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Eurofins E&E North America Equipment Certification Report	
Product description.....:	Pressure and temperature measurement device
Model/type reference.....:	System Sentry
E-file + Report Number .....:	E115629 Report R17611/00
MET Project Number.....:	132450
Ordinary Location Compliance.....:	CML project PRJ-17611
IECEx certificate & report upon which ND evaluation is based .....:	IECEx CML 23.0079X GB/CML/ExTR23.0107/00
Compiled by + signature .....:	Nehemya Cohen 
Reviewed by + signature.....:	Mike Hayes 
Approval Date.....:	July 29, 2024
Applicant's name .....:	AV Technology Limited T/A AVT Reliability
Address .....:	Unit 2, Easter Court Europa Boulevard, Warrington, WA5 7ZB, United Kingdom
Manufacturer's name.....:	Same as applicant above
Address .....:	Same as applicant above
Certification Body .....:	Eurofins E&E North America
Address .....:	914 W. Patapsco Ave., Baltimore, MD 21230, USA
Prepared By.....:	Eurofins E&E CML Limited
Address .....:	Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, UK
Certification Scope .....:	☑ Type Verification ☐ Unit Verification ☐ LPC Verification ☑ NRTL Listing ☑ MET-C Listing ☐ MET Listing ☐ MET Listing for Canada ☐ MET Recognition ☐ MET-C Recognition ☐ MET Classification ☐ MET-C Classification
Standards associated with this document package.....:	UL 60079-0 (Ed 7) 2019 rev 2020 UL 60079-11 (Ed 6) 2013 rev 2018 UL 61010-1 (Ed 3) 2012 rev 2023 ---- CSA 60079-0 (Ed 4)2019 CSA 60079-11 (Ed 2) 2014 R 2023 CSA 61010-1 (Ed 3) 2012
This certification has been granted under a System 3 program as defined in ISO/IEC 17067. For amendments, this report is based upon the initial and all previous issued reports, with modifications as described in the change table below.	

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Change Record				
Change Number	**Description**	**Approval Date**	**Project Number**	**Amendment Engineer**
--	Initial Report	--	--	--
R1	Corrected reference from SAFT M32EX to SAFT M52EX	--	--	--

Equipment Specifications		
Hazardous Location Marking Code	:	U.S. and Canada Class I Division 1 Group A, B, C, D T4 Class II Division 1 Group E-G T4
		U.S. / Canada Class I Zone 0 AEx ia IIC T4 Ga / Ex ia IIC T4 Ga Zone 20 AEx ia IIIC T135°C Da / Ex ia IIIC T135°C Da
Entity Parameters	:	N/A
Rating	:	3.6V battery powered
Installation and use classification	:	Stationary
Ingress protection per IEC 60529	:	IP20
Ingress protection per 60079-0 (preconditioning)	:	N/A
Ingress protection per UL 50	:	N/A
Rated ambient temperature range (°C)		-20°C ≤ Tamb ≤ +60°C

General product information
Product Description:
The System Sentry is a pressure and temperature measurement device for use with a plan 53B mechanical seal vessel. The equipment consists 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 System Sentry 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.
Model Nomenclature:
N/A – One model only
Model Differences:
N/A – One model only
Conditions of Acceptability:
Not Applicable
Specific Conditions of Use:
Final installation and use shall ensure the following: 1. WARNING: use only EVE ER26500, SAFT M52EX or Tadiran SL2770/TL2200/TL-5920 batteries. These cells must only be changed in the safe area. 2. 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

Engineering Considerations (Not For Field Representative's Use):

Compliance Strategy

The product has been evaluated to the UL/CSA versions of the 60079 series standards for which the product is IECEx certified.

Additional Notes

None

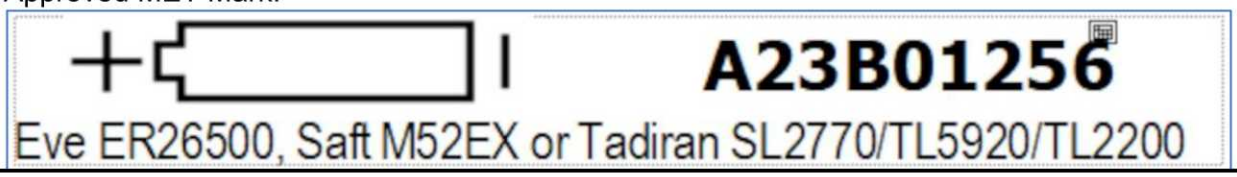
Markings

Marking Details:

