



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 06ATEX2055X** Issue: **3**

4 Equipment: **Intelligent Automation (IA) Series Pressure Transmitter**

5 Applicant: **Invensys Systems Inc.**

6 Address:

Invensys Systems Inc	Shanghai Foxboro Company Ltd	Foxboro Eckardt GmbH
33 Commercial Street	161 Cao Bao Road	Pragstrasse 83
Foxboro	Shanghai	D-70376 Stuttgart
MA 02035	200233-1	Germany
USA	China	

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

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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 50014: 1997 (A1 + A2) EN 50020: 2002 EN 50281-1-1: 1998 EN 50284: 1999

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC 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 1 G D
EEx ia IIC T4 (Ta = -40°C to + 80°C)

Project Number N/A
C. Index 12

C Ellaby
Deputy Certification Manager

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SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

The IA Series Pressure Transmitter is a pressure measurement instrument using a silicon strain gauge assembly (Neck Board). The unit is connected using a two way terminal block and the measurement signal is transmitted to remote receivers over the same two wires that supply power to the transmitter electronics. Externally it comprises an aluminum enclosure with an optional display window. The enclosure contains a three board PCB stack, pressure sensor assembly and terminal board. The PCB stack is formed from the Display Board, encapsulated MAU Board, and Sensor Interface/Processor Board. There are two additional assemblies, the terminal board and the Neck Board. The Neck Board and the MAU board are fully encapsulated. The equipment uses Hart protocol for communications.

The terminal block has the following input parameters: $U_i = 30\text{ V}$
 $I_i = 110\text{ mA}$
 $P_i = 0.8\text{ W}$
 $C_i = 2.4\text{ nF}$
 $L_i = 1.4\text{ }\mu\text{H}$

The following are the model code identifications: IDPaa- b*****c*****
IGPaa- b*****c*****
IAPaa- b*****c*****

Where: I - indicates the Intelligent Automation series
DP - indicates differential pressure
GP - indicates gauge pressure
AP - indicates absolute pressure
aa - indicates the valid sensor types are 10, 20, 25, 50
b - indicates communications protocol; T = Hart
c - indicates the type of certification i.e. E = ATEX intrinsic safety, N = ATEX type nL, T = IECEx intrinsic safety and U = IECEx nL
* - indicates any characters for options not affecting the type of protection

Variation 1 - This variation introduced the following changes:

- i. The modification of internal part numbers and notes to incorporate alternative firmware to provide functional safety SIL 2.
- ii. The addition of FM and CSA marking details.
- iii. The modification of the format of the circuit diagram of the Hart uP/SI Board.



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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 No.	Comment
0	3 March 2006	R52A14767B	The release of the prime certificate.
1	9 August 2006	R52A14624B	Re-issued 9 August 2006 to permit report number R52A14624B to replace report number R52A14767B.
2	23 May 2008	R52L18366A	This Issue covers the following changes: <ul style="list-style-type: none">All previously issued certification was rationalised into a single certificate, Issue 2, Issues 0 to 1 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format.The introduction of Variation 1.
3	22 February 2013	N/A	A typographical error in the report number associated with Issue 1 was corrected.

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

- 15.1 As aluminium is used at the accessible surface of this equipment, in the event of rare incidents, ignition sources due to impact and friction sparks could occur. This shall be considered when the IA series Pressure Transmitter is being installed in locations that specifically require group II, zone 0 applications.

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 CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

Certificate Annexe

Certificate Number: Sira 06ATEX2055X
 Equipment: Intelligent Automation (IA) Series Pressure Transmitter
 Applicant: Invensys Systems Inc.



Issues 0 and 1

Number	Sheet	Rev.	Date	Description
10122RX	1 of 9	H	09 Sep 05	Functional Assembly Procedure For I/A Series Pressure Transmitters
10122RX	2 of 9	D	27 Nov 02	Functional Assembly Procedure For I/A Series Pressure Transmitters
10122RX	3 of 9	E	03 Sep 03	Functional Assembly Procedure For I/A Series Pressure Transmitters
10122RX	4 of 9	H	09 Sep 05	Functional Assembly Procedure For I/A Series Pressure Transmitters
10122RX	5 of 9	F	15 Feb 05	Functional Assembly Procedure For I/A Series Pressure Transmitters
10122RX	6 of 9	H	09 Sep 05	Functional Assembly Procedure For I/A Series Pressure Transmitters
10122RX	7 of 9	H	09 Sep 05	Functional Assembly Procedure For I/A Series Pressure Transmitters
10122RX	8 of 9	H	09 Sep 05	Functional Assembly Procedure For I/A Series Pressure Transmitters
10122RX	9 of 9	H	09 Sep 05	Functional Assembly Procedure For I/A Series Pressure Transmitters
10120RC	1 of 1	C	05 Apr 05	Safety Concept HART Ver. 4 Block Diagram
D0162VT	1 of 1	J	26 Jan 06	HART, I.T. Electronics Module (Uncharacterized)
10120RE	1 to 4	E	13 Jan 06	HART PWB Assembly Signal/Supply Info. Drawing
10121EL	1 of 16	U	28 Feb 06	IASPT Structure Agency Information Drawing
10121EL	2 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing
10121EL	3 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing
10121EL	4 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing
10121EL	5 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing
10121EL	6 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing
10121EL	7 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing
10121EL	8 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing
10121EL	9 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing
10121EL	10 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing
10121EL	11 of 16	U	28 Feb 06	IASPT Structure Agency Information Drawing
10121EL	12 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing
10121EL	13 of 16	K	24 Jul 01	IASPT Structure Agency Information Drawing
10121EL	14 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing
10121EL	15 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing
10121EL	16 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing
D0162LQ	1 of 1	G	17 Mar 99	I.T. Display Assembly
D0149XB	1 to 3	D	28 Mar 01	PWA Digital Indicator circuit for IASPT
10111CK	1 to 5	D	16 Mar 01	Display Board for IDP XMTR
D0149YB	1 to 2	H	22 Oct 04	PWA Single Range Terminal Block
D0149YA	1 of 1	G	16 Mar 01	PWB Single Range Terminal Block
10111DR	1 to 1	H	09 Sep 05	Schematic Single Range Terminal Block
D0149WS	1 of 1	J	27 Nov 02	Neck Board Assy
D0149GM	1 to 2	D	03 Sep 03	PWA IASPT Neck Board
10111CQ4	1 to 2	L	9 Sep 05	Schematic IASPT Neck Board
D0149GH	1 to 3	G	15 Feb 05	PWA Single Range Up/SI IDP XMTR Board
10111JW	1 to 5	G	09 Sep 05	HART up/SI board Standard
D0149GJ	1 to 4	K	09 Sep 05	PWA HART MAU Board (Power Supply)
D0149GK	1 of 1	H	09 Sep 05	PWB HART MAU Board (Power Supply)
10111JY	1 of 1	H	09 Sep 05	Panelized Informational Drawing HART MAU
10111JX	1 to 7	K	05 Apr 05	Schematic HART Standard MAU (Power Supply) for IASPT
X0180HG	1 to 2	A	26 Jan 06	Potting Compound
P0177JD-	1 to 5	D	13 Jan 06	Connector/Cable Assy.

