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 TUR 17.0027X

Issue No: 0

Certificate history:
Issue No. 0 (2019-03-12)

Status: **Current**

Date of Issue: **2019-03-12**

Applicant: **SAMSON AKTIENGESELLSCHAFT**
Weismüllerstraße 3
60314 Frankfurt am Main
Germany

Equipment: **Solenoid valve type 3969**
Optional accessory:

Type of Protection: **Ex ia, Ex tb, Ex ec, Ex nA**

Marking:

Ex ia IIC T4/T6 Gb

Ex ia IIIC T85°C Db

or

Ex tb IIIC T85°C Db

Ex ec (or nA) IIC T4/T6 Gc

Approved for issue on behalf of the IECEx Certification Body: Dipl.-Ing. Klauspeter Graffi

Position: Head of Certification Body

Signature:
(for printed version)

Date: 2019-03-12

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:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany

TÜVRheinland

IECEx Certificate of Conformity

Certificate No: IECEx TUR 17.0027X Issue No: 0

Date of Issue: **2019-03-12** Page 2 of 3

Manufacturer: **SAMSON AKTIENGESELLSCHAFT**
Weismüllerstraße 3
60314 Frankfurt am Main
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 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"
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/TUR/ExTR17.0027/00

Quality Assessment Report:

DE/TUN/QAR06.0011/08

IECEx Certificate of Conformity

Certificate No: IECEx TUR 17.0027X Issue No: 0

Date of Issue: **2019-03-12** Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Solenoid Valve type 3969

Details are shown in the attachment

SPECIFIC CONDITIONS OF USE: YES as shown below:

The solenoid valve has to be included into the equipotential bonding system.

Type 3969-811: Only cables with a suitable temperature range (T_{amax} + 5K) are allowed to be mounted to the device

Type 3969-811: Only cable glands and blind plugs with suitable type of protection and temperature range (T_{amax} + 5K) are allowed to be mounted to the device.

Type 3969-811 if used as ec or nA equipment: The equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60991-1

Type 3969-811 if used as ec or nA equipment: A transient protection shall be provided that is set at a level not exceeding 119V

Annex:

IECEx_TUR_17.0027X_Attachment.pdf

TÜVRheinland®
Precisely Right.

Device: Solenoid valve type 3969
Type: 3969-111 ********** and 3969-811 **********

Manufacturer: SAMSON AKTIENGESELLSCHAFT

Address: Weismüllerstraße 3,
60314 Frankfurt am Main, Germany

Subject and type
Solenoid Valve type 3969

General product information
The Solenoid Valve type 3969 converts binary electrical input signals into pneumatic output signals. The Solenoid Valves are used for controlling pneumatic actuators. It is an electrical apparatus with type of protection Ex ia Gb, ia Db, tb Db and ec (or nA) Gc. If supplied by a suitable associated apparatus, it can be used in hazardous areas of up to zone 1 and zone 21. Otherwise it can be used in hazardous areas of up to zone 2 and zone 21.

Model code:
3969-111 ********** (marked with Ex ia IIC T4/T6 Gb; Ex ia IIIC T85°C Db)
3969-811 ********** (marked with Ex ec (or nA) IIC T4/T6 Gc; Ex tb IIIC T85°C Db)

Where * is not Ex relevant.

Technical data

Electrical data:

For use as an intrinsically safe apparatus:
U_i = 28V
I_i = 115mA
P_i = 1W
C_i, L_i negligible

Otherwise:
U_N = 14.....24V

Environmental data:

For types of protection ec (or nA) Gc and ia Gb:

Gas group	Temperature class	Ambient temperature
IIC	T4	-45 °C ≤ T_a ≤ +80 °C
	T6	-45 °C ≤ T_a ≤ +70 °C

For Type of protection tb Db:

Dust group	Temperature class	Ambient temperature
IIIC	T85°C	-45 °C ≤ T_a ≤ +80 °C

For Type of protection ia Db:

Dust group	Temperature class	Ambient temperature
IIIC	T85°C	-45 °C ≤ T_a ≤ +70 °C