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:

Ex II 2 G EEx ia IIC T6

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TÜV CERT-Certification Body
Am TÜV 1
D-30519 Hannover
Tel.: 0511 986-1470
Fax: 0511 986-2555

Hanover, 2002-05-08

TÜV NORD CERT

Head of the Certification Body

**This certificate may only be reproduced without any change, schedule included.
Excerpts or changes shall be allowed by the TÜV NORD CERT GmbH & Co. KG**

(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

Translation

2. SUPPLEMENT

to Certificate No.	**TÜV 02 ATEX 1834 X**
Equipment:	Positioner type TZIDC-120 and TZIDC-220
Manufacturer: Address:	ABB Automation Products GmbH Schillerstraße 72 32425 Minden Germany
Order number:	8000399818
Date of issue:	2012-01-31

Amendments:

In future, the positioner type TZIDC-120 and type TZIDC-220 may be manufactured according to the test documents listed in the test report. The modifications refer to the internal construction, the marking and the "Special conditions for safe use" of the equipment.

Electrical data

Input circuit (terminal +11, –12 resp. +, -)	in type of protection "Intrinsic Safety" Ex ia IIC resp. Ex ib IIC resp. Ex ic IIC only for the connection to a certified FISCO-Power supply resp. a Barrier or Power Supply with a linear characteristic line and following maximum values: U_i = 24 V I_i = 250 mA P_i = 1.2 W
Circuit for Shutdown function (terminal +85 und –86)	in type of protection "Intrinsic Safety" Ex ia IIC resp. Ex ib IIC only for the connection to a certified intrinsic safe circuit 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 (terminal Limit1 +51, -52 resp. Limit2 +41, -42)	maximum values see EG-type examination No. PTB 00 ATEX 2049 X

In future, the marking of the positioner will be:

FISCO-Field device
II 2G Ex ia IIC T6 resp. T4 Gb or II 3G Ex ic IIC T6 resp. T4 Gc

All other data apply unchanged for this supplement.

The equipment incl. of this supplement meets also the requirements of these standards:

EN 60079-0:2009 EN 60079-11:2007 EN 60079-27:2008

(16) The test documents are listed in the test report No. 11 203 095664.

(17) Special conditions for safe use

Variants, which also comply with the type of protection „Flameproof Enclosure" according to a separate certificate, may not be operated in the type of protection intrinsically safe after use as apparatus in the type of protection „Flameproof Enclosure".

All other "Special conditions" will be removed in the future.

(18) Essential Health and Safety Requirements

no additional ones

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the notified body

Schwedt

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Translation

3. SUPPLEMENT

to Certificate No.	**TÜV 02 ATEX 1834 X**
Equipment:	Positioner type TZIDC-120 and TZIDC-220
Manufacturer: Address:	ABB Automation Products GmbH Schillerstraße 72 32425 Minden Germany
Order number:	8000428259
Date of issue:	2013-12-11

Amendments:

In future, the positioner type TZIDC-120 and type TZIDC-220 may be manufactured according to the test documents listed in the test report. The modifications refer to the construction of the PCB. Further the equipment was evaluated according to the newest standards.

The equipment incl. of this supplement meets also the requirements of these standards:

EN 60079-0:2012 **EN 60079-11:2012**

All other data apply unchanged for this supplement.

(16) The test documents are listed in the test report No. 13 203 132694.

(17) Special conditions for safe use

no additional ones

(18) Essential Health and Safety Requirements

no additional ones

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