

**UK Type Examination Certificate CML 23UKEX2217X Issue 0****United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **Machine Sentry Mobile**
- 3 Manufacturer **AV Technology Limited T/A AVT Reliability**
- 4 Address **Unit 2, Easter Court, Europa  
Boulevard, Warrington, WA5 7ZB,  
United Kingdom**

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, 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), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.

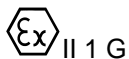
8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

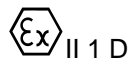
EN 60079-11:2012

10 The equipment shall be marked with the following:



Ex ia IIC T4 Ga

Ta= -20°C to +60°C



Ex ia IIC T135°C Da

Ta= -20°C to +60°C





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## 11 Description

The Machine Sentry Mobile (MSM2) is a battery-powered measurement device to monitor the vibration of equipment located in a hazardous area. The apparatus is permanently fitted to the equipment using adhesive or a mounting stud. Alternatively, as a temporary fixing, a permanent magnet may be used.

Both of the models consist of a stainless-steel tube with a polycarbonate cap for wireless data transmission via Bluetooth. This is screwed onto the base unit that holds the potted circuit board and cell.

The Machine Sentry Mobile (MSM2) is powered from a single EVE 26500 or Tadiran SL2770/TL2200/TL-5920 or a Saft M52EX primary cell. The cells are not intended to be replaced in the hazardous area.

Both models have a Limo connector for connection to hardwire sensors, with the following parameters:

It has the following safety parameters:

Uo: 23.1 V  
Io: 0.023 A  
Po: 0.135 W  
Co: 165nF  
Lo: 73 mH  
Ci: 0  
Li: 0

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	06 Jul 2023	R16420A/00	Prime Release

Note: Drawings that describe the equipment are listed in the Annex.

## 13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.



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#### **14 Specific Conditions of Use**

The following conditions relate to safe installation and/or use of the equipment.

- i. **WARNING:** use only EVE ER26500, SAFT M32EX or Tadiran SL2770/TL2200/TL-5920 batteries
- ii. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This is particularly important if the equipment is installed in a zone 0 location. In addition, the equipment shall only be cleaned with a damp cloth.

## Certificate Annex

**Certificate Number** CML 23UKEX 2217X  
**Equipment** Machine Sentry Mobile  
**Manufacturer** AV Technology Limited T/A AVT Reliability



The following documents describe the equipment defined in this certificate:

### Issue 0

Drawing No	Sheets	Rev	Approved date	Title
MS-MOBILE-ASSEMBLY	1 to 3	A	03 Jul 2023	Modular Mobile Assembly Instructions
MS-MOBILER-PRO-EBS	1 to 7	A	03 Jul 2023	Modular Mobile/PRO Schematic
MS-PRO-ASSEMBLY	1 to 3	A	03 Jul 2023	Modular Fixed Pro Assembly Instructions
MS-CAP	1 of 1	A	03 Jul 2023	Bluetooth Cap
Ms-Mobile-PRO-LBL	1 to 2	A	03 Jul 2023	Modular Fixed Sensor Marking: Case etching