EU Type Examination Certificate CML 23ATEX2157X Issue 0

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

2 Equipment **QZA Accelerometer**

3 Manufacturer **Sensonics Ltd**

4 Address **Northbridge Road, Berkhamstead, Herts. HP4 1EF. UK**

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 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 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-11:2012

10 The equipment shall be marked with the following:

Ex II 1 G

Ex ia IIB T5 Ga

Ta= -20 °C to +75 °C

11 Description

The Model QZA is an accelerometer designed to measure vibration and provide an electrical output proportional to the vibration. It consists of a piezoelectric crystal and an encapsulated PCB housed in a stainless steel enclosure. Electrical connections are made by either a connector, a flying lead or cables within a conduit.

The equipment has the following safety parameters,

Input Parameters

QZA

	Connector	With Integral Cable
U_i = 28V	C_i = 20 nF	C_i^* = 20 nF + 200 pF/m
I_i = 0.005 A	L_i = 0	L_i = 0 + 1 uH/m
P_i = 1 W		

* Subject to the following maximum limits:

Group IIB	627 nF
Group IIA	2.05 µF

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	01 Aug 2023	R16054A/00	Prime Release

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

i. The equipment may be supplied with an integral cable attached, the cable has the following parameters:

   Cc $\leq$ 200 pF/m

   Lc $\leq$ 1 µH/m

   The user shall take into account the length of the integral cable and the above stated parameters in conjunction with any additional field wiring.

Certificate Annex

Certificate Number	**CML 23ATEX2157X**
Equipment	**QZA Accelerometer**
Manufacturer	**Sensonics Ltd**

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
EA4013B	1 of 1	4	02 Aug 2023	General Assembly Drawing
047/2219B	1 of 1	3	02 Aug 2023	Circuit Diagram, PCB
046/6516A	1 of 1	3	02 Aug 2023	Parts List, PCB
045/2345B	1 to 2	3	02 Aug 2023	Artwork, PCB
EA4005B	1 of 1	3	02 Aug 2023	General Assembly, PCB
045/2347A	1 of 1	3	02 Aug 2023	Artwork, stencil details