1 **UNITED KINGDOM CONFORMITY ASSESSMENT**

UK TYPE EXAMINATION CERTIFICATE

2 Product Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1

3 Certificate Number: ExVeritas 23UKEX1733X Issue: 1

4 Product: gPIMS Ex HT Sensor (CM R2P-**in-HT-EX-**mm)

5 Manufacturer: Guided Ultrasonics Ltd.

6 Address: Unit 3, Brentwater Business Park, Wavemaker House, The Ham, Brentford, TW8 8HQ, United Kingdom.

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

8 ExVeritas Limited Approved Body number 2585, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0: 2018 IEC 60079-11:2023

Except in respect of those requirements listed at section 16 of the schedule to this certificate.

10 If the sign “X” is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the equipment shall include the following:

II 1G Ex ia IIB T* Ga
Ta = -40°C to +70°C

UKAS PRODUCT CERTIFICATION
No. 8613

On behalf of ExVeritas

S Clarke CEng MSc FIET
Managing Director

Schedule

13 Description of Product

The gPIMS Ex HT Sensor (CM R2P-**in-HT-EX-**mm) is intended for fixed installation in explosive gas atmospheres identified as IECEx Zone 0, and ATEX Category 1G with gas subgroup IIB, and temperature classification dependent upon the process or ambient temperature. The device uses ultrasonic reflectometry to make an acoustic inspection of pipes for the purpose of defect detection and measurement (for example corrosion monitoring). Data gathered during the measurement is sent through a cable (with a length that is within the range of 3 m to 50 m) to either a piece of suitably selected associated apparatus (see table 2), or to the approved GP-FCU-WIFI-EX-CM (See approvals ExVeritas 21 ATEX 0947 X, ExVeritas, 21 UKEX 0949 X and IECEx EXV 21.0049 X).

Each transducer assembly is a flexible collar which is wrapped around the workpiece. A single collar can completely encircle a pipe diameter in the range of 50 mm to 600 mm (2 inches to 24 inches), however for pipe diameters in range of 660 mm to 1220 mm (26 inches to 48 inches), two independent sensors can be banded together to make a single assembly. In this case the manufacturer supplies a combined ring enclosure (Part number GP-1468) to make the appropriate electronic connections.

Depending on the application the device is either manufactured for “high” or “medium” frequency applications. The sensor can be manufactured with a variable width spacing between the sensing elements. Both manufacturing aspects are reflected in the part naming convention below.

Part number disambiguation:

CM R2P- ** In-HT-EX- ** mm

Sensor size

Spacing

Spacing options (given in millimetres):
16, 21, 24, 32.

Sensor size options (given in Inches):
2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24.

The temperature class is dependent upon the temperature of the process or upper ambient which can reach as high as +200°C. Consequently the T-class is assigned based on the table below.

Table 1: Temperature classification

Temperature classification	Process temperature
T4	114 °C
T3	179 °C
T2	200 °C

Table 2: Limiting parameters

Meas.	Signal pins	Logic pins
Ui	8.3 V	5.88 V
Ii	503 mA	143.4 mA
Pi	1044 mW	208 mW
Ci	50.4 nF	6.74 nF
Li	31 µH	70 µH

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report	Date	Issue	Comment
R4906/A/1	26/NOV/2024	0	Initial issue of the Prime Certificate
R6284/A/1	23/OCT/2025	1	The manufacturer has re-named the technical documentation which affects the technical documentation table in the previous ExTR. Since there has been no technical changes, the type of protection remains unchanged.

Continued overleaf.

Schedule

15 Special Conditions for Safe Use

1. The surface of the enclosure is susceptible to electrostatic accumulation. To avoid the risk of incendiary discharges from this non-metallic part, the device shall not be installed in locations where such an accumulation may occur. Additionally, cleaning of this surface shall only be permitted with a damp cloth.
2. The Souriau-type connector includes a fastener which contains Aluminium alloy. This alloy exceeds the material limits from IEC 60079-0:2017 Cl, 8.3. and therefore is an ignition hazard. The device shall be installed so that the possibility of impact or friction on this part is not possible.

16 Essential Health and Safety Requirements (Regulations Schedule 1)

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.1 The manufacturer shall inform ExVeritas of any modifications to the design of the product described by this schedule.