



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: issue No.:

Status:

Date of Issue: Page 1 of 3

Applicant: **ABB Automation Products GmbH**
Schillerstrasse 72
D-32425 Minden
Germany


Electrical Apparatus: **Pressure Transmitter Serie 2600T Type 265../267../269.. Profibus PA resp. Foundation
Fieldbus (FF)**
Optional accessory:

Type of Protection: **Intrinsic safety, non sparking**

Marking: **Ex ia IIC T6 or T4 Ga/Gb
Ex iaD 20 T50°C or T95°C
Ex nL IIC T6 or T4
Ta = -40°C to +40°C or + 85°C**

Approved for issue on behalf of the IECEx
Certification Body:

Position:

Signature: 
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

ZELM Explosionsschutz GmbH
Siekgraben 56
D-38124 Braunschweig
Germany



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Manufacturer: **ABB Automation Products GmbH**
Schillerstrasse 72
D-32425 Minden
Germany

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-15 : 2005-03 Edition: 3	Electrical apparatus for explosive gas atmospheres Part 15: Construction, test and Marking of Type of Protection "n" electrical apparatus
IEC 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 60079-27 : 2008 Edition: 2.0	Explosive atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO)
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-11 : 2005 Edition: 1	Electrical apparatus for use in the presence of combustible dusts - Part 11: Protection by intrinsic safety 'ID'

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[DE/ZLM/ExTR09.0004/00](#)

Quality Assessment Report:

[DE/TUN/QAR06.0012/01](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Pressure Transmitter Serie 2600T Type 265../267../269.. Profibus PA resp- Foundation Fieldbus (FF) is indented for use for conversion of physical quantities like pressure, differential pressure and temperature into an digital electrical standard signal inside the hazardous area.

The pressure side of the transmitter is prepared for use of mediums which require the EPL Ga. For this reason it is equipped with a partition wall combined with a flameproof joint respective with the level of protection "ia".

Depending on the measurement range and the amount of pressure appropriate capacitive or piezoresistive sensors are used. The operating conditions for service with flammable measuring mixtures – which are non-explosive - and higher pressures are to be taken from the instruction manual and operation manual respectively.

Instead of the points of the model code other letter- or numerical- combinations will be stated, which are describing several variations and versions of the equipment.

CONDITIONS OF CERTIFICATION: YES as shown below:

The pressure side of the transmitter is prepared for use of mediums which require the EPL Ga. The separation is realized by an corrosion-resistant metal diaphragm. It is only permitted to use mediums where sufficient permanence of this diaphragm is guaranteed (consider operating instruction).

The Electrical data according the appropriate marking have to be considered.

Transmitter type 26.A. or 26.G. are equipped with a capacitive sensor (≤ 400 mbar) which not include an flameproof joint. Therefore it is only allowed to mount these types of the transmitter into the partition wall between the area requiring the EPL Ga and the less hazardous area if it is supplied by an intrinsically safe "ia" circuit.

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Maximum permissible ambient temperature range depending on the temperature class are shown in the following table:

Ambient temperature	Temperature class	Surface temperature
-40 °C to +85 °C	T4	95°C
-40 °C to +40 °C	T6	50°C

The maximum allowed upper temperature limit may be further delimited by the input power according to the electrical data given below.

Electrical data

The Electrical Data depends on the kind of protection used of the equipment

**According to the marking Ex ia IIC T6 or T4 Ga/Gb resp. Ex iaD 20 T50°C or T95°C IP6X
The following electrical data are applicable:**

Supply and signal circuit (terminals signal +,-) type of protection Intrinsic Safety, only for connection to certified power supply device according to FISCO - Concept with following maximum values:

$$\begin{aligned} U_i &= 17,5 \text{ V} \\ I_i &= 500 \text{ mA} \\ P_i &= 8,75 \text{ W} \end{aligned}$$

$$\begin{aligned} \text{effective internal capacitance } C_i &= 5 \text{ nF} \\ \text{effective internal inductance } L_i &= 10 \text{ } \mu\text{H} \end{aligned}$$

resp. for connection to supply unit or barrier with linear characteristics maximum values:

$$\begin{aligned} U_i &= 24 \text{ V} \\ I_i &= 250 \text{ mA} \\ P_i &= 1,2 \text{ W} \end{aligned}$$

$$\begin{aligned} \text{effective internal capacitance } C_i &= 5 \text{ nF} \\ \text{effective internal inductance } L_i &= 10 \text{ } \mu\text{H} \end{aligned}$$

Temperature sensor circuit: (supply terminals 12, 14) type of protection Intrinsic Safety Ex ia IIC or Ex ib IIC (signal terminals 11, 13) resp. Ex iaD or ibD maximum values:

$$\begin{aligned} U_o &= 10,6 \text{ V} \\ I_o &= 1,5 \text{ mA} \\ P_o &= 4 \text{ mW} \\ C_o &= 2,3 \text{ } \mu\text{F} \\ L_o &= 1 \text{ H} \end{aligned}$$

Transmitter type 26.A. or 26.G. are equipped with a capacitive sensor (≤ 400 mbar) which not include an flameproof joint. Therefore it is only allowed to mount these types of the transmitter into the partition wall between the area requiring the EPL Ga and the less hazardous area if it is supplied by an intrinsically safe "ia" circuit.

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**According to the marking Ex nL IIC T6 or T4
The following electrical data are applicable:**

Supply and signal circuit (terminals signal +,-) type of protection Limited Energy Ex nL IIC only for connection to certified power supply device according to FNICO - Concept with following maximum values:

$$\begin{aligned}U_i &= 17,5 \text{ V} \\I_i &= 666 \text{ mA} \\P_i &= 11,65 \text{ W}\end{aligned}$$

$$\begin{aligned}\text{effective internal capacitance} &C_i = 5 \text{ nF} \\ \text{effective internal inductance} &L_i = 10 \text{ }\mu\text{H}\end{aligned}$$

Temperature sensor circuit: (supply terminals 12, 14) (signal terminals 11, 13) type of protection Limited Energy Ex nL IIC for connection to passive Energy limited sensors only maximum values:

$$\begin{aligned}U_o &= 10,6 \text{ V} \\I_o &= 1,5 \text{ mA} \\P_o &= 4 \text{ mW} \\C_o &= 2,3 \text{ }\mu\text{F} \\L_o &= 1 \text{ H}\end{aligned}$$