



Certificate of Compliance

Certificate: 1981011

Master Contract: 241576

Project: 80110624

Date Issued: 2022-09-06

Issued To: INFICON AB
Wahlbecksgatan 25, 582 13
Linköping, Ostergotland County, 582 16
Sweden

Attention: Fredrik Enquist

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: Ronald (Ron) Bell
Ronald (Ron) Bell

PRODUCTS

CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations

CLASS 2258 83 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations - CERTIFIED TO U.S. STANDARDS

Ex ia IIC T3 Ga:

Class I, Zone 0, AEx ia IIC T3 Ga:

Hydrogen Leak Detector System; portable, consisting of Model Extrima Detector, battery operated, 11.25 Vnominal (three Lithium-Ion non-field-replaceable Batteries); intrinsically safe and providing intrinsically safe circuits to Model PX50x Probe, via P/N CX21 Connection Cable; $-20\text{ }^{\circ}\text{C} \leq \text{Tamb.} \leq +50\text{ }^{\circ}\text{C}$;
IP 67 (Not verified by CSA).

Note (HAZLOC): the suffix "x" in the PX50x model number denotes minor variations in the physical characteristics of the Probe nozzle (not affecting safety).



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Notes (ORDLOC):

1. The above model is Portable Equipment, Equipment Class III, Pollution Degree 2, Overvoltage Category I.
2. Mode of operation: Continuous
3. Environmental Conditions: Normal and Extended from -20°C to +50°C as specified by manufacturer
4. Rated IP67 for the Enclosure only
5. Approximately 4 kgs.

Conditions of Acceptability (HAZLOC):

- i. Battery Charger must be CSA Certified (or equivalent), with a maximum charging voltage of 12.6V and a maximum charging current of 770 mA.
- ii. As aluminium is used at the accessible surface of this equipment, in the event of rare incidents, ignition sources due to impact and friction sparks could occur. This shall be considered when the Extrima Hydrogen Leak Detector is being installed in locations that specifically require level of protection Ga.
- iii. Not suitable for acetylene / ethylene (welding gas) applications

Conditions of Acceptability (ORDLOC):

- i. If at any time there is a conflict between the system safety provisions and any relevant local (national or regional) requirements, the local requirements always take precedence.
- ii. The equipment is rated IP67 (except for the probe), where the assessment is done under Report No. 1981011.
- iii. The equipment should be used with a charger, considered Limited Power Source or Limited Energy Circuit or NEC Class 2 Power Supply.
- iv. The equipment is supplied with a strap, which the compliance for “Provisions for lifting and carrying” shall be considered at end application.

Conditions of Manufacturer:

- i. The permitted battery pack shall be constructed from 3 series connected SAFT type MP174865IS or type MP174865 or type SAFT MP 174565 is Lithium ion rechargeable cells all encapsulated in Wacker Elastosil RT675.



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APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 60079-0:07 <i>March 2007</i>	Electrical apparatus for explosive gas atmospheres - Part 0: General Requirements
CAN/CSA-C22.2 No. 60079-11:11 (<i>December 2011</i>)	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic Safety "i"
ANSI/UL 60079-0-2009 <i>Fifth Edition (October 21, 2009)</i>	Electrical apparatus for explosive gas atmospheres - Part 0: General Requirements
ANSI/UL 60079-11-2009 <i>Fifth Edition</i>	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic Safety "i"
CAN/CSA-C22.2 No. 61010-1-12 UPD1:2015, UPD2:2016	Safety requirements for electrical equipment for and measurement, Control and laboratory use — Part 1: General requirements
ANSI/UL a61010-1-12 (3 rd edition) UPD1:2015, UPD2: 2016	Safety requirements for electrical Equipment for and Measurement, Control and laboratory use — Part1: General Requirements

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

For the Extrima Detector and CX21 cable the following markings are provided on a min 0.02 in thick metal nameplate, secured to the enclosure with adhesive (Refer to Drawing 1421). For the Probe the following markings are produced by a laser-engraving method printed directly on the side of the aluminum handle:

Extrima Detector

- CSA Monogram with C US Indicator;
- Company name;
- Model number;
- Serial number or Date Code (appears on a separate nameplate);
- Certificate reference (“CSA 2007 1981011 X”)
- Hazardous Location designation for Canada: “Ex ia IIC T3” (In addition to these required markings, the following optional markings may also appear: “Class I, Zone 0, Group IIC”)
- Hazardous Location designation for the US: “Class I, Zone 0 AEx ia IIC T3”



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- Ambient Temperature (“Ta = -20 Deg. C to + 50 Deg. C”)
 - The statement, or equivalent wording: “WARNING – Charge batteries in safe area only.” and "AVERTISSEMENT – Recharger seulement en zone inerte ! " (appears on separate label)
 - The statement: “Charging Um = 12.6 V, max 770 mA”

PX50x Probe

- Model number
- Serial number or date code
- The statement: “Part of Extrima Detector System”
- The statement: “See label on detector for details”

CX21 Connection Cable

- Model number
- The statement: “Part of Extrima Detector System”
- The statement: “See label on detector for details”

Nameplate adhesive label material approval information:

For the Extrima Detector and CX21 cable the markings are provided on a min 0.02 in thick metal nameplate, secured to the enclosure with adhesive (Refer to Drawing 1421). For the Probe the above markings are produced by a laser-engraving method printed directly on the side of the aluminum handle.

Adhesive details: 3M 467MP, approved by UL file number MH17478 for outdoor and indoor use from -35 to +85°C.

Notes:

Products certified under Class C225803, C225883 have been certified under CSA’s ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80110624	2022-09-06	Update report 1981011 for intrinsically safe portable Hydrogen Leak Detector System to add condition of acceptability for acetylene / ethylene applications, and update to latest CSA / UL Standards 60079-0 / 60079-11.
70209859	2019-07-03	Variation to CSA 1981011 (HazLoc report) - Allow new battery types CSA HazLoc: CSA CAN and US CSA Class Number (Canada): 2258-03 PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non - Incendive Systems CSA Class Number (US): 2258-83 PROCESS CONTROL EQUIPMENT- Intrinsically Safe and Non-Incendive - Systems Ambient Temperature: <-??°C> <+??°C> Required to start the project: One unpotted battery pack sample All modified drawings
2531732	2012-07-17	Update to report 1981011 to include changing the company name from Adixen Scandinavia AB to INFICON AB and the change of the probe's base material per test report R25248A/00.
2360055	2010-10-25	Update of report 1981011 to cover minor revisions to the LCD circuitry and to the Bill of Materials.
2308810	2010-06-28	Update of report 1981011 to cover evaluation of probe generation and protection circuitry; alternative probe material; company name change to "Adixen Scandinavia AB".
2016205	2008-03-03	Update of report 1981011 to include the US Certification as AEx ia IIC.
1981011	2007-12-20	Model Extrima Hydrogen Leak Detector with Model PX50x Probe and P/N PX21 Connection Cable; I.S. for Zone 0 Hazardous Locations.