



Translation

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**



(3) EC-Type Examination Certificate Number

**TÜV 02 ATEX 1834 X**

(4) Equipment: Positioner type TZID-C120 resp. TZID-C220

(5) Manufacturer: ABB Automation Products GmbH

(6) Address: Schillerstrasse 72  
D-32425 Minden

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH & Co. KG, TÜV CERT-Certification Body, notified body number N° 0032 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system 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 given in Annex II to the Directive.

The examination and test results are recorded in the confidential report N° 02 YEX 164933.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 50 014:1997**

**EN 50 020:1994**

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

(11) This EC-type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment or protective system must include the following:

 **II 2 G EEx ia IIC T6**

TÜV NORD CERT GmbH & Co. KG  
TÜV CERT-Certification Body  
Am TÜV 1  
D-30519 Hannover  
Tel.: 0511 986-1470  
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Hanover, 2002-05-08



**TÜV NORD CERT**

Head of the  
Certification Body

(13)

## SCHEDULE

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 02 ATEX 1834 X**

(15) Description of equipment

The positioner type TZID-C120 resp. TZID-C220 is used for the control resp. closed loop control of pneumatically driven valves. The reference value is transmitted via field bus. A integrated position sensor detects the current position of the valve drive.

An integrated current/pressure transformer (I/P) is used for the control of the pneumatic auxiliary power.

The permissible ambient temperature range in dependence on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range
T4	- 40 °C to + 85 °C
T5	- 40 °C to + 55 °C
T6	- 40 °C to + 40 °C

### Electrical data

Input circuit  
(terminal +11, -12 resp.+, -)

in type of protection „Intrinsic Safety“ EEx ia IIC  
resp. EEx ib IIC

only for the connection to a certified intrinsically safe circuit (e.g. FISCO power supply) with the maximum values according to the following table:

	FISCO power supply ia / ib for group IIB / IIC	FISCO power supply ia / ib for group IIB / IIC	Barrier or power supply ia / ib for group IIB / IIC
Voltage	17.5 V	17.5 V	24 V
Current	380 mA	360 mA	250 mA
Power	5.32 W	2.52 W	1.2 W
Characteristic line	rectangular	trapezoidal	linear

$L_i$  negligibly small  
 $C_i$  negligibly small

Circuit for shutdown function  
(terminal +85 and -86)

in type of protection „Intrinsic Safety“ EEx ia IIC  
resp. EEx ib IIC

only for the connection to certified intrinsically safe circuits with the maximum values of:

$U_i = 30 V$

$C_i = 3.7 nF$   
 $L_i$  negligibly small



Circuit for digital position  
feedback with proximity switches  
resp. Limit2 +41, -42)

maximum values see EG-type examination certificate  
No. PTB 00 ATEX 2049 X

Local communication interface (LKS)  
and programming interface (X5)

for the connection to the programmer resp. PC  
outside of the hazardous area

(16) Test documents are listed in the test report No.: 02 YEX 164933.

(17) Special conditions for safe use

The operation of the local communication interface (LKS) and of the programming interface (X5) is only allowed outside of the hazardous explosive area.

(18) Essential Health and Safety Requirements

no additional ones