



EU-TYPE EXAMINATION CERTIFICATE

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

Certificate Number: **Sira 13ATEX2365X** Issue: **4**

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

Applicant: **Sensy SA**

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

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

CSA Group Netherlands B.V., notified body number 2813 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.

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 IEC 60079-0:2018 EN 60079-11:2012

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.

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.

The marking of the equipment shall include the following:



II 1GD

Ex ia IIC T6 Ga

Ex ia IIIC T₂₀₀81°C Da (Vol => 580cms³)

Ta = -55°C to +60°C

Signed: M Halliwell

Title: Director of Operations



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SCHEDULE

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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	I6	C6	C6-rond C6-carré
Body	CE-500Y-XXXXXXXXXX CE-505Y-XXXXXXXXXX CE-530Y-XXXXXXXXXX CE-560Y-XXXXXXXXXX CE-556Y-XXXXXXXXXX CE-260Y-XXXXXXXXXX CE-296Y-XXXXXXXXXX CE-510Y-XXXXXXXXXX CE-510Y-XXXXXXXXXX	CE-500Y-XXXXXXXXXX CE-505Y-XXXXXXXXXX CE-530Y-XXXXXXXXXX CE-560Y-XXXXXXXXXX CE-556Y-XXXXXXXXXX CE-260Y-XXXXXXXXXX CE-296Y-XXXXXXXXXX CE-510Y-XXXXXXXXXX CE-510Y-XXXXXXXXXX	CE-500Y-XXXXXXXXXX CE-505Y-XXXXXXXXXX CE-530Y-XXXXXXXXXX CE-560Y-XXXXXXXXXX CE-556Y-XXXXXXXXXX CE-260Y-XXXXXXXXXX CE-296Y-XXXXXXXXXX CE-510Y-XXXXXXXXXX CE-510Y-XXXXXXXXXX	CE-500Y-XXXXXXXXXX CE-505Y-XXXXXXXXXX CE-530Y-XXXXXXXXXX CE-560Y-XXXXXXXXXX CE-556Y-XXXXXXXXXX CE-260Y-XXXXXXXXXX CE-296Y-XXXXXXXXXX CE-510Y-XXXXXXXXXX CE-510Y-XXXXXXXXXX
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	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 gland 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
Total combination of Ui, Ii and Pi, at power supply and signal output lines	Ui = 28.0V; Ii = 160mA; Pi = 0.7W; Ci = 0 nF; Li = 0 μH	Ui = 28.0V; Ii = 160mA; Pi = 0.7W; Ci = 0 nF; Li = 0 μH	Ui = 28.0V; Ii = 160mA; Pi = 0.7W; Ci = 0 nF; Li = 15.92 μH	Ui = 28.0V; Ii = 160mA; Pi = 0.7W; Ci = 0 nF; Li = 15.92 μH

Variation 1 - This variation introduced the following changes:

- To extend the lower ambient temperature to -55°C for certain encapsulation materials, as a result an additional Condition of Manufacture was introduced.

Variation 2 - This variation introduced the following changes:

- Correction to the revision level for the following drawings CI-5000-2001 and CI-5510-1999.
- Revised user instructions.
- Correction to the model nomenclature and introduction of a Specific Condition of Use.
- Marking requirements as a result of the appropriate assessment to demonstrate compliance with the requirements of the IEC 60079 series of standards, the standards EN 60079-0:2012 were replaced by EN IEC 60079-0: 2018 respectively, the markings were amended accordingly.

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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated 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.
2	10 July 2018	R70183376A	This Issue covers the following changes: <ul style="list-style-type: none">• EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. <i>(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.)</i>• The introduction of Variation 1.
3	15 October 2019	0423	Transfer of certificate Sira 13ATEX2365X from Sira Certification Service to CSA Group Netherlands B.V..
4	17 April 2023	R80139285A	The introduction of Variation 2.

15 SPECIFIC CONDITIONS OF 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.
- 15.3 The enclosure of the C6 CARRE amplifier box is manufactured from aluminium. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.

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 CSA Group Netherlands B.V. 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 When the Dowsil encapsulants Type 3140 and 3145 are used in the equipment a lower ambient temperature of -55°C, from -40°C, can be permitted for the equipment.

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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	-*	11 Mar 14	Circuit 5000-2001 (Ø 16)
CI-5510-1999	1 of 1	-*	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

* Revision level corrected. Refer to report associated with Issue 4.

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
ET-IECEX-80X50-CP-55-I	1 of 1	0	04 Jul 18	Label for -55°C option

Issue 3 – No new drawings were introduced.

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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 4

Drawing	Sheets	Rev.	Date (Stamp)	Title
ET-SIRA-UKCA-Exi-LXLg CP-55 VOL SUP 580cm ³	1 of 1	0	22 Dec 22	Ex ia LABEL FOR SENSOR SIRA&UKCA GAS AND DUST LOW TEMP with VOL>580cm ³ . (-55°C ≤ Ta ≤ +60°C & ≥ VOL 580cm ³)
ET-SIRA-UKCA-Exi-LXLg VOL SUP 580cm ³	1 of 1	0	22 Dec 22	Ex ia LABEL FOR SENSOR SIRA&UKCA GAS AND DUST with VOL>580cm ³ (-40°C ≤ Ta ≤ +60°C & ≥ VOL 580cm ³)
ET-IECEX-SIRA-UKCA-Exi-LXLg CP-55 VOL SUP 580cm ³	1 of 1	0	22 Dec 22	Ex ia LABEL FOR SENSOR IECEX&SIRA&UKCA GAS AND DUST LOW TEMP with VOL>580cm ³ (-55°C ≤ Ta ≤ +60°C & ≥ VOL 580cm ³)
ET-IECEX-SIRA-UKCA-Exi-LXLg VOL SUP 580cm ³	1 of 1	0	22 Dec 22	Ex ia LABEL FOR SENSOR IECEX&SIRA&UKCA GAS AND DUST with VOL>580cm ³ (-40°C ≤ Ta ≤ +60°C & ≥ VOL 580cm ³)
ET-IECEX- SIRA-UKCA-Exi-no DUST	1 of 1	0	10 Mar 23	Ex ia LABEL FOR SENSOR IECEX&SIRA&UKCA GAS (-40°C ≤ Ta ≤ +60°C & any vol)
DT-BET-BOM_Illustration	1 to 3	1	05 Dec 22	Bill of materials (Summary & drawings)
PA-BD49-BFM40-CM18	1 of 1	-	05 Dec 22	Prix d'achat composants SF-BD49-BFM40-CM18
DT-SAQ-ATEX&CSA Bill of materials	1 of 1	3	05 Dec 22	Bill of materials
ET-EXI-WARNING LIGHT MATERIAL	1 of 1	1	22 Dec 22	WARNING LABEL FOR POTENTIALLY SPARKING MATERIAL
CI-5000-2001	1 of 1	-*	11 Mar 14	Circuit 5000-2001 (Ø 16)
CI-5510-1999	1 of 1	-*	11 Mar 14	Circuit 5510-1999
OPTION_C6_CARRE_EX_R DOC	1 of 1	0	22 Dec 22	C6-CARRE option (Ref.Doc)

* revision level correction (not new drawings).

The following drawing no longer forms part of the certification documentation.

Drawing	Sheets	Rev.	Date (Stamp)	Title
ET-IECEX-80X50-CP-55-I	1 of 1	0	04 Jul 18	Label for -55°C option

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