1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 19ATEX2260X** Issue: **3**

4 Equipment: **Pressure Transmitter Type PXX100**

5 Applicant: **ABB S.p.A**

6 Address: Via Vaccani 4
Tremezzina (Como)
22016
Italy

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-11:2012 EN 60079-31:2015

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

II 1G
II 1/2D
Ex ia IIC T4 Ga
Ex ia IIIC T135°C Da/Db
Ex ta/tb IIIC T135°C Da/Db
-40°C < Tamb < +75°C or to +85°C (See Description)

Signed:

M Halliwell

Title: Director of Operations

PRODUCTS
RvA C 652

Project Number 80127671

SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE **Sira 19ATEX2260X**
Issue 3

13 **DESCRIPTION OF EQUIPMENT**

The Pressure Transmitter Type PXX100 is designed to be fitted to the wall of a pipe or vessel. There are the following versions:

PXS100 - General market
PXF100 - Food and beverage market
PXD100 - Remote seals
PXP100 - Pulp and paper market

The PGX100 is a gauge pressure version and the PAX100 an absolute pressure version of the equipment.

There is a HMI version of the equipment that has a touch LCD display behind a glass window in the housing cover and a non-HMI version of the equipment that has a 'blind' cover without a window fitted. The LCD display may optionally have backlight.

The pressure transmitter has one of the following different pressure transducers fitted:
Low Pressure 60 mbar or 400 mbar
Medium Pressure 2.5 bar or 10 bar or 40 bar
High Pressure 100 bar or 600 bar

The equipment signal output may be configured for either 4-20mA analogue signal only or HART digital communication and 4–20mA.

External connections to the equipment are made via an entry in the side of the enclosure to internal terminals that are accessed by removal of the housing cover. This entry has a M16 x 1.5 thread. The equipment may optionally be supplied with adapters fitted to this entry that provide alternative M16 x 1.5, M20 x 1.5 or ½" NPT threaded entries to the equipment. The entries are intended to be fitted with an appropriate cable entry device.

The Pressure Transmitters may optionally be supplied fitted with a Model M26 manifold that does not form part of the certification.

The equipment ambient temperature range is either -40°C to 85°C or -40°C to 75°C depending upon the protection concept marked and the process temperature as follows.

Protection concepts	Process temperature	Maximum ambient temperature
Ex ia IIC	≤120°C	85°C
Ex ia IIIC	≤85°C	85°C
	>85°C ≤120°C	75°C
Ex ta/tb IIIC	≤85°C	85°C
	>85°C ≤120°C	75°C

Rated supply voltage for Ex ta/tb IIIC:

Without HMI display 10.5Vdc to 42Vdc
With HMI display 14.5Vdc to 42Vdc

Intrinsic Safety Entity Parameters:

U_i = 30V I_i = 100mA P_i = 1W C_i = 3.7nF L_i = 0

Variation 1 - This variation introduced the following change:

i. To recognises an alternative manufacturer's location:
ABB Engineering (Shanghai) Ltd No 4528, KangXin Highway, PuDong New District, Shanghai, 201319P.R. China

Variation 2 - This variation introduced the following changes:

i. Various modifications to the construction and internal wiring of the Pressure Transmitters.
ii. To permit the modified version of the HMI version of Pressure Transmitter to be used in explosive dust atmospheres.
iii. To permit the Pressure Transmitters to be optionally supplied with adapters fitted to the existing housing entry that provide alternative M16 x 1.5, M20 x 1.5 or ½" NPT threaded entries to the equipment.
iv. Introduction of new PXF100 and PXD100 versions of the Pressure Transmitter.
v. Change to the Pressure Transmitter model code specified for the equipment series from Pressure Transmitter Type PXS100 to Pressure Transmitter Type PXX100 to cover the introduction of the new versions of the equipment.
vi. Recognition that the Pressure Transmitters may be supplied fitted with a Model M26 manifold.
vii. Addition of voltage ratings to the product description on the certificate.

Variation 3 - This variation introduced the following changes

i. Introduction of new PXP100 version of the Pressure Transmitter.
ii. Modifications to the circuit.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	27 March 2020	R70192803A	The release of the prime certificate.
1	03 June 2020	R80041119A	This Issue covers the following changes: • Transfer of certificate Sira 19ATEX2260X from Sira Certification Service to CSA Group Netherlands B.V. • The introduction of Variation 1.
2	12 January 2022	R80083591A	The introduction of Variation 2.
3	05 July 2023	R80127670A	The introduction of Variation 3.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 The SIL2 version of the Pressure Transmitter, which is identified by 'NL' being included model designation, is not capable of passing a 500V r.m.s. dielectric strength test in accordance Clause 10.3 of IEC 60079-11:2011 between its Intrinsically Safe circuits and its enclosure. This shall be considered in any equipment intrinsic safety installation.

