



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 EMT 18.0005X Issue No: 1 Certificate history:
Status: Current Issue No. 1 (2019-01-31)
Date of Issue: 2019-01-31 Issue No. 0 (2018-10-03)
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Applicant: Pulsar Process Measurement Limited
Cardinal Building, Enigma Commercial Centre, Sandy's Road, Malvern, Worcestershire,
WR14 1JJ
United Kingdom
Equipment: Ultrasonic Transducers Hart dBi range, & Profibus PA dBi range
Optional accessory:
Type of Protection: Intrinsic safety "ia"
Marking:
Ex ia IIC T4 Ga Tamb -40 °C to +80 °C
Ex ia IIIC T130 °C Da Tamb -40 °C to +80 °C

Approved for issue on behalf of the IECEx Stephen Winsor
Certification Body:

Position: Certification Manager

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:

Element Materials Technology
Unit 1 Pendle Place
Skelmersdale
West Lancashire
United Kingdom





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Manufacturer: **Pulsar Process Measurement Limited**
Cardinal Building, Enigma Commercial Centre, Sandy's Road, Malvern, Worcestershire, WR14 1JJ
United Kingdom

Additional Manufacturing location(s):

Pulsar Process Measurement Limited
Unit 5 Lancaster Way, Earls Colne Airfield Business Park, Earls Colne, Nr Colchester, Essex, CO6 2NS
United Kingdom

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 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:

GB/EMT/EExTR18.0005/00

Quality Assessment Report:

GB/BAS/QAR15.0006/02 GB/SIR/QAR06.0030/09



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Hart dBi and Profibus dBi ultrasonic transducers are a range of low power, compact acoustic measurement devices. They are intended to be powered via an ATEX / IECEx approved power supply such as a Zener barrier. Additionally, the Profibus PA model may be powered by an approved FISCO power supply, from a control unit which also processes the measurement data received.

The range of transducers consists of slightly different constructions with respect to dimensions but all have a non-metallic enclosure which houses two internal electronic PCBs and a piezo crystal. The free space internally is potted with one or two types of materials. Each unit has an integral screened cable for the power supply and some of the models use syntactic foam as a facing material.

Hart dBi and Profibus dBi models are identical in construction, but feature different internal circuitry.

Physical differences between the different model types are listed in the Annex to this certificate

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1) Potential electrostatic hazard – the dBi transducers must only be wiped with a damp or antistatic cloth.
- 2) The equipment must be routinely inspected to avoid the build-up of dust layers when installed in a Zone 20, 21 or 22 environment.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1

Addition of second manufacturing location. No other change.

Annex:

[Annex to IECEx EMT 18.0005X issue 1.pdf](#)