



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 18.0006X Issue No: 0 Certificate history:
Issue No. 0 (2018-02-23)

Status: Current Page 1 of 3

Date of Issue: 2018-02-23

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

Equipment: Triaxial high temperature accelerometers - Type : EX356XYYY/MNNNZZ
Optional accessory:

Type of Protection: Ex ia

Marking: Ex ia IIC T6...482°C Ga
Refer to the attachment for full marking.

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](http://www.iecex.com).

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 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:

[FR/LCIE/ExTR18.0008/00](#)

Quality Assessment Report:

[NL/DEK/QAR14.0004/02](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Triaxial high temperature accelerometer is composed of a nickel-based alloy enclosure with a set of piezoelectric crystals, connectors and cables.

There are two versions :

1. Triaxial accelerometer with connectors.
2. Triaxial accelerometer with integral cables.

Refer to the attachment for full description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The apparatus shall only be connected to associated intrinsically safe certified equipment. This combination must be compatible as regard the intrinsic safety rules.
2. Operating ambient temperature: -55°C to +472°C
3. The mounting of the apparatus into an installation must be carried out in such a way that metallic body of the triaxial high temperature accelerometer and cable shield are reliably connected to the system earth.
4. The apparatus must be installed per drawing n°62991 rev. NR dated 2018/02/02.
5. The cable used must have an operating temperature compatible with the environment in which the equipment is installed.

Annex:

[IECEX LCIE 18.0006X issue 00 Annex 01-PCB Piezotronics .pdf](#)



Annex 01 to Certificate IECEX LCIE 18.0006X issue 00



FULL EQUIPMENT DESCRIPTION

Triaxial high temperature accelerometer is composed of a nickel-based alloy enclosure with a set of piezoelectric crystals, connectors and cables.

There are two versions :

- 1) Triaxial accelerometer with connectors.
- 2) Triaxial accelerometer with integral cables.

Title	Reference	Rev. Level	Date
Technical file	62979	NR	2018/02/02
Instruction manual	67111		

MARKING

PCB Piezotronics

Address: ...

Type : EX356XYYY/MNNZZ (1)

Serial number: ...

Year of construction: ...

Ex ia IIC T6...482°C Ga (2)

IECEX LCIE 18.0006 X

$-55^{\circ}\text{C} \leq T_{\text{amb}} \leq +472^{\circ}\text{C}$

U_i : ... V; I_i : ... mA; P_i : ... mW; C_i : ... μF ; L_i : ... μH (3)

(1): completed with type designation.

(2): see temperatures table.

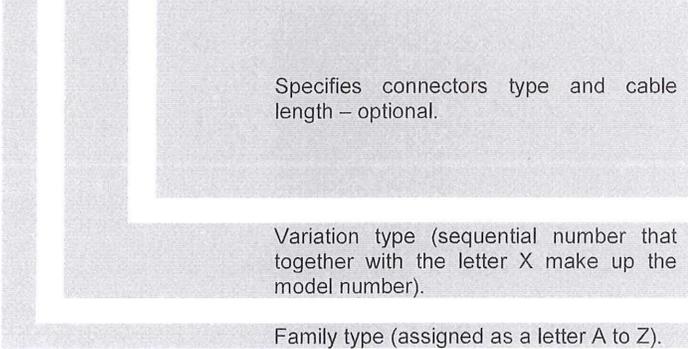
(3): completed by intrinsic safety electrical parameters of version concerned.

Temperatures table

Ambient temperature	Temperature class
$-55^{\circ}\text{C} \leq T_{\text{amb}} \leq +80^{\circ}\text{C}$	T6
$-55^{\circ}\text{C} \leq T_{\text{amb}} \leq +95^{\circ}\text{C}$	T5
$-55^{\circ}\text{C} \leq T_{\text{amb}} \leq +130^{\circ}\text{C}$	T4
$-55^{\circ}\text{C} \leq T_{\text{amb}} \leq +195^{\circ}\text{C}$	T3
$-55^{\circ}\text{C} \leq T_{\text{amb}} \leq +290^{\circ}\text{C}$	T2
$-55^{\circ}\text{C} \leq T_{\text{amb}} \leq +440^{\circ}\text{C}$	T1
$-55^{\circ}\text{C} \leq T_{\text{amb}} \leq +472^{\circ}\text{C}$	482°C

RANGE DETAILS

EX356 X YYY / MNNZZ



- M Present only for metric length for integral cable version.
- NNN Specifies cable length (32 feet or 10 meters max) (three numbers).
- ZZ Specifies connectors type (two letters).

RATINGS

Version	Intrinsic safety electrical parameters
Connectors	U_i : 28 V, I_i : 120 mA, P_i : 1 W, C_i : 750 pF, L_i : 0 or U_i : 15 V, I_i : 900 mA, P_i : 1 W, C_i : 750 pF, L_i : 0
Integral cables	U_i : 28 V, I_i : 120mA, P_i : 1W, C_i : 6 nF, L_i : 30μH or U_i : 15 V, I_i : 900mA, P_i : 1W, C_i : 6 nF, L_i : 30μH

ROUTINE TESTS

None.

APPARATUS OVERVIEW

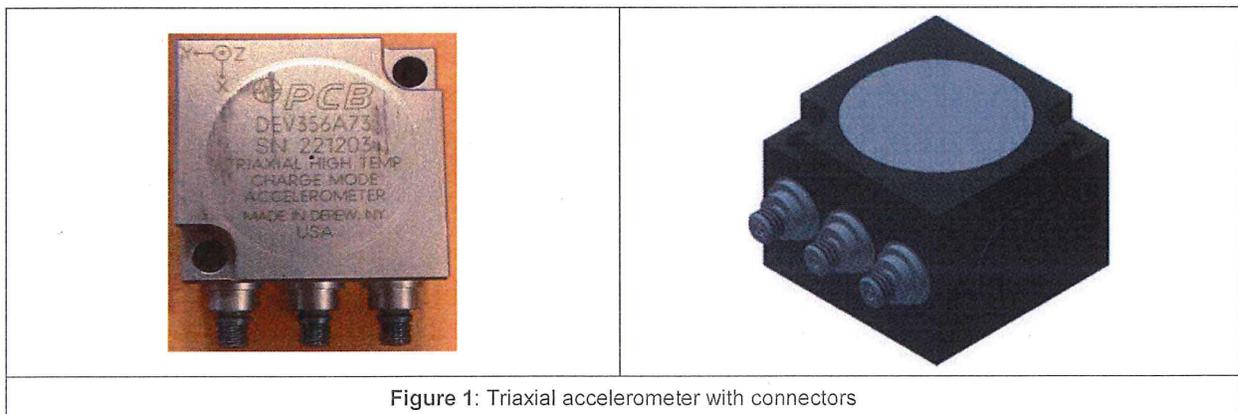


Figure 1: Triaxial accelerometer with connectors