



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx SIR 13.0148X

Issue No: 2

Certificate history:

Status: **Current**

Issue No. 2 (2018-07-10)

Issue No. 1 (2014-08-18)

Date of Issue: **2018-07-10**

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Issue No. 0 (2014-06-11)

Applicant: **Sensy SA**  
Z.I of Jumet  
Allée Centrale  
B-6040 JUMET  
**Belgium**

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

*Optional accessory:*

Type of Protection: **Intrinsically Safe**

Marking:

Ex ia IIC T6 Ga  
Ex ia IIIC T80°C Da  
Ta = -55°C to +60°C

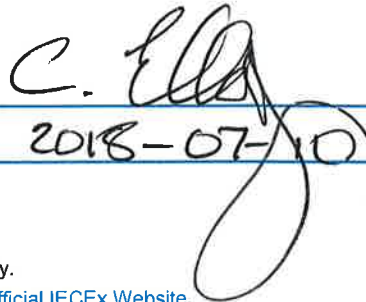
*Approved for issue on behalf of the IECEx  
Certification Body:*

C Ellaby

*Position:*

Deputy Certification Manager

*Signature:  
(for printed version)*



*Date:*



1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**SIRA Certification Service**  
CSA Group  
Unit 6, Hawarden Industrial Park  
Hawarden, Deeside, CH5 3US  
United Kingdom

**sira**  
CERTIFICATION





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Manufacturer: **Sensy SA**  
Z.I of Jumet  
Allée Centrale  
B-6040 JUMET  
**Belgium**

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended.

#### STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-26 : 2006</b> Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

##### Test Report:

[GB/SIR/ExTR14.0065/01](#)

[GB/SIR/ExTR18.0114/00](#)

##### Quality Assessment Report:

[GB/SIR/QAR14.0006/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

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.

Refer to the Annexe for Configuration options and Conditions of Manufacture.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When the apparatus is used in dust atmospheres, connectors, plugs and cable glands used shall have an ingress protection of at least IP6X
2. The equipment is not capable of withstanding the 500V dielectric strength requirement in accordance with clause 6.3.13 of IEC 60079-11:2011. This shall be taken into account when installing the equipment.



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

**Issue 1** – this Issue introduced the following changes:

1. Issued to allow GB/SIR/ExTR14.0065/00 to be replaced by GB/SIR/ExTR14.0065/01.

**Issue 2** – this Issue introduced the following changes:

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

## Annex:

[IECEx SIR 13.0148X Annexe Issue2.pdf](#)

**Annexe to:** IECEx SIR 13.0148X Annexe Issue 2

**Applicant:** Sensy SA

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



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-XXXXXXXXXX CE-5300-XXXXXXXXXX CE-5600-XXXXXXXXXX CE-5560-XXXXXXXXXX CE-2600-XXXXXXXXXX CE-2960-XXXXXXXXXX CE-5100-XXXXXXXXXX CE-5105-XXXXXXXXXX	CE-5000-XXXXXXXXXX CE-5300-XXXXXXXXXX CE-5600-XXXXXXXXXX CE-5560-XXXXXXXXXX CE-2600-XXXXXXXXXX CE-2960-XXXXXXXXXX CE-5100-XXXXXXXXXX CE-5105-XXXXXXXXXX	CE-5000-XXXXXXXXXX CE-5300-XXXXXXXXXX CE-5600-XXXXXXXXXX CE-5560-XXXXXXXXXX CE-2600-XXXXXXXXXX CE-2960-XXXXXXXXXX	CE-5000-XXXXXXXXXX CE-5300-XXXXXXXXXX CE-5600-XXXXXXXXXX CE-5560-XXXXXXXXXX CE-2600-XXXXXXXXXX CE-2960-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 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

### Conditions of Manufacture

The Manufacturer shall comply with the following:

1. 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.