



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEX BAS 17.0109X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 3	Issue 2 (2021-10-18)
Date of Issue:	2024-02-29		Issue 1 (2018-10-10)
Applicant:	Sensonics Limited Northbridge Road Berkhamstead Hertfordshire HP4 1EF United Kingdom		Issue 0 (2018-02-02)
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:

M Powney

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

29/2/2024

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 www.iecex.com or use of this QR Code.



Certificate issued by:

SGS UK 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

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

Sensonics (Shanghai) Co., Ltd.
No. 219
4333 Panjing Road
Baoshan District
Shanghai 200949
China

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with 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 Reports:

[GB/BAS/ExTR17.0292/00](#)

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

[GB/BAS/ExTR21.0174/00](#)

Quality Assessment Reports:

[GB/BAS/QAR17.0019/04](#)

[GB/SGS/QAR23.0010/00](#)



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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 + 0.83μH/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 + 0.83μH/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

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 add an alternative manufacturing location only

File Reference: **24/0131**