



# EXPLOSION PROTECTION

## CERTIFICATE OF CONFORMITY

Cert NO.GYJ18.1064

This is to certify that the product

Solenoid valve

manufactured by SAMSON AG Mess, und Regeltechnik

(Address: Weismüllerstr. 3, D-60314 Frankfurt, Germany)

which model is 3967-1 Series

Ex marking

Ex ia IIC T4~T6 Gb

Ex iaD 21 T80

product standard /

drawing number 1045-0021-SWD Rev.2

has been inspected and certified by NEPSI, and that it conforms  
to GB 3836.1-2010, GB 3836.4-2010, GB 12476.1-2013, GB 12476.4-2010

This Approval shall remain in force until 2023.02.05

**Remarks** 1. Conditions for safe use are specified in the attachment to this certificate.  
2. Intrinsic safety parameters specified in the attachment to this certificate.

Director

National Supervision and Inspection Centre for  
Explosion Protection and Safety of Instrumentation

Issued Date 2018.02.06

This Certificate is valid for products compatible with the documents and samples approved by NEPSI.

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# 国家级仪器仪表防爆安全监督检验站

National Supervision and Inspection Centre for  
Explosion Protection and Safety of Instrumentation

(GYJ18.1064)

(Attachment I)

## Attachment I

(Translation)

Solenoid Valve type 3967-1 series, manufactured by SAMSON AG Mess, und Regeltechnik, have been approved by National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI) in accordance with the following standards:

GB3836.1-2010 Explosive atmospheres – Part 1: Equipment – General requirements

GB3836.4-2010 Explosive atmospheres – Part 4: Equipment protection by intrinsic safety “i”

GB12476.1-2013 Electrical apparatus for use in the presence of combustible dust

– Part 1: Equipment – General requirements

GB12476.4-2010 Electrical apparatus for use in the presence of combustible dust

– Part 4: Protection by intrinsic safety “iD”

Ex marking: Ex ia IIC T4~T6 Gb

Ex iaD 21 T80

The certificate number is GYJ18.1064, the IP degree is IP65.

The correlation between the temperature classification and the permissible maximum ambient temperature is shown in the table below:

Temperature class	T6 / T80	T5	T4
Maximum ambient temperature (°C)	-45°C~+60°C	-45°C~+70°C	-45°C~+80°C

## 1. SPECIAL REQUIREMENTS

1.1 Only be connected to the certified associated apparatus, the Solenoid Valve could be used in the explosive atmosphere. The connection should be complied with the requirements of the manual of the associated apparatus and the valve.

1.1.1 The maximum values for connection to a certified associated apparatus are shown in the table below:

Un (DC)	6V	12V	24V
Max. input Voltage Ui (V)	32	32	32
Max. input current Ii (mA)	150	150	150
Max. input power Pi (mW)	250	--	--
Max. internal capacitance Ci (μF)	Negligible		
Max. internal inductance Li (mH)	Negligible		

1.1.2 The criteria for interconnection between the Solenoid Valve and the associated apparatus is as below:

$$U_o \leq U_i, I_o \leq I_i, P_o \leq P_i, C_o \geq C_i + C_c, L_o \geq L_i + L_c.$$

Note:  $C_c$  and  $L_c$  stand for distributed capacitance and distributed inductance of cable.

1.1.3 The cable with shield is suitable for connection, and the shield should be connected to the earth.

1.2 Forbid user to change the configuration to ensure the equipment's explosion protection performance. Whatever should be done only by experts from the manufacturer.

1.3 During installation, operation and maintenance, users must comply with the relevant requirements of the product instruction manual, GB3836.13-2013 "Explosive atmospheres-Part 13: Equipment repair, overhaul and reclamation", GB3836.15-2000 "Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous areas (other than mines)", GB3836.16-2006 "Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)", GB15577-2007 "Safety regulations for dust explosion prevention and protection", GB12476.2-2010 "Electrical apparatus for use in the presence of combustible dust Part 2: Selection and installation" and GB50257-2014 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".

## 2. MANUFACTURER'S RESPONSIBILITY

2.1 The instruction manual should include all the items mentioned above.

2.2 The manufacturer must strictly produce according to the documents approved by NEPSI.

2.3 The following contents are added to the nameplate of the Solenoid Valve:

2.3.1 Identification of NEPSI.

2.3.2 Certificate No. GYJ18.1064.

**National Supervision and Inspection Center  
For Explosion Protection and Safety of Instrumentation  
Feb. 06, 2018**