Etching, molding, die-stamping, silk-screening, stamped-, or etched-metal labels secured by rivets or screws are considered permanent. Recognized/Certified Component, Marking and Labelling Systems, and/or labels tested and deemed suitable for the surface to which it is applied is also considered permanent.
Per the Canadian Electrical Code described in CSA C22.2 No. 0 General Requirements, Canadian product certification requires warning/cautionary markings in both English and French languages. It is the Applicant's responsibility to provide the listed Bilingual Markings shown below in accordance with the Canadian regulatory requirements.
Each product is to be permanently marked with the following information:

a. The MET Mark (refer to MET Applicant Contract), with the applicant/listee name or alternate listee name as identified within this report, trade name or trade mark, product model number, and a date of manufacture or serial number.

b. Method of applying the MET Mark:
☒ Direct Imprinting
☐ Purchasing Labels from Eurofins E&E NA
Approved MET Mark:



Markings

Company Name and Address

US HAZLOC Information

EU/UK/IECEx Certification Information

Manual/Service Instructions

The following information must be present in the manual

- Recapitulation of the markings
- Specific Conditions of Use

Additional Information

Note to Field Representative

- Annual Reverification
  None

Alternate Listee Information

None

Applicant's Responsibilities

Product Modifications:

This product was tested for use in **Hazardous Locations**.
The manufacturer **may not** make any modifications to the construction detailed within this report without prior approval of Eurofins E&E NA, Inc.

Project Amendments:

For any changes related to product construction, manufacturing locations, if the product is intended to be marketed/sold under an alternate name or model number than that originally listed, or any issues which would require notification or change in the status of this file, please complete the form, and return to Eurofins E&E NA following the instructions provided on the form.

For your convenience a Project Amendment Request (PAR) form is available for download at http://corp.metlabs.com/safetyreq/ Alternatively, please provide it to your local Eurofins office or Eurofins Partner Representative.

If you are terminating or temporarily suspending production of this product for an extended period, please send a letter on company letterhead to:

Eurofins E&E NA, Inc.
Attn: Follow Up Services Department
914 West Patapsco Avenue
Baltimore, Maryland 21230
USA
Fax: (410) 354-3313

Manufacturing and Production-Line Tests and Documentation

This product is exempt from production line testing.

Technical Documents - Hazardous Location Compliance			
Title:	Drawing No.:	Rev. Level:	Date:
MS-Cap	MS-CAP	A	06/11/2021
MS-System-Sentry	SS-Assembly	A	03/20/2023
System Sentry Sensor Marking: Case Etching	SS-Marking	B	05/22/2024
SS_EBS	SS-Schematics	A	03/20/2023

Critical Components						
Item No.	Description	Manufacturer	Mfr. Model / Part No.	Technical Details	Standard (Edition / year)	Mark(s) of Conformity
1.	Cell	Saft	M52EX	3V, size C	UL 1642	UR MH61234
2.	Alternate cell	EvE	26500	3.6V, size C	UL 1642	UR MH28717
3.	Alternate cell	Tadiran	SL2770	3.6V, size C	UL 1642	UR MH12827
4.	Alternate cell	Tadiran	TL2200 / TL-5920	3.6V, size C	UL 1642	UR MH12193
5.	Fuse F1	Kyocera	F0603G0R06FNTR	≥ 0.5 mm pad spacing	n/a	n/a

Photos

Photos

Testing Considerations

A sample of the System Sentry was subjected to the following test program with satisfactory results. All tests were conducted in accordance with

- UL 60079-0 (Ed 7) 2019 rev 2020
- UL 60079-11 (Ed 6) 2013 rev 2018
- UL 61010-1 (Ed 3) 2012 rev 2023
- CSA 60079-0 (Ed 4)2019
- CSA 60079-11 (Ed 2) 2014 R 2023
- CSA 61010-1 (Ed 3) 2012

Only these tests were considered necessary due to engineering considerations. Detailed test results are on file at MET Laboratories under the referenced project number.

Standard(s)	Test(s)	Project #	Testing Location
IEC 60079-0:2017 Ed. 7 IEC 60079-11:2011 Ed. 6	Refer to IECEx ExTR GB/CML/ExTR23.0107/00 §5	PRJ-16433	Refer to IECEx ExTR GB/CML/ExTR23.0107/00 §5

