

1 **UK-TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1**

3 UK-Type Examination Certificate Number: **BAS21UKEX0469X**

4 Product: **PZ Series Vibration Transducer**

5 Manufacturer: **Sensonics Limited**

6 Address: **Northbridge Road, Berkhamstead, Hertfordshire, HP4 1EF**

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

8 SGS Baseefa, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR21.0174/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:


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

except in respect of those requirements listed at item 18 of the Schedule.


10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

 **II 1 GD Ex ia IIC T4 Ga** (-40°C ≤ Ta ≤ +120°C)

Ex ia IIIC T130°C Da (-40°C ≤ Ta ≤ +120°C)

 **I M1 Ex ia I Ma** (-40°C ≤ Ta ≤ +120°C)

SGS Baseefa Customer Reference No. **0957**

Project File No. **21/0340**

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SGS Baseefa Limited

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ

Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail baseefa@sgs.com web site www.sgs.co.uk/sgsbaseefa

Registered in England No. 4305578.

Registered address: Rossmore Business Park, Ellesmere Port, Cheshire,
CH65 3EN



R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

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Schedule

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Certificate Number BAS21UKEX0469X

15 Description of Product

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 a 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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17 Specific Conditions of Use

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

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product:

Clause	Subject	Compliance
1.2.7	LVD type requirements	Manufacturer responsibility
1.2.8	Overloading of equipment (protection relays, etc.)	User/Installer responsibility

Clause	Subject	Compliance
1.4.1	External effects	User/Installer responsibility
1.4.2	Aggressive substances, etc.	User/Installer responsibility

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
045/2280A	1 of 1	3	3/9/2021	ATEX & IECEx Certification Label Details – PZ Vibration Transducers

For all other drawings see Baseefa17ATEX0133X

This drawing is common to IECEx BAS 17.0109X and Baseefa17ATEX0133X and is held with IECEx BAS 17.0109X.