



1 **TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 06ATEX4019X** Issue: **1**

4 Equipment: **IA Series Pressure Transmitter (Fieldbus)**

5 Applicant: **Invensys Systems Inc.**

6 Address: 33 Commercial Street  
Foxboro  
MA 02035  
USA

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 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 of this certificate, has been assessed by reference to:

EN 60079-15: 2003

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

Project Number 52A16583  
C. Index 12

C Ellaby  
Certification Officer

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**SCHEDULE**

**TYPE EXAMINATION CERTIFICATE**

**Sira 06ATEX4019X  
Issue 1**

**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 terminal block has the following FNICO compliant input parameters:  $U_i = 17.5\text{ V}$   
 $C_i = 2.1\text{ nF}$   
 $L_i = 2\text{ }\mu\text{H}$

The following is the model code identification: IDPaa-b\*\*\*\*\*N\*\*\*\*\*  
IGPaa-b\*\*\*\*\*N\*\*\*\*\*  
IAPaa-b\*\*\*\*\*N\*\*\*\*\*

Where: I – indicates the Intelligent Automation series  
DP – indicates differential pressure  
GP – indicates gauge pressure  
AP – indicates absolute pressure  
aa – indicates the valid sensor type are 10, 20, 25, 50  
b - indicates communications protocol, F = Fieldbus  
N - indicates certificates type ATEX (nL)  
\* indicates any characters for options not affecting the type of protection

**Variation 1**

This variation introduced the following changes:

- i. The model code identification was clarified.
- ii. The use of alternative parts to replace discontinued components was permitted.
- iii. Drawings were updated to recognise the latest versions of the software.
- iv. Two zero ohm resistors and one unpopulated resistor were added, these change the gain stage circuit from 10 times to 3.3 times.



## SCHEDULE

### TYPE EXAMINATION CERTIFICATE

Sira 06ATEX4019X  
Issue 1

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report No.	Comment
0	1 September 2006	R52A12719A	The release of prime certificate.
1	6 June 2007	R52A16583B	This Issue covers the following changes: <ul style="list-style-type: none"><li>All previously issued certification was rationalised into a single certificate, Issue 1, Issue 0 referenced above is only intended to reflect the history of the previous certification and has not been issued as a document in this format.</li><li>The introduction of Variation 1.</li></ul>

#### 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 5°C.

15.3 The incoming terminals shall be connected to a supply that complies with the requirements of FNICO as defined by the standard IEC60079-27: 2005/EN60079-27: 2006

#### 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 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 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.

# Certificate Annexe

**Certificate Number:** Sira 06ATEX4019X  
**Component:** IA Series Pressure Transmitter (Fieldbus)  
**Applicant:** Invensys Systems Inc.



## Issue 0

### Terminal Block

Drawing	Sheet	Rev.	Date	Title
D0149HN	1 to 2	C	21 Jun 05	PWA FieldBus FISCO terminal block
D0149HP	1 of 1	B	21 Jun 05	PWB FieldBus FISCO terminal block
10111QX	1 to 2	C	02 Jun 05	Schematic FieldBus FISCO terminal block

### Fisco MAU Board

Drawing	Sheet	Rev.	Date	Title
10111QW	1 of 1	A	23 Aug 04	FISCO FieldBus Panel Informational Drawing
D0149HL	1 to 4	A	23 Aug 04	FISCO FieldBus MAU PWA
D0149HM	1 of 1	A	23 Aug 04	FISCO FieldBus MAU PWB
10111QV	1 to 6	OA	16 Aug 04	FISCO Schematic MAU Board

### Fisco SI Board

Drawing	Sheet	Rev.	Date	Title
D0149HE	1 to 3	A	13 May 04	PWA Sensor Interface / Processor for FISCO FieldBus
D0149HH	1 of 1	A	13 May 04	PWB Sensor Interface / Processor for FISCO FieldBus
10111QP	1 to 5	OA	19 May 04	Schematic Processor/Sensor Interface for FISCO FieldBus

### Neck Board

Drawing	Sheet	Rev.	Date	Title
D0149GM	1 to 2	D	11 Mar 02	PWA IASPT Neck Board
D0149WT	1 of 1	J	11 Mar 02	PWB IASPT Neck Board
10111CQ	1 to 2	L	14 Jan 02	Schematic IASPT Neck Board

### Display Board

Drawing	Sheet	Rev.	Date	Title
D0149XB	1 to 3	D	28 Mar 01	PWA Digital Indicator circuit for IASPT
D0149XC	1 of 1	D	27 Mar 01	PWB Digital Indicator circuit for IASPT
10111CK	1 to 5	D	16 Mar 01	Schematic Digital Indicator circuit for IASPT

### General

Drawing	Sheet	Rev.	Date	Title
D0162UU	1 of 1	A	08 Sep 04	FISCO FieldBus Electronics Module
10121EL	1 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	2 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	3 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	4 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	5 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	6 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	7 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	8 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	9 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	10 of 16	T	11 Feb 05	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	11 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing (FM ONLY)

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# Certificate Annexe

**Certificate Number:** Sira 06ATEX4019X  
**Component:** IA Series Pressure Transmitter (Fieldbus)  
**Applicant:** Invensys Systems Inc.



