



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

Certificate No.: IECEx BAS 17.0109X Issue No: 1 Certificate history:
Issue No. 1 (2018-10-10)
Issue No. 0 (2018-02-02)

Status: **Current** Page 1 of 5

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

Applicant: **Sensonics Limited**
Northbridge Road
Berkhamstead
Hertfordshire
HP4 1EF
United Kingdom

Equipment: **PZ Series Vibration Transducers**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ia IIC T4 Ga**
Ex ia IIIC T130°C Da
Ex ia I Ma

(-40°C ≤ Ta ≤ +120°C)

Approved for issue on behalf of the IECEx
Certification Body:

R. S. Sinclair

D BREARLEY
Certification
Manager

Position:

Technical Manager

Signature:
(for printed version)

Date:


11/10/18

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:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





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Manufacturer: **Sensonics Limited**
Northbridge Road
Berkhamstead
Hertfordshire
HP4 1EF
United Kingdom

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:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

*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/BAS/ExTR17.0292/00](#)

[GB/BAS/ExTR18.0235/00](#)

Quality Assessment Report:

[GB/BAS/QAR17.0019/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The PZ Series Vibration Transducer is designed to convert a mechanical vibration into an electrical output signal (mV or 4-20mA).

It comprises a piezoelectric crystal and various electronic components (depending on the variant) mounted on two printed circuit boards, encapsulated as an inner assembly within a metal enclosure which may differ in mounting arrangement. Electrical connections are made to the free-end of an integral cable or a 2-pin connector.

The variants and their outputs covered by this certificate are as follows:

PZS 100mV/g Accelerometer

PZV 4mV/mm.s-1 Velocity Transducer

PZDC 4-20mA Velocity Transducer

Each variant may be enclosed within 3-point mounting base enclosure, captive mounting bolt enclosure or threaded base enclosure.

INPUT PARAMETERS

PZS

	Connector	Integral cable
$U_i = 28.5V$	$C_i = 30nF$	$C_i^{*1} = 30nF + 220pF/m$
$I_i = 114mA$	$L_i = 0$	$L_i = 0 + 0.83\mu H/m$
$P_i = 0.66W$		

PZV / PZDC

	Connector	Integral cable
$U_i = 28.5V$	$C_i = 4.7nF$	$C_i^{*1} = 4.7nF + 220pF/m$
$I_i = 114mA$	$L_i = 0$	$L_i = 0 + 0.83\mu H/m$
$P_i = 0.66W$		

*1 Subject to the following limits:

Group IIC	78nF
Group IIB / IIIC	627nF
Group IIA	2.05μF
Group I	3.6μF



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SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The flying lead terminations, where applicable, must be afforded a degree of protection of at least IP20.



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

Variation 1.1

To permit minor electrical and mechanical changes. The input parameters have been amended to reflect a change in Ci to 4.7nF (PZV/PZDC).

ExTR: GB/BAS/ExTR18.0235/00

File Reference: 18/0562