



1 EU-TYPE-EXAMINATION CERTIFICATE

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

3 Certificate Number: **Sira 13ATEX1013X** Issue: **4**

4 Equipment: Pressure Transmitters, models; IAPxxS – a bb c d ED – f (Absolute

Pressure Transmitter), IGPxxS - a bb c d ED - f (Gauge Pressure Transmitter) and IDPxxS - a bb c d e ED - gg (Differential Pressure

Transmitter)

5 Applicant: Schneider Electric Systems USA Inc.

6 Address: 38 Neponset Avenue, 02035 Foxboro, Massachusetts, USA

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

Sira Certification Service, notified body number 0518 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:

IEC 60079-0:2017 Ed. 7 EN 60079-1:2014 EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

- 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 2GD

Ex db IIC T6 Gb

Ex tb IIIC T85°C Db

Ta = -40°C to +75°C

Ta = -50°C to +75°C on models with extended temperature range, marked as 'J – Low temperature Operative Limit' under the 'Optional Selections' field of the product code.

Project Number 70160569

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Deputy Certification Manager

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13 **DESCRIPTION OF EQUIPMENT**

The model IAPxxS, IGPxxS, IDPxxS, IAPxxS BiPlanar and IGPxxS BiPlanar transmitters are used to measure pressures in process control applications. Supply voltage to the transmitters is 42 V dc maximum with a nominal analogue output signal current of 4 mA to 20 mA, or a digital signal that corresponds to the measured pressure.

The transmitter housing is divided into two compartments, electronics and field wiring that are separated by a terminal board installed in the field wiring compartment. The terminal board is not intended to provide isolation between the field wiring and electronics compartments.

The transmitter housing is manufactured in either cast aluminium or stainless steel materials. The housing is identical for all transmitters and utilises threaded, blank covers to close both the electronics and field wiring compartments. The threaded covers are secured against rotation by an anti-rotation screw. Alternatively, the electronics compartment can be fitted with an extended threaded cover that includes a polished, lime glass window to allow an electronic display to be viewed. The field wiring section of the enclosure incorporates two, threaded, cable entry holes to allow supply connections. These are threaded either M20 x 1.5 or $\frac{1}{2}$ " NPT. The electronics section contains a threaded opening for the installation of a process pressure sensor. $\frac{1}{2}$ " in NPT. The electronics section contains a threaded covers and the housing, between the housing and the pressure sensor and between the glass window and the threaded cover for ingress protection.

The process pressure sensor screws into the threaded entry position provided in the base of the electronics enclosure, and is secured from rotation by an anti-rotation screw. The process pressure sensors are of a welded construction in various metals to meet the requirements of the intended application. The 15,000 psi and 30,000 psi gauge pressure sensors measure the deflection in the metal housing caused by the pressure of the process fluid, all other models include a diaphragm and a special plug incorporating a cylindrical flamepath. In the case of the gauge pressure sensors (excluding 15,000 psi and 30,000 psi models) the rear of the sensor is vented to atmosphere by means of a special plug incorporating a cylindrical flamepath. The stainless steel threaded neck portion of the pressure sensor is provided for connection to the transmitter housing.

The following is the model code identification:

Variation 1 - This variation introduced the following changes:

i. The addition of the IDP10S Differential Pressure Transmitters with the following model code identification.

IDP10S-*a***b-*

where:

I - indicates the I/A Series pressure transmitters

DP - indicates Gauge Pressure

10 - indicates the sensor type

a - sensor structure codes

b - AD (ATEX, flameproof)

* - indicates any characters for options not affecting the type of protection

The IDP10S differs from the IGP10S and IAP10S sensors by having an additional cylindrical flamepath in the sensor body and by having the cell body welded to the neck.

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ii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the document previously listed in section 9, EN - 60079-31:2009, was replaced by IEC 60079-31:2013 Ed 2.