15.2 When the Pressure Transmitter is used in a Group III Db Hazardous Area it shall be installed such that it is not subjected to flowing dust.

15.3 For Group III installations the Pressure Transmitter shall be fitted with an appropriately ATEX certified cable entry device. For Group III Ex tb installations this device shall provide ingress protection of at least IP 6X. For Group III Ex ia installations this device shall provide ingress protection of at least IP 5X.

15.4 The HMI version of the Pressure Transducer may either be marked for use in explosive gas atmospheres only, or be marked for use in both explosive gas atmospheres and explosive dust atmospheres. Therefore, when an HMI version of the equipment is to be installed in an explosive dust atmosphere the user / installer shall check the certification marking on the equipment to confirm its suitability for installation in an explosive dust atmosphere.

15.5 When an HMI version of the Pressure Transducer is for use in an explosive dust atmosphere, the installation shall be such that the window of the equipment shall not exposed to a high risk of mechanical danger.

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

Certificate Annexe

Certificate Number: **Sira 19ATEX2260X**

Equipment: **Pressure Transmitter Type PXX100**

Applicant: **ABB S.p.A**

Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
DH3274	1 of 1	0	24 Mar 20	Filter - Assembly
3KXP002100U0009	1 of 1	0	13 Mar 20	Transmitter – Certification / Approval Marking
3KXP002100U0109	1 of 1	0	13 Mar 20	Transducer – General Assembly
3KXP002100U0110	1 of 1	0	13 Mar 20	Transmitter – General Assembly
3KXP002142U0101	1 of 1	0	13 Mar 20	Transducer – Sensor Detail
3KXP002110U0110	1 to 3	0	25 Mar 20	Front End Board – BOM
3KXP002110U0111	1 of 1	0	13 Mar 20	Front End Board – Circuit Schematic
3KXP002110U0112	1 of 1	0	13 Mar 20	Front End Board – Printed Circuit Board
3KXP002220U0110	1 to 5	0	13 Mar 20	Communication Board – BOM
3KXP002220U0210	1 to 5	0	13 Mar 20	Communication Board SIL2 – BOM
3KXP002220U0111	1 of 1	0	13 Mar 20	Communication Board – Circuit Schematic
3KXP002220U0112	1 of 1	0	13 Mar 20	Communication Board - Printed Circuit Board
3KXP002230U0110	1 to 4	0	13 Mar 20	HMI Board - BOM
3KXP002230U0111	1 of 1	0	25 Mar 20	HMI Board - Circuit Schematic
3KXP002230U0112	1 of 1	0	26 Mar 20	HMI Board – Printed Circuit Board

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
3KXP0002100U0009	1 of 2	1	01 Jun 20	Transmitter – Certification / Approval Marking
3KXP0002100U0009	2 of 2	1	01 Jun 20	Transmitter – Certification / Approval Marking

Issue 2

Drawing	Sheets	Rev.	Date (Stamp)	Title
2-1398	1 of 1	3	17 Dec 21	M16x1.5 / M20x1.5 adapter - Detail
284877	1 of 1	1	17 Dec 21	½" NPT adapter - Detail
2205483	2 of 2	C	17 Dec 21	Flat cable modified - Detail
DH3274	1 of 1	1	17 Dec 21	Filter - Assembly
3KXP002100U0009	1 to 2	2	20 Dec 21	Transmitter PXX100 Series – Certification / Approval Marking
3KXP002100U0110	1 of 1	1	22 Dec 21	PGS/PAS100 Transmitter – General Assembly
3KXP002929U0109	1 of 1	0	22 Dec 21	PGF/PAF100 Transmitter – General Assembly
3KXP002929U0209	1 to 2	0	22 Dec 21	PGD/PAD100 Transmitter – General Assembly
3KXP002230U0110	1 to 4	1	22 Dec 21	Front End Board - BOM

Issue 3

Drawing	Sheets	Rev.	Date (Stamp)	Title
3KXP000045G0009	1 of 1	-	26 Jun 23	PXP100 Process Connections
3KXP002100U0009	1 to 2	3	26 Jun 23	PXX100 Series PXX Plates
3KXP002220U0110	1 to 6	1	26 Jun 23	Communication Board - BOM
3KXP002220U0111	1 of 1	1	26 Jun 23	LTPT – Communication Board HART
3KXP002220U0112	1 of 1	1	26 Jun 23	LTPT – Communication Board HART PCB
3KXP002220U0210	1 to 5	1	26 Jun 23	Communication Board SIL2 - BOM
3KXP002929U0309	1 of 1	-	26 Jun 23	PGP/PAP100 Transmitter Assembly