



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx BAS 14.0031X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2014-11-07
Applicant: **Guided Ultrasonics Limited**
Reynard Mills Business Park
Windmill Road
Brentford
TW8 9LY
United Kingdom
Equipment: **gPims Sensor Types R2P-**in-EX-**mm**
Optional accessory:
Type of Protection: **Intrinsic Safety**
Marking: **Ex ia IIB T4 Ga (-40°C ≤ Ta ≤ +90°C)**

Approved for issue on behalf of the IECEx
Certification Body:

R. Sinclair

Position:

General Manager

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.



Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom





IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 14.0031X**

Page 2 of 3

Date of issue: 2014-11-07

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Manufacturer: **Guided Ultrasonics Limited**
Wavemaker House
3 Brentwaters Business Park
The Ham
Brentford
TW8 8HQ
United Kingdom

Manufacturing
locations:

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 60079-0:2011](#) 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 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/BAS/ExTR13.0141/00](#)

Quality Assessment Report:

[GB/BAS/QAR14.0014/00](#)



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Page 3 of 3

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The gPims Sensor Types R2P-**-in-EX-**-mm (** represents numeric type number related to the size of the sensor) is a permanently installed monitoring system which utilises ultrasonic guide waves, sent along the length of a pipe, to non-destructively test pipes for defects or other pipe features by detecting changes in the cross section and/or stiffness of the pipe.

The gPims Sensor Types R2P-**-in-EX-**-mm consist of a band, that is placed around the pipe which houses the piezo electric crystals, and a permanently attached cable upto 50m long. The band uses piezoelectric crystals to induce ultrasonic waves in to the pipe and uses the same crystals to listen for any reflected waves. The sensor is connected to the monitoring equipment via an interface which is located in the safe area.

Input Parameters

Signal Pins (A, B, Y, D, F, b, H, J, K, L, h, N, R, k, T, U) each w.r.t GND (W, X, r, Z, a, t, c, d, f, g, x, l, z, m, n)

$U_i = \pm 18V$ $C_i = 23nF$

$I_i = 127mA$ $L_i = 31\mu H$

$P_i = 569mW$

Logic Pins (BB, CC, DD, EE, GG, HH) combined w.r.t. GND (FF)

$U_i = 5.88V$ $C_i = 6.7nF$

$I_i = 141mA$ $L_i = 70\mu H$

$P_i = 208mW$

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1) Care must be taken when installing the gPims sensor to ensure that it is protected from any situations that could cause a build-up of static charge. The gPims sensor must not be installed into locations in which it could come into contact with, through normal or abnormal circumstances, fast moving dust laden air/gas or non-conductive fluids. The gPims sensor must be cleaned only with a damp cloth.
- 2) The locking nut on the equipment connector is manufactured from aluminium alloy, this part of the equipment must be protected from impact or abrasion if located in an area classified Zone 0 or 1