Drawing	Sheet	Rev.	Date	Title
10121EL	12 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	13 of 16	K	24 Jul 01	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	14 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	15 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing (FM ONLY)
10121EL	16 of 16	N	23 Jun 02	IASPT Structure Agency Information Drawing (FM ONLY)
X0180HG	1 to 2	A	21 Nov 03	Potting Compound

## FoxComp Part Numbers

Drawing	Sheet	Rev.	Date	Title
P0188AB	1 of 1	-	02 Aug 05*	1206 Series Thick Film Resistor
P0188RY	1 of 1	-	02 Aug 05*	1206 Series Thick Film Resistor
P0187PF	1 of 1	-	02 Aug 05*	0805 Series Thick Film Resistor
P0187PW	1 of 1	-	02 Aug 05*	0805 Series Thick Film Resistor
P0187PZ	1 of 1	-	02 Aug 05*	0805 Series Thick Film Resistor
P0187QR	1 of 1	-	02 Aug 05*	0805 Series Thick Film Resistor
P0187QV	1 of 1	-	02 Aug 05*	0805 Series Thick Film Resistor
P0153KN	1 of 1	-	02 Aug 05*	Schottky Diode
P0202DH	1 of 1	-	02 Aug 05*	1N5920B Zener Diode
P0185ET	1 of 1	-	02 Aug 05*	0603 Series Thick Film Resistor
P0185FV	1 of 1	-	02 Aug 05*	0603 Series Thick Film Resistor
P0185DT	1 of 1	-	02 Aug 05*	0603 Series Thick Film Resistor
P0185CJ	1 of 1	-	02 Aug 05*	0603 Series Thick Film Resistor
P0185DH	1 of 1	-	02 Aug 05*	0603 Series Thick Film Resistor
P0207CC	1 of 1	-	02 Aug 05*	40mA Fast Acting Fuse
P0204CS	1 of 1	-	02 Aug 05*	Melf Resistor
P0204BN	1 of 1	-	02 Aug 05*	Melf Resistor
P0204FW	1 of 1	-	02 Aug 05*	Melf Resistor
P0204AT	1 of 1	-	02 Aug 05*	Melf Resistor
P0153HS	1 of 1	-	02 Aug 05*	Two Diode Array
P0153KQ	1 of 1	-	02 Aug 05*	Twelve Diode Array
P0202FD	1 of 1	-	02 Aug 05*	1SMB5922BT3 Zener Diode
BF161ZJ	1 of 1	-	02 Aug 05*	SMD Common Mode Choke

\* This is the date that the drawing was stamped by Sira.

## Additional Drawings

Drawing	Sheet	Rev.	Date	Title
P0153LM	1 of 1	-	28 Jun 06	Transient Voltage Suppressor
D0186VH	1 of 1	C	28 Jun 06	PLATE, DATA FISCO/FNICO, Gauge (ATEX)
D0186VJ	1 of 1	C	28 Jun 06	PLATE, DATA FISCO/FNICO, DP (ATEX)
10122RX	1 to 8	J	09 Feb 06	Functional Assembly Procedure for I/A series Pressure Transmitters

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# Certificate Annexe



**Certificate Number:** Sira 06ATEX4019X  
**Component:** IA Series Pressure Transmitter (Fieldbus)  
**Applicant:** Invensys Systems Inc.

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## Issue 1

Number	Sheet	Rev.	Date	Description
DO149HE	1 to 4	B	29 Jan 07	PWA Sensor Interface/Processor for FISCO FieldBus <b>(FISCO SI Board)</b>
10111QP	1 to 6	B	26 Jan 07	Schematic Processor/Sensor Interface for FISCO FieldBus <b>(FISCO SI Board)</b>
D0149HF	1 to 4	B	12 Mar 07	PWA Sensor Interface/Processor for FISCO Premium <b>(FISCO SI Board) Premium version</b>
D0149HJ	1 of 1	A	15 Dec 06	PWB Sensor Interface/Processor for FISCO Premium <b>(FISCO SI Board) Premium version</b>
10111QQ	1 of 6	B	26 Jan 07	Schematic Sensor Interface/Processor for FISCO Premium <b>(FISCO SI Board) Premium version</b>
D0162UV	1 of 1	A	18 Dec 06	FF Electronics Premium module <b>(General) Premium version</b>

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