



T R A N S L A T I O N

(1) **EC TYPE EXAMINATION CERTIFICATE**

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 94/9/EC**

(3) EC Type Examination Certificate Number

PTB 01 ATEX 2178

(4) Equipment: Model 3701-1.. Solenoid Valve

(5) Manufacturer: SAMSON AG Mess- und Regeltechnik

(6) Address: Weismüllerstr. 3, 60314 Frankfurt am Main, Germany

(7) The equipment and any acceptable variation thereof are specified in the schedule to this certificate and the documents referred to therein.

(8) The Physikalisch-Technische Bundesanstalt, notified body number 0102 according to Article 9 of the Council Directive 94/9/ of 23 March 1994, certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres specified in Annex II to the Directive.

The examination and test results are recorded in confidential report.

PTB Ex 01-21377

(9) The essential health and safety requirements are satisfied by compliance with

EN 50014: 1997+A1+A2 EN 50020:1994

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use as specified in the schedule to this certificate.

(11) According to the Directive 94/9/EC this EC Type Examination Certificate relates only to the design and consturciton of the specified equipment. If applicable, further requirements of this Directive apply to the Manufacture and supply of this equipment.



(12) The marking of the equipment shall include the following:



Zertifizierungsstelle Explosionsschutz
By order

Braunschweig, 29 November 2001

(Signature)

(Seal)

Dr. Ing. U. Johannsmeyer
Regierungsdirketor

Statements of Conformity without signature and seal are invalid. This Statement of Conformity may be reproduced only in its entirety without any changes. Extracts or changes shall require the prior approval of the Physikalisch-Technische Bundesanstalt.

(13) **S c h e d u l e**

(14) **EC Type Examination Certificate No. PTB 01 ATEX 2178**

(15) **Description of Equipment**

The model 3701-1.. Solenoid Valve converts electrical binary signals in the input circuit into pneumatic output signals. It is intended for installation in equipment used inside and outside of a hazardous area.

The main component of the solenoid valve is the Model 1079-27 . . e/p Binary Converter coil, which is a passive two-terminal network that may be connected to certified intrinsically safe circuits, provided the permissible maximum values of U_i , I_i , and P_i are not exceeded.

With suitable dropping resistors the Model 1079-27 . . e/p Binary Converter Coil can accommodate nominal voltages of 6V, 12V and 24V.

Electrical data

The correlation between version, temperature classification, permissible ambient temperatures ranges and maximum power dissipation is shown in the table below:

Version U_N		6V	12 V	24 V
Temperatur class	T6	60°C		
	T5	-45°C . . .70°C		
	T4	80°C		
Characteristic linear or regular	P_i	#	##	

The permissible power dissipation P_i in the version is 250mW.

The maximum values for connection to a certified intrinsically safe circuit is shown in the table below:

U_i	25V	27V	28V	30V	32V
I_i	150mA	125mA	115mA	100mA	85mA
P_i	no limitation				

C_i negligible, L_i negligible

(16) Test report: **PTB Ex 01-21377**

(17) **Special conditions for safe use**

Nons

(18) **Special health and safety requirements**

In compliance with the standard specified above.

Zertifizierungsstelle Explosionsschutz
By order

Braunschweig, 29 November 2001

(Signature) (seal)

Dr. Ing. U. Johannsmeyer
Regierungsdirektor

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Physikalisch-Technische Bundesanstalt Bundesallee 100 D-38116 Braunschweig



ADDENDUM No. 1

**in compliance with Directive 94/9/EC Annex III Clause 6
to the EC TYPE EXAMINATION CERTIFICATE PTB 01 ATEX 2178**

Equipment: Model 3701-1.... Solenoid Valve

Marking:  II 2G EEx ia IIC T6

Manufacturer: SAMSON AG Mess- und Regeltechnik

Address: Weismüllerstr. 3
60314 Frankfurt am Main

Description of the additions and modifications

The Model 3701-1 ... Solenoid Valve is permitted to be manufactured in future also in compliance with the certification documents specified in the test report.

The Model 3701-1 Solenoid Valve satisfies the requirements for electrical equipment with protection provided by enclosures in compliance with EN 50281-1-1998. According to this standard the equipment shall be marked in addition as follows.

 II 2 D IP 65 T 80 °C

The electrical data and all the other particulars shall apply unchanged also to this Addendum No. 1.

Applicable standards

EN 50014:1997 + A1+A2 EN 50020:2002 EN 50281-1-1:1998

Test report : PTB Ex 06-25369

Zertifizierungsstelle Explosionsschutz
By order

Braunschweig, 22. February 2006

(Signature)

(Seal)

Dr. Ing. U. Johannsmeyer
Director and Professor

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