

IECEx Certificate of Conformity

Glenn Manifold BSc (Hons) CQP MCQI

INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx EXV 21.0049X** Page 1 of 4

Issue No: 1 Status: Current

2025-09-25 Date of Issue:

Applicant: **Guided Ultrasonics Limited**

Wavemaker House

3 Brentwaters Business Park

The Ham **Brentford DH8 8WT United Kingdom**

Equipment: gPIMS® Ex Wifi Field Control Unit (GP-FCU-WIFI-EX-CM)

Optional accessory:

Equipment protection by intrinsic safety "i" Type of Protection:

Marking: Ex ia IIB T4 Ga

Ta = -40 $^{\circ}$ C to +70 $^{\circ}$ C

Approved for issue on behalf of the IECEx

Certification Body:

Position: **Certification Manager**

Signature:

(for printed version)

(for printed version)

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Certificate history: Issue 0 (2022-05-30)

Certificate issued by:

ExVeritas Limited Units 16-18 Abenbury Way Wrexham Ind. Est. Wrexham LL 139UZ **United Kingdom**





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Manufacturer: Guided Ultrasonics Limited

Wavemaker House

3 Brentwaters Business Park

The Ham Brentford TW8 8HQ United Kingdom

Manufacturing locations:

Guided Ultrasonics Limited

Wavemaker House

3 Brentwaters Business Park

The Ham Brentford TW8 8HQ

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

This Certificate **does not** indicate compliance with 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 Reports:

GB/EXV/ExTR21.0070/00 GB/EXV/ExTR25.0049/00

Quality Assessment Report:

GB/BAS/QAR14.0014/07



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The "gPIMS® Ex Wifi Field Control Unit" (referred to herein as the "FCU") is intended for fixed installation in explosive gas environments identified as IECEx Zone 0, with gas group IIB and temperature classification T4. The FCU is designed to be connected to the Guided Ultrasonics gPIMS Ex HT Sensor (referred to herein as the "Sensor") which is an ultrasonic transducer which uses ultrasonic reflectometry for detection and measurement of pipe corrosion. The Sensor has a 55-way male connector which mates with the female 55-way connector on the FCU. Through this intrinsically safe connector the Sensor can be interrogated by the FCU which transfers the data through the its included WiFi antenna back to its user. The FCU is supplied with two possible WiFi antenna's which are included as part of this approval:

- Mobile mark SCR12-2400
- OSCAR41/X/NTYPEF/S/S/29

The FCU is powered using a battery pack which contains four SAFT LS33600 Lithium-Thionyl Chloride (primary) cells. The battery pack is manufactured in two possible variants:

- 1. GP-BATTM-EX-4AX
- 2. GP-BATTM-EX-4D

Item 1 is a complete battery pack with permanently connected cells (soldered). When item 1 is spent it a replacement with the same part number must be sourced from the manufacturer. Item 2 is identical except it has battery spring contacts to allow individual cells to be replaced (See CONDITON 1). Each battery pack is encapsulated with intrinsically safe circuitry. The device is intended to be used primarily with the following suitably approved sensors, however It is also possible to connect any suitably approved sensors which match the following limiting parameters in Table 1.

Guided Ultrasonics gPIMS Ex HT Sensor IECEx EXV 23.0062X, ExVeritas 23ATEX1732X ExVeritas 23UKEX1733X Guided Ultrasonics gPIMS Sensor BAS21UKEX0567X Bassefa14ATEX0067X IECEX BAS 14.0031X

Table 1		
Parameter	Signal pins	Logic pins
Uo	7.8 V	5.88 V
lo	471.69 mA	139.75 mA
Po	919.81 mW	205.44 mW
Со	67.33 µF	937.33 μF
Lo	639.21 µH	7.29 mH

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1. When replacing cells within GP-BATTM-EX-4D the user shall always use SAFT LS33600, Primary Lithium Thionyl Chloride, 61.2 Wh, D-size cells.
- 2. The Souriau connector, and Mobile mark SCR12-2400 antenna exceeds the material limit placed on Aluminium for EPL Ga. Consequently, any impact or friction against this part presents an ignition risk. The user shall consider the suitability of the equipment for their application.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Too many to mention. Please refer to report.