



(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 09 ATEX 2038 X

Issue: 2

(4) Product: Pressure transmitter, type series SPX-T and SPXGEN2

(5) Manufacturer: Dynisco Instruments

(6) Address: 38 Forge Parkway, Franklin, MA 02038, USA

(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 20-20028.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018 EN 60079-11:2012 EN 60079-26:2015 EN 1127-1:2011

(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:

 **II 1 G Ex ia IIC T6/T4 Ga** or  **II 2 G Ex ia IIC T6/T4 Gb**

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, May 25, 2020

Dr.-Ing. F. Lienesch
Direktor und Professor



sheet 1/4

(13)

SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 09 ATEX 2038 X, Issue: 2**

(15) Description of Product

The pressure transmitters of type series SPX-T and SPXGEN2 are used to convert a mechanical quantity (pressure) into a proportional electrical quantity in the field of process control. Both type series are supplied by an intrinsically safe 4...20 mA current loop with superimposed digital data communication in accordance with the HART-protocol. The conditioned measured value is available as an analog 4...20 mA current signal. Type series SPX-T is optionally provided with an additional intrinsically safe 4...20 mA current loop which is used to display temperature, however, without digital data communication, as well as an optionally available secondary resistive temperature detector (RTD). HALL-switches (SPX-T) or pushbuttons (SPXGEN2) enable adjustments of Zero and Span. These are installed inside the enclosure. The transmitters may be operated as category-1- or category-2-equipment according to the specifications listed below.

Category-1-equipment:

For application as category-1-equipment the following marking and ambient temperatures apply:

Marking:  **II 1 G Ex ia IIC T6/T4 Ga**

For relationship between maximum permissible ambient temperatures, maximum permissible medium temperatures and temperature class reference is made to the following table:

temperature class	T6	T4
max. permissible ambient temperature	50 °C	85 °C
max. permissible medium temperature	60 °C	85 °C

The minimum permissible ambient and medium temperature is: -20 °C.

Category-2-equipment:

For application as category-2-equipment the following marking and ambient temperatures apply:

Marking:  **II 2 G Ex ia IIC T6/T4 Gb**

For relationship between maximum permissible ambient temperatures, maximum permissible medium temperatures and temperature class reference is made to the following table:

temperature class	T6	T4
max. permissible ambient temperature	60 °C	85 °C
max. permissible medium temperature	60 °C	85 °C

The minimum permissible ambient and medium temperature is: -20 °C.

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 09 ATEX 2038 X, Issue: 2

Electrical data:

SPX-T and SPXGEN2

Supply and evaluation circuit
(plug connector or open ended cable,
terminals: PWR+/SIG+, PWR-/SIG- ,
RCAL+, RCAL-)

type of protection Intrinsic Safety Ex ia IIC
only for connection to a certified intrinsically safe
circuit

Maximum values:

$$\begin{aligned}U_i &= 30 \text{ V} \\I_i &= 100 \text{ mA} \\P_i &= 750 \text{ mW} \\C_i &= 4.5 \text{ nF} \\L_i &= 40 \text{ }\mu\text{H}\end{aligned}$$

only passive components without internal power
source and without external circuits shall be
connected to the terminals RCAL+/ RCAL-

Sensor circuit

internal, in type of protection Intrinsic Safety

SPX-T

Supply and evaluation circuit
(plug connector or open ended cable,
terminals: PWR+/SIG+, PWR-/SIG- ,
RCAL+, RCAL- ,
RTD-, RTD+, RTD+
2nd PWR+/SIG+, 2nd PWR-/SIG-)

type of protection Intrinsic Safety Ex ia IIC
only for connection to a certified intrinsically safe
circuit

Maximum values per circuit:

$$\begin{aligned}U_i &= 30 \text{ V} \\I_i &= 100 \text{ mA} \\P_i &= 750 \text{ mW} \\C_i &= 4.5 \text{ nF} \\L_i &= 40 \text{ }\mu\text{H}\end{aligned}$$

only passive components without internal power
source and without external circuits shall be
connected to the terminals RCAL+/ RCAL-

Sensor circuit

internal, in type of protection Intrinsic Safety

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 09 ATEX 2038 X, Issue: 2

Changes with respect to previous issues

- Adaption to the current state of standards
- Revision of the type labels (change of the identification number of the notified body responsible for manufacturer surveillance)
- Revision of the operating manual
- Revision of the safety description

(16) Test Report PTB Ex20-20028

(17) Specific conditions of use

1. The housing of the pressure transmitters, type series SPX-T and SPXGEN2 shall be connected reliably to the local equipotential bonding system.
2. Those variants of the pressure transmitters, type series SPX-T and SPXGEN2 which include the material aluminium, shall be installed in such a way that sparking as a result of impact or friction between aluminium and steel is excluded. Impact or friction between aluminium and stainless steel is allowed if the existence of rust particles can be excluded.
3. For application as category-1-equipment the connecting cable shall be equipped with a suitable conductive coating ($R_{\text{surface}} < 10^9 \Omega$) to avoid possible electrostatic charge.

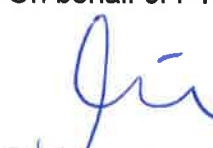
(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

According to Article 41 of Directive 2014/34/EU, EC-type examination certificates which have been issued according to Directive 94/9/EC prior to the date of coming into force of Directive 2014/34/EU (April 20, 2016) may be considered as if they were issued already in compliance with Directive 2014/34/EU. By permission of the European Commission supplements to such EC-type examination certificates and new issues of such certificates may continue to hold the original certificate number issued before April 20, 2016.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, May 25, 2020


Dr.-Ing. F. Lienesch
Direktor und Professor

