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 1830 X

(4) Equipment: Positioner TZID type DOC 900920 resp. type DOC 900929

(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 165344.

(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**
**Fax: 0511 986-2555**

**Hanover, 2002-09-12**

**TÜV NORD CERT**

**Head of the Certification Body**

(13) **SCHEDULE**

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 02 ATEX 1830 X**

(15) Description of equipment

The positioner TZID type DOC 900920 resp. type DOC 900929 is used for the control resp. closed loop control of pneumatically driven valves using an impressed current of 4 to 20 mA.

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

| Temperatureclass | Ambient temperature range |
|---|---|
| T4 | - 40 °C to + 85 °C |
| T5 | - 40 °C to + 50 °C |
| T6 | - 40 °C to + 35 °C |

Electrical data

Signal- and supply circuit (terminal +11 and –12)

in type of protection „Intrinsic Safety" EEx ia IIC only for the connection to a certified intrinsically safe circuits
Maximum values:
$U_i$ = 30 V
$I_i$ = 150 mA
$P_i$ = 1,1 W
$L_i$ = 54 µH
$C_i$ = 7 nF

**Extension typ 1 (limiting values)**

Signal- and supply circuit (terminal +45/+31 and -44/-32 resp. +51 and -52 resp. +41 and -42)

in type of protection „Intrinsic Safety" EEx ia IIC only for the connection to a certified intrinsically safe circuits
Maximum values:
$U_i$ = 25 V
$I_i$ = 203 mA
$P_i$ = 1,5 W
$L_i$ = 54 µH
$C_i$ = 7 nF

**Extension type 2 (position feed back)**

Signal- and supply circuit (terminal +45/+31 and -44/-32)

in type of protection „Intrinsic Safety" EEx ia IIC only for the connection to a certified intrinsically safe circuits
Maximum values:
$U_i$ = 30 V
$I_i$ = 170 mA
$P_i$ = 1,275 W
$L_i$ = 54 µH
$C_i$ = 12 nF

**Extension type 3 (mechanical digital position feed back)**

| | |
|---|---|
| Mechanical digital feed back (terminals Limit1 +51, -52 resp. Limit2 +41, -42) | Maximum values see EC-type examination certificate No. PTB 00 ATEX 2049 X |

(16) Test documents are listed in the test report No.: 02 YEX 165344.

(17) Special conditions for safe use

**Positioner TZID type DOC 900920**

The positioner has to be erected in such a way that at least the degree of protection of IP20 according to IEC 60529 is met.

The connection to the "local communication interface" (LKS) is solely allowed outside of the hazardous explosive area.

**Positioner TZID type DOC 900929**

The positioner has to erected outdoors when operated with combustible gas.

The supplied gas must be kept free of air or oxygen in such a way that no explosive atmosphere emerges.

The exhausted gas must always be led outwards.

The connection to the "local communication interface" (LKS) is solely allowed outside of the hazardous explosive area.

(18) Essential Health and Safety Requirements

no additional ones

Translation

# 1. SUPPLEMENT to

# EC-TYPE EXAMINATION CERTIFICATE No. TÜV 02 ATEX 1830 X

of the company: ABB Automation Products GmbH
Schillerstraße 72
D-32425 Minden

When operated with combustible gases the Positioner TZID type DOC 900929 may be installed outdoors resp. indoors when sufficient ventilation is given (see 17 „Special conditions for safe use").

All other data apply unchanged.

(16) The test documents are listed in the test report N° 04YEX551065.

(17) Special conditions for safe use

When operated with combustible gases the Positioner TZID has to be installed outdoors resp. indoors when sufficient ventilation is given.

The supplied gas has to be kept free of air or oxygen so that it cannot form an explosive atmosphere.

The exhaust gases must always be exhausted outside.

The "Local Interface for Communication" (LKS) must only be used outside of the explosive hazardous area.

(18) Essential Health and Safety Requirements
no additional ones

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**Hanover, 2004-07-05**

**Head of the**
**Certification Body**