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 LCIE 17.0063X

Issue No: 0

Certificate history:
Issue No. 0 (2017-09-22)

Status: **Current**

Date of Issue: **2017-09-22**

Applicant: **PCB Piezotronics**
3425 Walden Avenue
Depew, New York 14043
United States of America

Equipment: **Microphone system - Type : Ex378XYYY**
Optional accessory:

Type of Protection: **Ex ia**

Marking:
Ex ia I Ma

Ex ia IIC T4 Ga

Approved for issue on behalf of the IECEx Certification Body: Julien GAUTHIER

Position: Certification Officer

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.

Certificate issued by:

Laboratoire Central des Industries Electriques (LCIE)
33 Avenue du General Leclerc
FR-92260 Fontenay-aux-Roses
France

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Manufacturer:	**PCB Piezotronics** 3425 Walden Avenue Depew, New York 14043 **United States of America**	

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 electrical 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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*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:

FR/LCIE/ExTR17.0074/00

Quality Assessment Report:

NL/DEK/QAR14.0004/01

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The apparatus is an ICP Microphone Systems, type 378XYYY, integrating a microphone cartridge and a preamplifier.

The delivered signal from ICP Microphone Systems provides a typical +/- 7V peak voltage output signal when making acoustic measurements.

The microphone cartridge is the sensing element (piezoelectric element) and is primarily made from stainless metal alloys.

The preamplifier has a stainless steel housing that contains a PC board with a mating connector at on one end for the microphone cartridge and at the other end to provide the interface to an external cable assembly.

The equipment is intended to be used for leak detection and acoustic noise tests in gaseous or mining explosive areas.

SPECIFIC CONDITIONS OF USE: YES as shown below:

a) Ambient temperature range: -40°C to +80°C.

b) The intrinsically safe apparatus shall only be connected to associated intrinsically safe apparatus certified for the intended use. This association shall comply with the requirements of the standard IEC 60079-25.

c) The mounting of the apparatus into an installation must be carried out in such a way that sensor metallic body and cable shield are reliably connected to the system earth.

d) The apparatus must be connected according to instruction manual.

e) For final installation in mining application, the user shall take all necessary precautions to maintain the minimum degree of protection IP20 of the sensor connection when connected according to the requirements of IEC 60079-14 standard.