



T R A N S L A T I O N

(1) **EC TYPE EXAMINATION CERTIFICATION**

(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 2085

(4) Equipment: Model 3963-1.. Solenoid Valve

(5) Manufacturer: SAMSON AG

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

(7) The equipment and any acceptable variations thereof are specified in the schedule to this certificate.

(8) The Physikalisch-Technische Bundesanstalt, notified body number 0102 according to Article 9 of the Council Directive 94/9/EC 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 01-21061**

(9) The Essential Health and Safety Requirements are satisfied by compliance with

EN 50014: 1997

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 construction 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, 8. August 2001

(Signature)

(Seal)

Dr. Ing. U. Johannsmeyer
Regierungsdirektor

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

(14) **EC TYPE EXAMINATION CERTIFICATE No. PTB 01 ATEX 2085**

(15) **Description of Equipment**

The Model 3963-1.. Solenoid Valve converts electrical binary signals in the input circuit into pneumatic output signals. It is intended for attachment to actuators and for constructing control systems.

It may be installed inside and outside of hazardous areas.

The Model 3963-1.. Solenoid Valve is a passive two-terminal network that may be connected to any certified intrinsically safe circuit, provided the permissible maximum values of U_i , I_i and P_i are not exceeded.

By connection of suitable series dropping resistors the Model 3963-1.. Solenoid Valve can accommodate nominal voltages of 6 V, 12 V and 24 V.

Electrical data

Signal circuit normal signal ... Type of protection: Intrinsic Safety EEx ia IIC

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

Version (UN)	6V	12V	24V
Temperature class T6 T5 T4	60°C -45°C ≤ T _a ≤ 70°C 80°C		
Characteristic linear or rectangular P _i	#	##	
C _i negligible, L _i negligible			

The permissible maximum power dissipation P_i in the 6 V version is 250 mW.

The maximum values for connection to a certified intrinsically safe circuit are 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 01-21061

(17) Special conditions for safe use

None

(18) Special Health and Safety Requirements

In compliance with the standards specified above.

Zertifizierungsstelle Explosionsschutz
By order

Braunschweig, 8 August 2001

(Signature) (seal)

Dr. Ing. U. Johannsmeyer
Regierungsdirektor