Variation 2 - This variation introduced the following changes:

- i. The introduction of ½" NPT and M20 process connectors, and changes to the sensor structure code were recognised as follows:
 - Codes 50 and 51 have been removed.
 - Codes 91, 92, 93, 94, 95, F2, F3, F4, F5, F6 and F7 have been introduced.
- ii. Removal of the Chinese and German manufacturing sites from drawing 10137FC.
- iii. Minor drawing changes including, clarification of drawing revisions, change of company logo and the addition of the WEEE directive logo.
- iv. A change of Applicant address from, 33 Commercial Street, Foxboro, Massachusetts 02035, USA to 38 Neponset Avenue, 02035 Foxboro, MA, USA was recognised.

Variation 3 - This variation introduced the following changes:

The addition of the IGP20S Gauge Pressure Transmitters with the following model code identification.
 IGP20S-*a***b-*

where:

I - indicates the I/A Series pressure transmitters

GP - indicates Gauge Pressure

20 - indicates the sensor type

- a sensor structure codes
- b AD (ATEX, flameproof)
- * indicates any characters for options not affecting the type of protection
- ii. The addition of Foundation Fieldbus (FF) versions of the IAP10S, IGP10S and IDP10S models.
- iii. The change of the applicant's name from Invensys Systems Inc. to Schneider Electric Systems USA Inc.
- iv. Replacement of the previously listed dust standard IEC 60079-31:2013 Ed 2 with EN 60079-31:2014.

Variation 4 - This variation introduced the following changes:

- Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the standards previously listed, EN 60079-0:2012 and EN 60079-1:2007 were replaced by IEC 60079-0:2017 Ed 7 and EN 60079-1:2014. The product marking changed as a result of this assessment.
- ii. The introduction of 'Option J' under 'Optional Sections' of the product code, which allows for an increased ambient temperature range of -50°C to +75°C.
- iii. Alternative colours for the equipment were permitted.
- iv. The IDP10S, IGP10S and IAP10S model code structure was expanded to include models IDP05S, IDP10S, IDP50S, IGP05S, IGP10S, IGP50S, IAP05S, IAP10S and IAP50S.
- v. Introduction of high pressure gauge sensors (15,000 psi and 30,000 psi).
- vi. Introduction of Voltage Output Module (-V) electronics version.
- vii. The IGP20S was renamed to IGPxxS BiPlanar.
- viii. Introduction of the IAPxxS BiPlanar.
- ix. The product description was updated to harmonise certificates IECEx SIR 13.0033X and Sira 13ATEX1013X; and include the latest product information. All information pertinent to existing units in the field was retained.
- x. General Assembly Drawing 10137ED was replaced by Drawing 10125VA.
- xi. Removal of model code structure drawings 10137FF (HART) and 10128QE (Foundation Fieldbus).

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- xii. Introduction of model code structure and label drawing 10125SS HART; model code structure for IDP05S, IDP10S, IDP50S, IGP05S, IGP10S, IAP05S, IAP10S and IAP50S.
- xiii. Introduction of model code structure drawing 10125SN Foundation Fieldbus; model code structure for IDP10S, IDP50S, IGP10S, IGP50S, IAP10S and IAP50S.
- xiv. Introduction of model code structure drawing 10125SR Voltage Output; model code structure for IDP05S, IGP05S and IAP05S.
- xv. Introduction of label drawings D0202FB (HART), D0202FR (Foundation Fieldbus) and D0202GE (Voltage Output).
- xvi. The product name was changed from 'I/A Series Pressure S Series Transmitters' to 'Pressure Transmitters'.
- xvii. As a result of the changes made in this variation, the model code structure was updated as follows:

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IAPxxS – a bb c d ee - f (Absolute Pressure Transmitter)
IGPxxS – a bb c d ee - f (Gauge Pressure Transmitter)
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xx - Tier

05S = Value pressure transmitter

10S = Advanced pressure transmitter

50S = Premium pressure transmitter

a - Electronics Versions & Output Signals

T = HART® and 4 to 20 mA with SIL2

F = Foundation Fieldbus

V = Voltage Output

- bb Structure Code (Process Sensor Material, Diaphragm Material, Fill Fluid, External Connection type, Internal connection type)
- c Range/Span Limits
- d Conduit Connections & Housing Materials
- ee Electrical Safety (AD, ATEX flameproof)
- f Optional Selections

