



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 18ATEX2249X** Issue: **2**

4 Equipment: **Syscor Tracker**

5 Applicant: **Syscor Controls & Automation Inc.**

6 Address: **Suite 201-60, Bastion Square
Victoria, BC V8W 1J2
Canada**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0: 2018 EN 60079-11:2012

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 1G

Ex ia IIB T4 Ga

Ta = -40°C to +60°C

Signed: M Halliwell

Title: Director of Operations



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SCHEDULE

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Issue 2

13 DESCRIPTION OF EQUIPMENT

The Syscor Tracker comprises of a power and control unit (PCU) and sensor probes (up to 2 optional probes). The PCU has an optional inclinometer and accelerometer. Transducer data from the PCU and probes are transmitted wirelessly via the PCU to a monitoring system.

Sensor probe transducer options are selected to measure:

Temperature

Liquid Height: the height of conductive fluids.

Acceleration: vibration experienced along 3 axes.

Hydrocarbons: an organic compound consisting of hydrogen and carbon.

The PCU is powered by a battery pack comprising of 2 lithium ion D-cells in series each with voltage rating of 3.6V (in total 7.2V). It also can be powered by an alternate battery pack that comprises of 2 strings with 2 Li ion D-cells in series and a single printed circuit board that is fully encapsulated within the plastic enclosure. A probe receives power from the PCU and communicates to the PCU through a wired interface. The PCU is fully self-contained with no external power connections.

The PCU communicates using a WirelessHART interface to the monitoring system. The PCU has a HART maintenance port for the field communicator (Uo-1.9V and Io-32 μ A) which can be used only in a non-explosive atmosphere. This has been reinforced as a condition of acceptability under the product section of this report.

The PCU incorporates one wireless radio, used to communicate via WirelessHART with the site network.

The stainless steel PCU housing contains the electronics, terminals and an integrated non-metallic antenna housing that allows WirelessHART transmission.

Following are the entity parameters:

PCU output	HCD input	HCDW Input
Uo = 6.51V	Ui = 6.51V	Ui = 6.51V
Io = 4.34A	Ii = 4.34A	Ii = 4.34A
Po = 0.95W	Pi = 0.95W	Pi = 0.95W
Co = 222.53 μ F	Ci = 52.25 μ F	Ci = 66 μ F
Lo = 7.55 μ H	Li = 0 μ H	Li = 0 μ H

Power and Control Unit (PCU):

Model name: PCU-X¹-X²-X³-X⁴-X⁵

1 – Battery compartment end cap

2 – Inclinometer

3 – Accelerometer

4 – Unused/Reserved

5 – Certification

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Hydrocarbon detector (HCD) sensor probe and Hydrocarbon detector with water level (HCDW) sensor probe:

Model name: HCD-XX¹-XX²-XXXX³-A⁴-XX⁵ and HCDW-XX¹-XX²-XXXX³-A⁴-XX⁵

- 1 – Interface (software protocol)
- 2 – Hydrocarbon detector chemistry selection
- 3 – Cable length
- 4 – Units (of cable length)
- 5 – Certification

Variation 1 - This variation introduced the following changes:

- i. Rename equipment from "Wireless HC Tracker" to "Syscor Tracker".
- ii. Update manufacture name from "Syscor Controls and Automation Inc" to "Syscor Controls & Automation Inc."
- iii. Modifications to the product model code.
- iv. Editorial changes to the Specific Conditions of Use.
- v. Update to drawings not affecting the safety of the equipment.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	15 January 2020	R70185343A	The release of the prime certificate.
1	26 November 2020	R80063937A	Transfer of certificate Sira 18ATEX2249X from Sira Certification Service to CSA Group Netherlands B.V.
2	06 July 2022	R80128229A	The introduction of Variation 1.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 A passive antenna may be supplied by the manufacturer or provided by the customer. Permitted antennas must have <10000mm² plastic surface when connected directly to the enclosure. Antennas connected through an extension cable are not subject to the plastic surface area restriction.
- 15.2 When a non-metallic antenna is connected directly to the enclosure, it is possible that under certain extreme circumstances, the non-metallic antenna may generate an ignition-capable level of electrostatic charge. Therefore, when a non-metallic antenna is connected to the enclosure without the use of an extension cable, the equipment shall be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
- 15.3 The HART maintenance port in the PCU shall not be used in the hazardous area. When used in the non-hazardous area, a battery-powered HART Field Communicator with intrinsic safety approvals may be used.

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16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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Certificate Annexe



Certificate Number: Sira 18ATEX2249X

Equipment: Syscor Tracker

Applicant: Syscor Controls & Automation Inc.