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Certificate Annexe

Certificate Number: Sira 06ATEX2055X
 Equipment: Intelligent Automation (IA) Series Pressure Transmitter
 Applicant: Invensys Systems Inc.



Number	Sheet	Rev.	Date	Description
DO162AK	1 of 1	C	28 Feb 06	Label, Blank
D0187AT	1 of 1	A	11 Feb 05	ATEX (Sira) Data Plate

FoxComp Part Numbers

Number	Sheets	Rev.	Date (Sira stamp)	Description
P0202DH	1 of 1	-	26 Mar 03	Diode, 3 Watt Zener Series Surface mount
P0188SL	1 of 1	-	26 Mar 03	Resistor Surface mount Chip 1% (1206)
P0185AD	1 of 1	-	26 Mar 03	Resistor Thick film SMT 1% (0603)
P0153JV	1 of 1	-	26 Mar 03	Diode, Schottky rectifier 1A 60V SMT
P0203BN	1 of 1	-	26 Mar 03	Resistor Thick film SMT 1% (1210)
P0204BZ	1 of 1	-	26 Mar 03	Resistor SMT CHIP 1W 2%
P0204EL	1 of 1	-	26 Mar 03	Resistor SMT CHIP 1W 2%
P0153HS	1 of 1	-	26 Mar 03	Diode dual series configuration low leakage 200V SMT
P0153EQ	1 of 1	-	26 Mar 03	Diode, Transient Voltage Suppressor
D0152FU	1 of 1	-	26 Mar 03	Varistor Metal Oxide Surface Mount
BF161ZA	1 of 1	-	26 Mar 03	Inductor SMT Suppression Filter
N0143XZ	1 of 1	-	26 Mar 03	Resistor W.W. Precision
PO153BX	1 of 1	-	26 Mar 03	1N4004 General Purpose Diode

Issue 2

Number	Sheets	Rev.	Date (Sira stamp)	Description
10121EL	1 of 16	V	23 May 08	IASPT Structure Agency Information Drawing
10121EL	2 of 16	V	23 May 08	IASPT Structure Agency Information Drawing
10121EL	3 of 16	T	23 May 08	IASPT Structure Agency Information Drawing
10121EL	4 of 16	V	23 May 08	IASPT Structure Agency Information Drawing
10121EL	5 of 16	V	23 May 08	IASPT Structure Agency Information Drawing
10121EL	6 of 16	N	23 May 08	IASPT Structure Agency Information Drawing
10121EL	7 of 16	U	23 May 08	IASPT Structure Agency Information Drawing
10121EL	8 of 16	U	23 May 08	IASPT Structure Agency Information Drawing
10121EL	9 of 16	U	23 May 08	IASPT Structure Agency Information Drawing
10121EL	10 of 16	U	23 May 08	IASPT Structure Agency Information Drawing
10121EL	11 of 16	U	23 May 08	IASPT Structure Agency Information Drawing
10121EL	12 of 16	N	23 May 08	IASPT Structure Agency Information Drawing
10121EL	13 of 16	K	23 May 08	IASPT Structure Agency Information Drawing
10121EL	14 of 16	N	23 May 08	IASPT Structure Agency Information Drawing
10121EL	15 of 16	N	23 May 08	IASPT Structure Agency Information Drawing
10121EL	16 of 16	N	23 May 08	IASPT Structure Agency Information Drawing
10128GL	1 to 7	A	23 May 08	HART Standard MAU for IASPT (SIL2)
10128GK	1 to 5	A	23 May 08	HART UP/SI BOARD STANDARD (SIL2)
D0187FT	1 of 1	A	23 May 08	HART, Electronics Module (UN-CHAR) SIL2
D0149KR	1 of 1	A	23 May 08	Surface Mount Technology PWB HART Mau Board (SIL2) - (Power Supply)
D0149KQ	1 to 4	A	23 May 08	Surface Mount Technology PWA HART MAU Board (SIL2) - (Power Supply)
D0149KN	1 to 4	A	23 May 08	Surface Mount Technology PWA UP/SI IDP HART Board (SIL2)
10128GN	1 of 1	A	23 May 08	Panelized Biscuit Drawing Information Drawing

Issue 3 – no new drawings introduced.

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