



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

Certificate No.: **IECEX CSA 18.0031X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2020-01-15)

Status: **Current** Issue No: 1

Date of Issue: 2022-07-06

Applicant: **Syscor Controls & Automation Inc.**
201 - 60 Bastion Square
Victoria BC V8W 1J2
Canada

Equipment: **Syscor Tracker**

Optional accessory:

Type of Protection: **Intrinsic Safety Ex ia**

Marking: **Ex ia IIB T4 Ga**
Ambient range: -40°C to +60°C
Entity parameters as follows:
PCU output: $U_o = 6.51V$, $I_o = 4.34A$, $P_o = 0.95W$, $C_o = 222.53\mu F$, $L_o = 7.55\mu H$
HCD input: $U_i = 6.51V$, $I_i = 4.34A$, $P_i = 0.95W$, $C_i = 52.25\mu F$, $L_i = 0\mu H$
HCDW input: $U_i = 6.51V$, $I_i = 4.34A$, $P_i = 0.95W$, $C_i = 66\mu F$, $L_i = 0\mu H$

Approved for issue on behalf of the IECEx
Certification Body:

Dave Magee

Position:

Senior Director of Operations, Toronto

Signature:
(for printed version)

Date:
(for printed version)

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 or use of this QR Code.



Certificate issued by:

CSA Group
178 Rexdale Boulevard
Toronto, Ontario M9W 1R3
Canada





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Manufacturer: **Syscor Controls & Automation Inc.**
201 - 60 Bastion Square
Victoria BC V8W 1J2
Canada

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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[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:

[CA/CSA/ExTR18.0042/00](#)

[CA/CSA/ExTR18.0042/01](#)

Quality Assessment Report:

[CA/CSA/QAR19.0001/02](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Sycor 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.

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

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

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 communicate 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 wired port for the HART communicator (1.9V and 32µA) which can be used only in a non-explosive atmosphere. 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.

SPECIFIC CONDITIONS OF USE: YES as shown below:

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

Issue 1 – this Issue introduced the following changes:

1. Rename equipment from “Wireless HC Tracker” to “Syscor Tracker”
2. Update manufacture name from “Syscor Controls and Automation Inc” to “Syscor Controls & Automation Inc.”
3. Modifications to the product model code
4. Editorial changes to the Specific Conditions of use
5. Update to drawings not affecting the safety of the equipment