_{\text{max_out}} = 410 \text{ mW}$

BUS A2, B2 (Terminal 12, 13)

$U_m = 7 \text{ V}$

$P_{\text{max_in}} = P_{\text{max_out}} = 410 \text{ mW}$

ExReg-A

Sensor value analog input
(Terminal 9, 10)

$U = 0 - 10 \text{ V}$

Controller value analog output
(Terminal 11, 12)

$U = 0 - 10 \text{ V}$

Controller setpoint analog input
(Terminal 13, 12)

$U = 0 - 10 \text{ V}$

Connections in Exi

Output for:

ExReg-P

Digital internal pressure sensor

Type of protection Ex ia IIC

Max. values:

$U_o = 7 \text{ V}$

$I_o = 83 \text{ mA}$

$P_o = 415 \text{ mW}$

For connection of digital pressure sensor
SCPB-Pa-xxx/xxxi2C-F3.3-SCH

ExPro-C, ExReg_D

Digital internal temperature and humidity sensor

Type of protection Ex ia IIC

Max. values:

$U_o = 7 \text{ V}$

$I_o = 125 \text{ mA}$

$P_o = 219 \text{ mW}$

For connection of digital temperature and
humidity sensors by company Sensirion
type SHT1x.

ExReg-A

External sensors in two- or three- wire connection

Type of protection Ex ia/ib IIC

Max. values:

$U_o = 7 \text{ V}$

$I_o = 9 \text{ mA}$

$P_o = 15 \text{ mW}$

Linear characteristic

C_i negligible

L_i negligible