



1 **TYPE EXAMINATION CERTIFICATE**

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

3 Type Examination Certificate Number: Sira 06ATEX4056X

4 Equipment: Intelligent Automation (IA) Series Pressure Transmitter

5 Applicant: Invensys Systems Inc.

6 Addresses: 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 are specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service certifies that this equipment has been found to comply with the Essential Health and Safety Requirements that relate to the design of Category 3 equipment, which is intended for use in potentially explosive atmospheres. These Essential Health and Safety Requirements are given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential report number R52B14624D.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN 60079-15:2004

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 TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured.

12 The marking of the equipment shall include the following:



II 3G D
EEx nL IIC T4 (Ta = -40°C to + 80°C)

Project Number 52B14264
Date 9 August 2006
C. Index: 12

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C Ellaby
Certification Officer

Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

Tel: +44 (0) 1244 670900
Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com



SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

The Intelligent Automation (IA) Series Pressure Transmitter is a pressure measurement instrument that uses 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:
 $U_i = 42\text{ V}$
 $I_i = 22\text{ mA}$
 $C_i = 2.4\text{ nF}$
 $L_i = 1.4\text{ }\mu\text{H}$

The following is the model code identification:
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
 - * - indicates any characters for options not affecting the type of protection
 - c - indicates the type of certification: E = ATEX intrinsic safety, N = ATEX type nL, T = IECEx intrinsic safety, U = IECEx nL

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

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

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Number	Sheet	Rev.	Date	Description
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
10111CQ	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.
DO162AK	1 of 1	C	28 Feb 06	Label, Blank
D0187AT	1 of 1	A	09 May 06	ATEX (Sira) Data Plate

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14.2 FoxComp Part Numbers

Number	1 of 1	Rev.	Date	Description
			(Sira stamp)	
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		-	26 Mar 03	1N4004 General Purpose Diode

14.3 Report number R52B14624D

15 SPECIAL CONDITIONS FOR SAFE USE

- 15.1 Suitably approved cable glands and/or closing devices shall be used.
- 15.2 The permitted working temperature of field wiring shall be at least the maximum ambient of the application increased by 2 K.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in report number R52B14624D.

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 Type Examination Certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 All complete manufactured units shall be subjected to, and pass, a routine 500 V rms. voltage test between the incoming supply terminals and the protective earth point

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