TYPE EXAMINATION
CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

1. **Type Examination Certificate Number:** **ETL25ATEX0564X** **Issue 0**

2. **Product:** Piezoelectric Vibration Sensor (EX604XYYY)

3. **Manufacturer:** IMI Sensors a PCB Division

4. **Address:** 3425 Walden Ave
Depew, NY 14043
USA

Additional Manufacturer Thermometrics Mexico, S.A. DE

Address CAMINO VECINAL 15801, EDIFICIO 03 SUIT A COLONIA EL ROSARIO PARQUE INDUSTRIAL VESTA MEGA REGION; Tijuana, Mexico 22644

Additional Manufacturer PCB Piezotronics of North Carolina

Address 10869 HWy 903 Halifax, North Carolina 27839; USA

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

6. Intertek Testing Services NA Ltd., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the products intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

7. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018+A11:2024, EN IEC 60079-7:2015+A1:2018, EN 60079-11:2012 and EN IEC 60079-15:2019 except in respect of those requirements referred to within item 14 of the Schedule

8. If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.

9. This Type Examination Certificate relates only to the design of the specified product and not to specific items subsequently manufactured.

10. The marking of the product shall include the following:

II 3 G
Ex ic IIC T4 Gc
Ex ec nC IIC T4 Gc
-54°C ≤ Ta ≤ +121°C

Certification Officer: _____ **Date:** 27 August 2025

Todd L. Relyea

SCHEDULE:

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11. Description of Equipment or Protective System

The model EX604XYYY is a piezoelectric vibration sensor that utilizes a Piezoelectric Crystal to convert a mechanical vibration measurement into an electric signal. The sensor consists of a sealed cylindrical metal case with a diameter of 3.5mm and height of 2.5mm, which houses a PCB substrate board and 3 piezo crystal elements. The circuitry is connected to a connector welded on the metal case or to an integral cable.

Model Nomenclature: EX(M)604XYYYZ/(M)AAABB

M = Metric mounting thread.
X = One letter that designates the revision level (with "M" reserved for customer Special Orders). Special Orders are Standard PCB Models etched with customer information such as logos or alternate part number.
YYY = 0 - 999 that designate which cable/connector type that might be sold with the sensor based on customer request, and sensitivity, filtering, or bias.
Z = One letter that designates a variation of the current model for the cable version.
M = Metric length in meters.
AAA = Three numbers that designate the length of cable.
BB = Two letters that designate the cable termination.

Ratings:
Ex ec nC:

- 28V, 180mA

Ex ic:

- Connector version: Ui = 28V, Ii = 180mA, Pi = 1.26W, Ci = 63nF, Li = 0uH
- Integral cable version: Ui = 28V, Ii = 180mA, Pi = 1.26W, Ci = 83nF, Li = 100uH; Maximum cable length 327'

12. Report Number

Intertek Report: 106248617CRT-001F Issue: 0 Dated: 27 August 2025.

13. Conditions of Certification

(a). Special Conditions of Use

- All sealing devices including cable glands, blanking elements, thread adapters, stopping plugs and connectors shall be suitably certified when the equipment is installed in accordance with type of protection Ex ec. This connection shall maintain a minimum degree of protection of IP54 and have been submitted to all relevant type tests of EN IEC 60079-0. The sealing device shall have a rated service temperature in excess of -54°C to +121°C and be suitably sized for the cabling which is carried. Installation shall take into account any applicable special conditions for safe use or schedule of limitations and all relevant installation requirements of EN 60079-14.
- When the equipment is installed in accordance with method of protection Ex ec, the connection between the provided socket and installed plug must be made in a manner that cannot be separated without the use of a tool.
- When the equipment is installed in accordance with type of protection Ex ec, the equipment shall be provided with transient protection which limits the input voltage to 39.2V (140% of the peak rated voltage value) at the supply terminals to the equipment.
- Integral cable version is limited to Ex ic version of equipment. Maximum cable length specified is 327'.
- All cabling shall be rated for a minimum ambient range of -54°C to +121°C.

(b). Conditions of Manufacture - Routine Tests

- EN IEC 60079-7:2015+A1:2018 Clause 7.1 & EN IEC 60079-15:2019 Clause 12.1 – A dielectric strength test shall be carried out at 500V r.m.s for 60 seconds. Alternatively, a test shall be carried out at 1.2 times the test voltage but maintained for at least 100 ms.

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) affected by this variation have been identified and assessed in Intertek report 106248617CRT-001F Issue: 0 Dated: 27 August 2025.

15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
ATEX Technical File	68445	B	7/30/2025