1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 13ATEX2365X** Issue: **1**

4 Equipment: **Options I4, I6, C6 and C6-rond/carre Force Transducers**

5 Applicant: **Sensy SA**

6 Address: Z.I of Jumet
Allée Centrale
B-6040 JUMET
Belgium

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 60079-0:2012 EN 60079-11:2012 EN 60079-26:2006

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.

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 1GD
Ex ia IIC T6 Ga
Ex ia IIIC T80°C Da
Ta = -40°C to +60°C

Project Number 29086

A C Smith
Certification Manager

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE **Sira 13ATEX2365X**
Issue 1

13 DESCRIPTION OF EQUIPMENT

The Force Transducers are designed to convert an applied load into a proportional analogue output signal. The equipment comprises of a load sensing strain-gauge bridge and optional resistors, all housed and encapsulated within a metal enclosure. The only differences between the Force Transducers in the range are their physical size and magnitude of load measurements.

Each model may vary, within defined limits, in size and shape to cover a variety of load capacities. Additional mechanical attachments may be added to create loading assemblies.

The various configuration options are detailed below:

Option	I4 Force transducer	I6 Force transducer	C6 Force transducer	C6-rond / C6-carre Force transducer
BODY	CE-5000-XXXXXXXXXXX CE-5300-XXXXXXXXXXX CE-5600- XXXXXXXXXXX CE-5560- XXXXXXXXXXX CE-2600- XXXXXXXXXXX CE-2960- XXXXXXXXXXX CE-5100-XXXXXXXXXXX CE-5105-XXXXXXXXXXX	CE-5000-XXXXXXXXXXX CE-5300-XXXXXXXXXXX CE-5600- XXXXXXXXXXX CE-5560- XXXXXXXXXXX CE-2600- XXXXXXXXXXX CE-2960- XXXXXXXXXXX CE-5100-XXXXXXXXXXX CE-5105-XXXXXXXXXXX	CE-5000-XXXXXXXXXXX CE-5300-XXXXXXXXXXX CE-5600- XXXXXXXXXXX CE-5560- XXXXXXXXXXX CE-2600- XXXXXXXXXXX CE-2960- XXXXXXXXXXX	CE-5000-XXXXXXXXXXX CE-5300-XXXXXXXXXXX CE-5600- XXXXXXXXXXX CE-5560- XXXXXXXXXXX CE-2600- XXXXXXXXXXX CE-2960- XXXXXXXXXXX
STRAIN GAUGES	Transducer-class strain gauges (no resistance limitation > 350Ω)	Transducer-class strain gauges: * Resistance > 1000Ω	Transducer-class strain gauges: * Resistance > 1000Ω	Transducer-class strain gauges: * Resistance > 1000Ω
** CORRECTION CIRCUIT	CI-5000XXX CI-5510XXX CI-2712XXX	CI-5000XXX CI-5510XXX CI-2712XXX	CI-5000XXX CI-5510XXX CI-2712XXX	CI-5000XXX CI-5510XXX CI-2712XXX
AMPLIFIER	-	-	ICA5A amplifier	ICA5A amplifier
OUTPUT WIRE	Connector or cable gland in function of environmental conditions	Connector or cable gland in function of environmental conditions	Connector or cable gland in function of environmental conditions	Connector or cable glands in function of environmental conditions
Cable	4 Wires Cable (6 wires if Sense)	4 wires Cable (6 Wires if Sense)	2 Wires cable	4 wires/ 2 wires Cable
The total combination of Ui, Ii and Pi at Power supply and signal output lines) shall not exceed	Ui = 28V Ii = 160 mA Pi = 0.7W Ci = 0 Li = 0	Ui = 28V Ii = 160 mA Pi = 0.7W Ci = 0 Li = 0	Ui = 28V Ii = 160 mA Pi = 0.7W Ci = 0 Li = 15.92 µH	Ui = 28V Ii = 160 mA Pi = 0.7W Ci = 0 Li = 15.92 µH

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	12 March 2014	R29086A/00	The release of the prime certificate.
1	18 August 2014	R29086A/01	Issued to allow Sira R29086A/00 to be replaced by R29086A/01

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE **Sira 13ATEX2365X**
Issue 1

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

15.1 When the apparatus is used in dust atmospheres, connectors, plugs and cable glands used shall have an ingress protection of at least IP6X.

15.2 The equipment is not capable of withstanding the 500V dielectric strength requirement in accordance with clause 6.3.13 of EN 60079-11:2012. This shall be taken into account when installing the equipment.

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.

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Certificate Annexe

Certificate Number: **Sira 13ATEX2365X**

Equipment: **Options I4, I6, C6 and C6-rond/carre Force Transducers**

Applicant: **Sensy SA**

Issue 0

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
-	1 to 28	-	11 Mar 14	Manual for CSA (C) Zone Approval Shear Beam transducers; 5000-5300-5600-5560-2600
CI-5000-2001	1 of 1	A3	11 Mar 14	Circuit 5000-2001 (Ø 16)
CI-5510-1999	1 of 1	A4	11 Mar 14	Circuit 5510-1999
-	1 of 1	10/12/2013	11 Mar 14	Bill of materials
-	1 of 1		11 Mar 14	Control drawing for C6, C6-rond, C6-carre Options
-	1 of 1		11 Mar 14	Control drawing for I4 and I6 Options
-	1 of 1		11 Mar 14	Option c6-rond
-	1 of 1		11 Mar 14	Double bridge Control drawings
Option C6-carre	1 of 1	25/06/2012	11 Mar 14	Option C6-carre
-	1 of 1	-	11 Mar 14	ATEX Clearances
-	1 of 1	-	11 Mar 14	ATEX Top clearances
ICA5518-908	1 of 1	1	11 Mar 14	Bottom Layer
ICA5118-908	1 of 1	-	11 Mar 14	Bottom Overlay
518-908	1 of 1	1	11 Mar 14	Schematic
518-908	1 of 1	1	11 Mar 14	Top layer
518-908	1 of 1	1	11 Mar 14	Top Overlay

Issue 1

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
-	1 to 32	Rev1	1 Aug 14	Manual for Intrinsic Safety Approval- Force transducers: 5000-5300-5600-5560-2600-2960
CI-5000-2001	1 of 1	A3	11 Mar 14	Circuit 5000-2001 (Ø 16)
CI-5510-1999	1 of 1	A4	11 Mar 14	Circuit 5510-1999
-	1 of 1	rev0	11 Mar 14	Bill of materials
-	1 of 1	10/12/2013	11 Mar 14	Control drawing for C6, C6-rond, C6-carre Options
-	1 of 1	10/12/2013	11 Mar 14	Control drawing for I4 and I6 Options
-	1 of 1	25/06/2012	11 Mar 14	Option c6-rond
-	1 of 1	10/12/2013	11 Mar 14	Double bridge Control drawings
Option C6-carre	1 of 1	25/06/2012	11 Mar 14	Option C6-carre
ATEX clearances	1 of 1	1	11 Mar 14	ATEX Clearances
ATEX top clearances	1 of 1	1	11 Mar 14	ATEX Top clearances
ICA5518-908	1 of 1	1	11 Mar 14	Bottom Layer
ICA5118-908	1 of 1	1	11 Mar 14	Bottom Overlay
518-908	1 of 1	1	11 Mar 14	Schematic
518-908	1 of 1	1	11 Mar 14	Top layer
518-908	1 of 1	1	11 Mar 14	Top Overlay

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