



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 PTB 11.0024X Issue No: 0 Certificate history:
Issue No. 0 (2011-03-30)

Status: **Current** Page 1 of 3

Date of Issue: **2011-03-30**

Applicant: **Schischek GmbH**
Mühlsteig 45, 90579 Langenzenn
Germany

Electrical Apparatus: **ExRun**
Optional accessory:

Type of Protection: **"d", "e", "ia"**

Marking: Ex d e [ia] IIC T6, T5, T4
Ex tD [iaD] A21 IP66 T80°C, T95°C, T130°C

*Approved for issue on behalf of the IECEx
Certification Body:*

Dr. Uwe Klausmeyer

Position:

Head of section "Flameproof Enclosure"

*Signature:
(for printed version)*

Date:

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:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
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 : 2004 Edition:4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2003 Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
IEC 60079-11 : 2006 Edition:5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC 61241-0 : 2004 Edition:1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition:1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"
IEC 61241-11 : 2005 Edition:1	Electrical apparatus for use in the presence of combustible dusts - Part 11: Protection by intrinsic safety 'iD'

*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/PTB/ExTR11.0040/00](#)

Quality Assessment Report:

[DE/BVS/QAR07.0009/03](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The electric, explosion-proof ExRun -..... - .. - .. valve actuator comprises of a flameproof enclosure with actuator shafts that accommodate electromechanical components. The internal elements are temperature controlled. The flameproof enclosure is mounted in a protective housing with additional mechanical components. The gears and mechanical actuators mounted in the protective housing do not form part of this certificate. A terminal box of Increased Safety, which is integrated in the outer housing, provides for connection.

Refer to attached Annex for additional product information.

CONDITIONS OF CERTIFICATION: YES as shown below:

Repair of the flameproof joints must be made in compliance with the structural specifications provided by the manufacturer. Repair in compliance with the values in tables 1 and 2 of IEC/EN 60079-1 is not accepted.

Annex:

[IECEx_Certificate_Attachment.pdf](#)



Description of equipment

The electric, explosion-proof ExRun -..... - .. - .. valve actuator comprises of a flameproof enclosure with actuator shafts that accommodate electromechanical components. The internal elements are temperature controlled. The flameproof enclosure is mounted in a protective housing with additional mechanical components. The gears and mechanical actuators mounted in the protective housing do not form part of this certificate.

A terminal box of Increased Safety, which is integrated in the outer housing, provides for connection.

Electrical data

Nominal voltage U_0/U	up to	300/500 V
Rated voltage	max.	250 V
Conductor size	max.	2.5 mm ²

Rated values are maximum values, the actual electrical values are determined by mounted electrical apparatus. Within these limiting values complying with the appropriate standards the manufacturer specifies the final limiting values dependent on power supply specifications, operating mode, utilisation category, etc. Any additional technical features are specified in the test documents and the operating manual.

Ambient temperature	T6	-40 °C to 40 °C	
	T5	-40 °C to 50 °C	
	T4	-40 °C to 60 °C	
Voltage supply	U	= 24 ... 230	V AC/DC, 50...60 Hz
	U_m	= 253	V

Intrinsically safe circuits

Sensor circuit type of protection: Intrinsic Safety Ex ia IIC

Maximum values:

U_0	=	10.6	V
I_0	=	11	mA
P_0	=	30	mW

Linear characteristic

L_i	negligibly low
C_i	negligibly low

	Ex ia		
	IIC	IIB	IIA
L_0	2 mH	5 mH	10 mH
C_0	830 nF	3.6 μ F	4.5 μ F

The outer reactance accepted as a maximum is shown in the table below:



Special conditions for safe use

Repair of the flameproof joints must be made in compliance with the structural specifications provided by the manufacturer. Repair in compliance with the values in tables 1 and 2 of EN 60079-1 is not accepted.

Additional notes for safe operation:

Any components attached or installed (e.g. terminal compartments, bushings, 'Ex' cable glands, connectors) must be of a technical standard that complies with the specifications on the cover sheet. They must be suited for the operating conditions, and be covered by a separate examination certificate, and a separate examination certificate must have been issued for them. The operating conditions set forth in the relevant component certificates must by all means be complied with.

When the equipment is classified under temperature class T4 or T130 °C, adequate measures must be taken that ensure that temperatures at places where the sealing material is installed will not exceed 100 °C.

The connecting cable must be of a quality that meets the thermal and mechanical requirements under field service conditions.

For in zone 20 or 21 applications, sensors connected to the intrinsically safe sensor circuit must meet the requirements of categories D 1 and D 2, respectively.