Issue 0

Drawing no.	Sheets	Rev.	Stamp (date)	Description
000931	1 to 2	1.5.0	21 Mar 19	Entity drawing (PCU and HCD/HCDW)
000985	1 of 1	1.0.1	21 Mar 19	Installation drawing (PCU and HCD/HCDW)
000695	1 of 1	1.1.0	01 May 19	Body (housing)
000696	1 of 1	1.1.0	01 May 19	Body cover/End cap
000697	1 to 2	1.1.0	21 Mar 19	General Assembly Exploded View
000901	1 to 2	1.1.0	21 Mar 19	Body cover/end cap extended
000874	1 of 1	1.7.1	21 Mar 19	Label
000686	1 to 4	4.6.4	21 Mar 19	Schematic
000686	1 to 2	4.6.4	21 Mar 19	BOM
000687	1 to 7	4.6.3	21 Mar 19	PCBA Layout
000994	1 of 1	1.0.0	01 May 19	PCU Potting
000688	1 of 1	3.0.1	01 May 19	Battery Node (Electrical drawing)
000688	1 of 1	3.0.1	01 May 19	Battery Node (Mechanical drawing)
000688	1 of 1	3.0.1	01 May 19	Battery Node (BOM)
000689	1 to 2	3.0.1	01 May 19	Battery PCBA
000841	1 to 2	1.0.5	01 May 19	General Assembly Exploded View
000849	1 of 1	1.0.3	01 May 19	Label
000869	1 of 1	1.0.0	01 May 19	Harness
000902	1 to 4	1.0.4	01 May 19	General Assembly Exploded View
000905	1 of 1	1.0.5	21 Mar 19	Schematic
000905	1 of 1	1.0.5	21 Mar 19	BOM
000906	1 to 5	1.0.3	21 Mar 19	PCB Layout
000912	1 of 1	1.0.3	01 May 19	Label
000690	1 of 1	5.0.3	21 Mar 19	Schematics
000690	1 to 2	5.0.3	21 Mar 19	BOM
000691	1 to 7	5.0.1	21 Mar 19	PCBA Layout
000692	1 of 1	1.1.0	21 Mar 19	Body (housing)
000693	1 of 1	1.1.0	21 Mar 19	End cap
000694	1 of 1	1.1.0	21 Mar 19	Drilled cap
000698	1 of 1	1.1.0	21 Mar 19	strain relief
000802	1 to 2	1.0.2	21 Mar 19	General Assembly Exploded View
000863	1 of 1	1.7.1	21 Mar 19	label
000993	1 of 1	1.0.0	01 May 19	HCD Potting
000875	1 to 2	3.0.2	21 Mar 19	Schematic
000875	1 of 1	3.0.2	21 Mar 19	BOM
000876	1 to 7	3.0.1	01 May 19	PCBA layout
000877	1 of 1	1.1.0	21 Mar 19	Vent Tube
000878	1 to 2	1.0.2	21 Mar 19	General Assembly Exploded View
000879	1 of 1	1.6.1	21 Mar 19	Label
000992	1 of 1	1.0.1	01 May 19	HCDW Potting

Issue 1 - No new drawings were introduced.

Issue 2

Drawing	Sheets	Rev.	Stamp (date)	Description
000931	1 to 2	1.6.0	06 Jun 22	Entity drawing (PCU and HCD/HCDW)
000697-EU	1 to 2	1.0.0	06 Jun 22	General Assembly Exploded View
001126	1 of 1	1.0.0	06 Jun 22	Label – PCU – Europe

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Certificate Annexe



Certificate Number: Sira 18ATEX2249X

Equipment: Syscor Tracker

Applicant: Syscor Controls & Automation Inc.

Drawing	Sheets	Rev.	Stamp (date)	Description
000686	1 to 4	4.6.8	06 Jun 22	Schematic
000686	1 to 2	4.6.8	06 Jun 22	BOM
000690	1 of 1	6.2.2	06 Jun 22	Schematics
000690	1 of 1	6.2.2	06 Jun 22	BOM
000691	1 of 1	6.2.1	06 Jun 22	PCBA Layout
000692	1 of 1	2.0.0	06 Jun 22	Body (housing)
000694	1 of 1	2.0.0	06 Jun 22	Drilled cap
000802-EU	1 of 1	1.0.0	06 Jun 22	General Assembly Exploded View
001127	1 of 1	1.0.0	06 Jun 22	Label – HCD - Europe
000875	1 to 2	4.1.2	06 Jun 22	Schematic
000875	1 of 1	4.1.2	06 Jun 22	BOM
000876	1 of 1	4.1.1	06 Jun 22	PCBA layout
000878-EU	1 to 2	1.0.0	06 Jun 22	General Assembly Exploded View
001128	1 of 1	1.0.0	06 Jun 22	Label – HCDW - Europe

The following drawings no longer form part of the certification documentation:

Drawing	Sheets	Rev.	Stamp (date)	Description
000697	1 to 2	1.1.0	21 Mar 19	General Assembly Exploded View
000874	1 of 1	1.7.1	21 Mar 19	Label
000802	1 to 2	1.0.2	21 Mar 19	General Assembly Exploded View
000863	1 of 1	1.7.1	21 Mar 19	label
000878	1 to 2	1.0.2	21 Mar 19	General Assembly Exploded View
000879	1 of 1	1.6.1	21 Mar 19	Label

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