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 11.0084X	Issue No: 0	Certificate history: Issue No. 0 (2011-09-14)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2011-09-14**		
Applicant:	**Samson AG** Weismüllerstr. 3 60314 Frankfurt a.M. **Germany**		
Electrical Apparatus:	**Electropneumatic positioner type 3731-*21**		
Optional accessory:			
Type of Protection:	**d, e, tb**		
Marking:	Ex d IIC T6, T5 resp. T4 Gb resp. Ex d e IIC T6, T5 resp. T4 Gb Ex tb IIIC T80 °C Db IP66	reconfirmed by:	

Approved for issue on behalf of the IECEx Certification Body: Martin Thedens / UWE KLAUSMEYER

Position: Head of section "Flameproof enclosures"

Signature:
(for printed version)

Date: 13.05.2016

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 80

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:

IECEx Certificate of Conformity

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Manufacturer:	**Samson AG** Weismüllerstr. 3 60314 Frankfurt a.M. **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 : 2007-10 Edition:5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition:4	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/PTB/ExTR11.0089/00

Quality Assessment Report:

DE/TUN/QAR06.0011/03

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The electropneumatic positioner type 3731-*21 is a single or double acting positioner with communication capability to be mounted at all prevalent lift or pivot drives. The positioner compares the output signal of a control device in the range from 4 to 20 mA with the upstroke of the adjustment valve and controls a pneumatic set pressure as output parameter. The configuration and parameterization of the positioner is effected via the signal line of the 4 – 20 mA signal using HART protocol (version 3731-321). The data transfer is done in the form of an overlaid frequency on the 4 – 20 mA signal lines. The versions 3731-421 and 3731-521 are designed for the connection to field bus systems corresponding to profibus PA according to the FISCO concept resp. the FOUNDATION™ fieldbus specification.

The positioner is designed as a field enclosure device in a metal enclosure of the type of protection Ex"d" or Ex "d e".

Technical data

Supply voltage: 10 ... 35 VDC

Signal circuit: 4 ... 20 mA

Power dissipation: max. 7.5 W

CONDITIONS OF CERTIFICATION: YES as shown below:

See attachment

Annex:

Special conditions for safe use.pdf

Special conditions for safe use

Repairs on flameproof joints may only be performed in accordance with the manufacturer's design specifications. Repair on the basis of the values in tables 1 / 2 of IEC 60079-1 is not permitted.

Additional notes for safe operation:

Connection conditions

1. When the terminal compartment of the electro-pneumatic position controller, type 3731-*21, is designed to Ex-"d" type of protection, the following must be complied with:

- The device shall be connected with suitable cable glands or conduit systems that meet the requirements stipulated in IEC 60079-1, sections 13.1 and 13.2, and for which a separate test certificate has been issued. If the device is connected to conduit systems, the required sealing device shall be provided immediately at the enclosure.
- Cable glands (Pg type glands) and blanking plugs of a simple design must not be used.
- Openings that are not used shall be sealed in compliance with the specifications in IEC 60079-1, section 11.9.
- If connection is made in the potentially explosive area, the connecting cable (unconnected cable end) of the electro-pneumatic position controller, type 3731-*21, shall be connected in an enclosure that meets the requirements of an approved type of protection in accordance with IEC 60079-0, section 1.

2. The connecting cable of the electro-pneumatic position controller, type 3731-*21, shall be fixed and routed so that it will be adequately protected against mechanical damage.
3. If the temperature at the input parts exceeds 70 °C, temperature-resistant connecting cables shall be used.
4. The electro-pneumatic position controller, type 3731-*21, shall be included in the local equipotential bonding system of the potentially explosive area.

These notes and instructions shall accompany each device in an adequate form.

Components attached or installed (terminal compartments, bushings, Ex-type cable glands, connectors) shall be of a technical standard that complies as a minimum with the specifications on the cover sheet, and they shall have a separate examination certificate. The operating conditions specified in the component certificates must be complied with.

Ambient temperature

The field of application of the electro-pneumatic position controller, type 3731-*21, is as follows:

in temperature class T6: to ambient temperatures between -40 °C and +60 °C,
in temperature class T5: to ambient temperatures between -40 °C and +70 °C, and
in temperature class T4: to ambient temperatures between -40 °C and +80 °C.

Operating medium in the pneumatic section

1. The maximum ingoing-air pressure is 6 bar.
2. The equipment operator must ensure that the operating medium does not form an explosive atmosphere, i.e. the gases used must not contain any substances whose presence in the medium may cause an explosive atmosphere (no flammable gases, no oxygen or oxygen-enriched gas).