



# 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](http://www.iecex.com)

Certificate No.: IECEx CML 17.0172X

Issue No: 0

Certificate history:

[Issue No. 0 \(2018-01-08\)](#)

Status: **Current**

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Date of Issue: **2018-01-08**

Applicant: **Sensor Networks, Inc**  
176 Technology Drive  
Suite 500  
Boalsburg, PA 16827  
**United States of America**

Equipment: **smartPIMS**

*Optional accessory:*

Type of Protection: **increased safety, non-arcing**

Marking:

Anaylink antenna option: Ex ec IIB T4 Gc

Laird antenna option: Ex ec IIC T4 Gc

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

D R Stubbings MIET

*Position:*

Technical Director

*Signature:  
(for printed version)*

*Date:*

2018-01-18

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:

**Certification Management Limited**  
Unit 1, Newport Business Park  
New Port Road  
Ellesmere Port, CH65 4LZ  
United Kingdom





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Manufacturer: **Sensor Networks, Inc**  
176 Technology Drive  
Suite 500  
Boalsburg, PA 16827  
**United States of America**

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 60079-7 : 2015** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

*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/CML/ExTR17.0216/00](#)

Quality Assessment Report:

[GB/CML/QAR17.0028/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The smartPIMS corrosion/erosion monitoring system measures the wall thickness of industrial components such as pipes and pressure vessels. The wall thickness is measured by up to 16 ultrasonic transducers which are directly connected to the signal conditioning boards and transmitter, all mounted inside an aluminium, flameproof enclosure.

The smartPIMS is either battery-powered by two (2), Lithium-Thionyl-Chloride, Primary D-Cell batteries or a user-provided, separately-certified 10-20 Vdc power supply. The communications from the smartPIMS transmitter is either wireless (cellular network) or Modbus (wired).

The antenna is threaded into one of the entries with the sensors and/or power connections are routed through the other entry. The antenna uses a threaded bushing/reducer which is mounted and sealed with RTV at the factory. The sensors are fitted through a separately-certified cable gland at the factory – for the battery powered option. When the external power supply option is selected, the end user is responsible for selecting and installing an appropriate cable gland which provides the IP66 rating.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

- An appropriately-certified Ex e or Ex nA cable gland shall be used which provides the ingress protection rating of IP66.
- From IECEx UL 08.0005U (Adalet enclosure): To minimize the risk of electrostatic charge, the smartPIMS shall be grounded and installed so that accidental discharge shall not occur.
- For the external power supply option only: The 10-30 V rated supply shall be protected such that transients are limited to a maximum of 90 V; no such protection is required for the sensor conductors. No additional protection is required if an SELV or PELV power supply is used as the 10-30 Vdc source.
- For the external power supply option only: The power connection shall be routed through separate cable from the sensors.