IDPxxS - a bb c d e ff - gg (Differential Pressure Transmitter)

xx - Tier

05S = Value pressure transmitter

10S = Advanced pressure transmitter

50S = Premium pressure transmitter

a - Electronics Versions & Output Signals

T = HART® and 4 to 20 mA with SIL2

F = Foundation Fieldbus

V = Voltage Output

- bb Structure Code (Max Static Pressure, Process Cover Material, Diaphragm Material, Fill Fluid)
- c Range/Span Limits
- d Process connector
- e Conduit Connections & Housing Materials
- ff Electrical Safety (AD, ATEX flameproof)
- gg Optional Selections

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14 **DESCRIPTIVE DOCUMENTS**

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment	
0	22 May 2013	R29386C	The release of the prime certificate.	
1	12 September 2014	R70004727A	The introduction of Variation 1.	
2	20 May 2016	R70066306A	This Issue covers the following changes:	
			EC Type-Examination Certificate in accordance with	
			94/9/EC updated to EU Type-Examination Certificate	
			in accordance with Directive 2014/34/EU. (In	
			accordance with Article 41 of Directive 2014/34/EU, EC Type-	
			Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April	
			2016) may be referenced as if they were issued in accordance	
			with Directive 2014/34/EU. Variations to such EC Type-	
			Examination Certificates may continue to bear the original	
			certificate number issued prior to 20 April 2016.)	
			The introduction of Variation 2.	
3	23 August 2017	R70124925A	The introduction of Variation 3.	
4	02 August 2018	R70160569A	The introduction of Variation 4.	

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

15.1 The following has a maximum constructional gap (ic) and joint width (L) other than the relevant maximum/minimum required by table 2 of EN 60079-1 and is detailed below:

Flamepath	Joint Width (L)/(Max Gap) (ic) (mm)
Transducer/Plug low	≥14.5/(0.04)

15.2 For models featuring a non-metallic paint coating, the user shall ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.

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 Sira 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.
- 17.3 Each sensor shall be subjected to a routine overpressure test of a minimum of 26.26 barg applied from the non-process side for at least 10 s, as required by clause 16 of IEC 60079-1. There shall be no permanent deformation or damage to the sensor cover.

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Certificate Annexe

Certificate Number: Sira 13ATEX1013X



bb c d ED – f (Absolute Pressure Transmitter), IGPxxS – a bb c d ED – f (Gauge Pressure Transmitter) and IDPxxS a bb c d e ED – gg (Differential Pressure

Transmitter)

Applicant: Schneider Electric Systems USA Inc.

Issue 0

Drawing No.	Sheets	Rev	Date (Sira stamp)	Title
10137ED	1 to 10	Α	14 May 13	General assembly
10137FC	1 to 6	Α	30 Apr 13	Marking

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
10137ED	Sheet 1 of 10	В	08 Sep 14	General Assembly
10137ED	Sheet 3 of 10	В	08 Sep 14	General Assembly
10137ED	Sheet 7 of 10	В	08 Sep 14	General Assembly

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
10137FC	1 to 6	С	21 Apr 16	Marking
10137ED	1 to 10	D	13 Apr 16	General assembly

Issue 3

	Drawing	Sheets	Rev.	Date (Sira stamp)	Description
Ī	10137ED	1 to 10	Е	26 Jul 17	General Assembly
	10128QC	1 to 7	Α	26 Jul 17	Marking

Issue 4

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
10125VA	1 to 15	Α	25 Jul 18	General Assembly
10125SS	1 to 26	Α	25 Jul 18	Model Code Structure (HART)
10125SN	1 to 26	Α	25 Jul 18	Model Code Structure (Foundation Fieldbus)
10125SR	1 to 17	Α	25 Jul 18	Model Code Structure (Voltage Output)
D0202FB	1 of 1	Α	31 Jul 18	Label Drawing (HART)
D0202FR	1 of 1	Α	31 Jul 18	Label Drawing (Foundation Fieldbus)
D0202GE	1 of 1	Α	25 Jul 18	Label Drawing (Voltage Output)

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