Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) EU-TYPE EXAMINATION CERTIFICATE

(Translation)

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 19 ATEX 2006 **Issue: 0**

(4) Product: Pressure transducer, type 261*. with ordering option EH or EL

(5) Manufacturer: ABB SpA

(6) Address: Via L. Vaccani 4, 22016 Tremezzina (Co), Italy

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential Test Report PTB Ex 19-28206.

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

EN 60079-0:2012 +A11:2013 EN 60079-11:2012 EN 60079-26:2015

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

Ex II 1/2 G Ex ia IIC T6...T1 Ga/Gb or **Ex II 2 G Ex ib IIC T6...T1 Gb** or

Ex II 1/2 D Ex ia IIIC T 95°C Da/Db or **Ex II 2 D Ex ib IIIC T 95°C Db**

ZSEx001e c

Konformitätsbewertungsstelle, Sektor Explosionsschutz Braunschweig, June 26, 2019
On behalf of PTB:

Dr.-Ing. T. Horn
Oberregierungsrat

EU-Type Examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.

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(13) # SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 19 ATEX 2006, Issue: 0**

(15) Description of Product

The pressure transducers of type 261*. with ordering option EH or EL are used for the acquisition of the physical quantities overpressure (type 261G.) or absolute pressure (type 261A.) inside the hazardous area and they convert these quantities into an analog electrical standard signal of 4 ... 20 mA.

As an option, the indicator unit Common HMI-Type A may be installed in the pressure transducers of type 261*. with ordering option EH or EL.

The **pressure transducer, type 261*. with ordering option ..EH.. ..** is intended for the application in potentially explosive gas atmospheres.

For relationship of the permissible ambient temperature range of the pressure transducer, type 261*. with ordering option ..EH.. .. to the temperature class, reference is made to the following table:

Temperature class	T6	T5	T4, T3, T2, T1
Permissible ambient temperature range	-40 °C...+56 °C	-40 °C...+71 °C	-40 °C...+85 °C

The marking for the pressure transducer, type 261*. with ordering option ..EH.. .. reads:

II 1/2 G Ex ia IIC T6...T1 Ga/Gb

or

II 2 G Ex ib IIC T6...T1 Gb

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SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 19 ATEX 2006, Issue: 0

The **pressure transducer, type 261*. with ordering option ..EL.. ..** is intended for the application in hazardous areas due to combustible dusts as well as potentially explosive gas atmospheres.

The permissible ambient temperature range for the pressure transducer, type 261*. with ordering option ..EL.. .. for application in hazardous areas due to combustible dusts is -40 °C up to +85 °C.

For relationship of the permissible ambient temperature range of the pressure transducer, type 261*. with ordering option ..EL.. .. to the temperature class, reference is made to the following table:

Temperature class	T6	T5	T4, T3, T2, T1
Permissible ambient temperature range	-40 °C...+56 °C	-40 °C...+71 °C	-40 °C...+85 °C

The marking for the pressure transducer, type 261*. with ordering option ..EL.. .. reads:

II 1/2 D Ex ia IIIC T 95°C Da/Db

or

II 2 D Ex ib IIIC T 95°C Db

or

II 1/2 G Ex ia IIC T6...T1 Ga/Gb

or

II 2 G Ex ib IIC T6...T1 Gb

The pressure transducer, type 261*. with ordering option EH or EL may be installed into the partition between hazardous areas where normally category-1 equipment is applied and less hazardous locations where normally category-2 equipment is applied.

The application of the pressure transducer, type 261*. with ordering option EH or EL in the partition to a hazardous area requiring category-1 equipment is restricted to normal atmospheric conditions for the explosive gas/air mixture or dust/air mixture in this area (temperature = -20 °C up to +60 °C, pressure = 0.8 bar up to 1.1 bar).

For operating conditions without explosive mixtures, reference is made to manufacturer specifications.

The associated pressure sensors as well as the respective capillary tube couplings may be used according to manufacturer specifications.

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Electrical data

For application as II 1/2 G- or II 1/2 D-equipment:

Supply circuit ..... type of protection Intrinsic Safety Ex ia IIC / IIB or IIIC
(terminals „+" and „-")

for connection to certified intrinsically safe circuits
Maximum input values:
U_i = 30 V
I_i = 130 mA
P_i = 0.8 W

C_i = 10 nF
L_i = 0.5 mH

Display- / service interface ..... type of protection Intrinsic Safety Ex ia IIC / IIB / IIIC
(connection via plug connector) with the following maximum values:

U_o = 6.2 V
I_o = 65.2 mA
P_o = 101 mW
characteristic linear
$C_i \approx 0$
$L_i \approx 0$

Maximum values for simultaneously occurring external reactances (according to ISpark-5.3):

Type of protection	Ex ia	
	IIC	IIB / IIIC
L_o	5 mH	5 mH
C_o	1.4 µF	8.9 µF

For application as II 2 G- or II 2 D-equipment:

Supply circuit ..... type of protection Intrinsic Safety Ex ia IIC / IIB or IIIC
(terminals „+" and „-") or Ex ib IIC / IIB or IIIC
for connection to certified intrinsically safe circuits
Maximum input values:
U_i = 30 V
I_i = 130 mA
P_i = 0.8 W

C_i = 10 nF
L_i = 0.5 mH

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SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 19 ATEX 2006, Issue: 0

Display- / service interface..... type of protection Intrinsic Safety Ex ia IIC / IIB / IIIC
(connection via plug connector) or Ex ib IIC / IIB / IIIC
with the following maximum values:

U_o = 6.2 V
I_o = 65.2 mA
P_o = 101 mW
characteristic linear
$C_i \approx$ 0
$L_i \approx$ 0

Maximum values for simultaneously occurring external reactances (according to ISpark-5.3)

Type of protection	Ex ia / ib	
	IIC	IIB / IIIC
L_o	5 mH	5 mH
C_o	1.4 µF	8.9 µF

(16) Test Report PTB Ex 19-28206

(17) Specific conditions of use

none

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Dr.-Ing. T. Horn
Oberregierungsrat

Braunschweig, June 26, 2019

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