



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	<b>IECEx PTB 08.0036</b>	Page 1 of 5	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 2	<a href="#">Issue 1 (2019-07-03)</a> <a href="#">Issue 0 (2008-08-26)</a>
Date of Issue:	2022-08-23		
Applicant:	<b>SAMSON AG Mess- und Regeltechnik</b> Weismüllerstr. 3 60314 Frankfurt am Main <b>Germany</b>		
Equipment:	<b>Solenoid Valve Type 3967-112...</b>		
Optional accessory:			
Type of Protection:	<b>Intrinsic Safety "i"</b>		
Marking:	Ex ia IIC T6...T4 Gb    and Ex ia IIIC T80 °C Db		

Approved for issue on behalf of the IECEx  
Certification Body:

**Dr.-Ing. Martin Thedens**

Position:

**Head of Department "Explosion Protection in Sensor Technology  
and Instrumentation"**

Signature:  
(for printed version)

Date:  
(for printed version)

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Certificate issued by:

**Physikalisch-Technische Bundesanstalt (PTB)**  
**Bundesallee 100**  
**38116 Braunschweig**  
**Germany**





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Manufacturer: **SAMSON AG Mess- und Regeltechnik**  
Weismüllerstr. 3  
60314 Frankfurt am Main  
**Germany**

Manufacturing  
locations: **SAMSON AG Mess- und  
Regeltechnik**  
Weismüllerstr. 3  
60314 Frankfurt am Main  
**Germany**

**SAMSON REGULATION S.A.S.**  
1 rue Jean Corona  
69120 Vaulx-en-Velin  
**France**

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 equipment 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](#) Explosive atmospheres - Part 0: General requirements  
Edition:6.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

This Certificate **does not** indicate compliance with 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 Reports:

[DE/PTB/ExTR08.0045/00](#)

[DE/PTB/ExTR08.0045/01](#)

Quality Assessment Report:

[DE/TUN/QAR06.0011/11](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The solenoid valve, type 3967-112..., transforms binary electric signals into pneumatic output signals; it is used for controlling pneumatic actuators.

The solenoid valve is electrically controlled with the e/p binary converter coil, type 1079-40... It is a passive two-terminal element that can be integrated into certified intrinsically safe circuits, provided the maximum values for  $U_i$ ,  $I_i$  and  $P_i$  are not exceeded.

It is used in potentially explosive atmospheres.

For the thermal and electrical values reference is made to the annex.

**SPECIFIC CONDITIONS OF USE: NO**



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

Additional manufacturing location.

No technical changes to the product have been done.



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**Additional information:**

1 rue Jean Corona, 69120 Vaulx-en-Velin France

**Annex:**

[Annex IECEx PTB 08.0036-02.pdf](#)



Applicant:

**SAMSON AG Mess- und Regeltechnik**

Weismüllerstraße 3, 60019 Frankfurt, Germany

Electrical Apparatus:

**Solenoid Valve, Type 3967-112...**

Thermal and electrical data

Unlike the other versions, the version with a 6 V nominal signal has a defined maximum intrinsically safe input power  $P_i$ .

Signal circuit.....	Type of protection
(terminals +, -)	Intrinsic Safety
	Ex ia IIC / IIIC

Only for connection to a certified intrinsically safe circuit

Maximum values:

for variant of nominal signal 6 V

$U_i$	=	32	V
$I_i$	=	150	mA
$P_i$	=	250	mW
$L_i$	negligibly low		
$C_i$	negligibly low		

for all other versions (nominal signal 12 V and 24 V)

$U_i$	=	32	V
$I_i$	=	150	mA
$L_i$	negligibly low		
$C_i$	negligibly low		

For the relationship between temperature class and the permissible ambient temperatures for gas group IIC, reference is made to the following table:

Temperature class	Ambient temperatures
T6	-45 °C to +60 °C
T5	-45 °C to +70 °C
T4	-45 °C to +80 °C

The range of the permissible ambient temperatures for dust group IIIC is -45 °C to +60 °C