



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 BAS 15.0083X** issue No.: **0** [Certificate history:](#)

Status: **Current**

Date of Issue: **2016-06-09** Page 1 of 3

Applicant: **3-Sci Limited.**
Merlin House
Fareham Innovation Centre
4 Meteor Way
Lee-on-the-Solent
PO13 9FU
United Kingdom

Electrical Apparatus: **Wireless Corrosion Monitoring System**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Wireless Unit:- Ex ib IIC T4 Gb (Ta = -40°C to +70°C)**
Ultrasonic Sensor:- Ex ib IIC T6 Gb (Ta = -40°C to +85°C) (see schedule)

*Approved for issue on behalf of the IECEx
Certification Body:*

R. Sinclair *PP DIBREANLEY*

Position: Technical Manager

Signature:
(for printed version)

R. Sinclair

9/6/16

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:

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





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Manufacturer: **3-Sci Ltd.**
Merlin House
Fareham Innovation Centre
4 Meteor Way
Lee-on-the-Solent
PO13 9FU
United Kingdom

Additional Manufacturing location
(s):

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 electrical 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/BAS/ExTR15.0199/00](#)

Quality Assessment Report:

[GB/BAS/QAR16.0010/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Wireless Corrosion Monitor is self-contained battery powered equipment comprising a battery powered unit mounted away from pipework and an Ultrasonic Sensor that is attached to a process pipe or vessel.

Power is supplied from three Lithium Thionyl Chloride cells to the Wireless Unit that is encapsulated inside a GRP enclosure. The sensor measures the thickness of the metal surface to which it is attached, and the processed signal is output via a low power radio transmitter. User connections permit a passive device such as a thermistor to be connected in order for the temperature of the pipe work to be monitored.

All connections to the Wireless Unit are via connectors mounted on the sides of the GRP enclosure.

Further information regarding the use of the Ultrasonic Sensor with external heat sources is in the Condition of Certification.

The component certificates referred to during the assessment were:-

- Abtech BPGC6 enclosure as certified under IECEx SIR 06.0086U using IEC 60079-0 ed.6, IEC 60079-7 ed.4, IEC 60079-11 ed.6, IEC 60079-26 ed.2 & IEC 60079-31 ed.1.

- Rolec polyKOM PK121 enclosure as certified under IECEx KEM 08.0003U using IEC 60079-0 ed.4, IEC 6007-7 ed.4, IEC 61241-0 ed.1 & IEC 61241-1 ed.1.

Terminal Parameters - Connector J9 – Temperature Sensor

$U_o = 11.7V$

$I_o = 3.1mA$

$P_o = 7.4mW$

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The Ultrasonic Sensor is considered to have negligible temperature rise and is assessed for temperature class T6 in ambient temperatures of -40° to $+85^{\circ}C$. It is considered not to add to any surface temperature ignition risks that are already present and may be used when attached to local heat sources of up to $+200^{\circ}C$ as long as the effect on the temperature class is taken into account.