



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

Certificate No.: **IECEx BAS 17.0052X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 2 [Issue 1 \(2018-10-16\)](#)  
[Issue 0 \(2017-07-06\)](#)  
Date of Issue: 2020-11-19  
Applicant: **AVT Reliability Ltd**  
Unit 2 Easter Court  
Europa Boulevard  
Warrington  
Cheshire  
WA5 7ZB  
**United Kingdom**  
Equipment: **Machine Sentry Mobile Ex**  
Optional accessory:  
Type of Protection: **Intrinsic Safety**  
Marking: **Ex ib IIB T4 Gb**  
**Ex ic IIC T4 Gc**

Approved for issue on behalf of the IECEx  
Certification Body:

**R.S. Sinclair**

Position:

**Technical Manager**

Signature:  
(for printed version)

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 [www.iecex.com](http://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**





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Manufacturer: **AVT Reliability Ltd**  
2 Easter Court  
Europa Boulevard  
Warrington  
Cheshire  
WA5 7ZB  
**United Kingdom**

Additional  
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 Reports:

[GB/BAS/ExTR17.0127/00](#)

[GB/BAS/ExTR18.0227/00](#)

[GB/BAS/ExTR20.0134/00](#)

Quality Assessment Report:

[GB/BAS/QAR17.0012/02](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The Machine Sentry Mobile Ex is a portable battery powered measurement device designed to measure the vibration of equipment located in the hazardous area.

The equipment uses a permanent magnet to attach to the equipment and using accelerometers measure the vibrations in 3-axis of measurement. The measurement information is then transmitted using Bluetooth communications to suitably certified data acquisition equipment. The equipment also contains a built-in infra-red thermometer to provide temperature information on the equipment to which it is connected.

The Machine Sentry Mobile Ex can also to be connected to a suitably certified external Accelerometer device via the supplied co-axial cable adapter which plugs into the external connection plug on top of the equipment. The equipment provides power to the connected accelerometer and allows measurements to be communicated via the Bluetooth communication link alongside its own measurements.

The equipment comprises four printed circuit boards (PCB) which are encapsulated and sealed within a cast aluminium enclosure with a polycarbonate window on the top of the device to permit Bluetooth communications. The equipment is powered from a lithium-ion rechargeable cell mounted inside the equipment which is designed to only be charged in the non-hazardous area via the external connector on top of the equipment.

See Annex for electrical parameters and further information.

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

1. The equipment must only be charged in the non-hazardous area.
2. The equipment is not capable of passing the 500Vr.m.s dielectric strength test. This must be taken into account during installation and use.



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

### Variation 2.1

To permit the fitting of alternative battery, inductor and Bluetooth module in the equipment, and minor mechanical and drawing changes not affecting the previous test and assessment.

ExTR: **GB/BAS/ExTR20.0134/00**

File Reference: **20/0414**