



# Certificate of Compliance

**Certificate:** 70122067

**Master Contract:** 225996

**Project:** 70219777

**Date Issued:** 2019-06-24

**Issued To:** SpectraSensors, Inc.  
11027 Arrow Route  
Rancho Cucamonga, California, 91730  
United States

**Attention:** Paulo Silva

*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:** Sorin Tat  
Sorin Tat



## PRODUCTS

**CLASS 2258 02** PROCESS CONTROL EQUIPMENT – For Hazardous Locations

**Class I, Division 2, Groups B, C and D, IP66**

- Model 2PACK Trace Gas Monitor for Process and Natural Gas Industry assembly which consists of:

-Trace Gas Monitor for Process Streams Analyzer, Model “A” SS2100 (ARM 9 Hardware).

Rated at 100-240Vac, 50/60Hz, 60W Max., or 18-24Vdc, 1.6A max. For use in an ambient temperature range of -20°C to +60°C. Temperature Code T3.

Relay contact ratings for external connection:

Inductive Load Ratings: AC→ 15-250V, 3A N.O. Contact; 1.5A N.C. Contact



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DC→ 13-24V, 1A N.O. Contact; 1A N.C. Contact

Plus

-Carbon Dioxide and /or Moisture monitor for Natural Gas Analyzer model “B” SS2000e (Single Head),  
Input Ratings: 100-240Vac, 50/60Hz, 60W max; 18-24VDC  
Tamb -20°C to +60°C, Temperature Code T3.

Plus

-Sample Conditioning System (SCS) rated max, 240Vac, 400W. Tamb -20°C to +60°C, Temperature Code T3.

- Model 3PACK Trace Gas Monitor for Process and Natural Gas Industry assembly which consists of:

-Trace Gas Monitor for Process Streams Analyzer, Model “A” SS2100 (ARM 9 Hardware).  
Rated at 100-240Vac, 50/60Hz, 60W Max., or 18-24Vdc, 1.6A max. For use in an ambient temperature range of -20°C to +60°C. Temperature Code T3.

Plus

-Carbon Dioxide and /or Moisture monitor for Natural Gas Analyzer Model “B” SS3000e (Dual Head)  
Input Ratings: 100-240Vac, 50/60Hz, 60W max; 18-24VDC  
Tamb -20°C to +60°C, Temperature Code T3.

Plus

-Sample Conditioning System (SCS) rated max. 240Vac, 400W. Tamb -20°C to +60°C , Temperature Code T3.

**CLASS 2258 82 PROCESS CONTROL EQUIPMENT – For Hazardous Locations – Certified to US Standards**

**Class I, Division 2, Groups B, C and D, IP66**  
**Class I, Zone 2 IIB+H<sub>2</sub> T3/T3C**

- Model 2PACK Trace Gas Monitor for Process and Natural Gas Industry assembly which consists of:

-Trace Gas Monitor for Process Streams Analyzer, Model “A” SS2100 (ARM 9 Hardware).  
Rated at 100-240Vac, 50/60Hz, 60W Max., or 18-24Vdc, 1.6A max. For use in an ambient temperature range of -20°C to +60°C. Temperature Code T3.

Relay contact ratings for external connection:

Inductive Load Ratings: AC→ 15-250V, 3A N.O. Contact; 1.5A N.C. Contact



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DC→ 13-24V, 1A N.O. Contact; 1A N.C. Contact

Plus

-Carbon Dioxide and /or Moisture monitor for Natural Gas Analyzer model “B” SS2000e (Single Head),  
Input Ratings: 100-240Vac, 50/60Hz, 60W max; 18-24VDC  
Tamb -20°C to +60°C, Temperature Code T3.

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- Model 3PACK Trace Gas Monitor for Process and Natural Gas Industry assembly which consists of:

-Trace Gas Monitor for Process Streams Analyzer, Model “A” SS2100 (ARM 9 Hardware).  
Rated at 100-240Vac, 50/60Hz, 60W Max., or 18-24Vdc, 1.6A max. For use in an ambient temperature range of -20°C to +60°C. Temperature Code T3.

Plus

-Carbon Dioxide and /or Moisture monitor for Natural Gas Analyzer Model “B” SS3000e (Dual Head)  
Input Ratings: 100-240Vac, 50/60Hz, 60W max; 18-24VDC  
Tamb -20°C to +60°C, Temperature Code T3.

Plus

-Sample Conditioning System (SCS) rated max. 240Vac, 400W. Tamb -20°C to +60°C , Temperature Code T3.

**Condition of Acceptability:**

1. The Analyzer enclosures has Type 4X and IP66 ratings. Refer to the Instruction Operating Manual for construction and installation requirements for maintaining these ratings.
2. The Analyzer enclosures plus Sample Conditioning System assembly has IP66 ratings only. Refer to the Instruction Operating Manual for construction and installation requirements for maintaining these ratings.
3. Interconnection of the Analyzer enclosures and the Cell enclosure shall be accomplished using wiring methods approved for Class I, Division 2 hazardous locations as per the Canadian Electrical Code (CEC) Appendix J and the National Electrical Code (NEC) Article 501.
4. The 100-240 Vac power option is designed for single phase electric power input only. The single pole input fuse protection is not designed for split-phase electric power input.
5. This certification does not assess the connection of any external device to the relay contacts provided by the Model SS2100 trace gas monitor. Exception Solenoid valves provided with the product.
6. A certified device must be connected to the relay contacts provided by Model SS2100. Final installation of this product in the intended application is subject to review by the local authority having jurisdiction.



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## **APPLICABLE REQUIREMENTS**

CAN/CSA C22.2 No. 0-M91	General Requirements – Canadian Electrical Code, Part II
CAN/CSA C22.2 No. 94-M91	Special Purpose Enclosures
CAN/CSA C22.2 No. 213-M1987	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA 61010-1-12	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements - Third Edition
ANSI/UL 61010-1 3 <sup>rd</sup> Ed.	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements - Third Edition
CAN/CSA C22.2 No. 60529:05	Degrees of protection provided by enclosures (IP Code)
ANSI/ISA 12.12.01 - 2007	Non-Incendive Electrical Equipment for Use in Class I and II, Division 2, Class III Divisions 1 and 2 Hazardous (Classified) Locations
UL 50 11 <sup>th</sup> Edition	Enclosures for Electrical Equipment
ANSI/IEC 60529 - 2004	Degrees of protection provided by enclosures (IP Code)

## **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.

The following markings appear on CSA Certified Nameplate material listed below

-Pressure Sensitive “468” Computer in-printable brush serrated aluminum, 5mil to 25mil with screen process printing.

- Submitter’s Name or Master Contract Number 225996
- Model number
- Complete electrical ratings.
- Input terminals identified as Line, Neutral and Ground. Use Earth ground symbol IEC 60417-5017.
- Replacement fuse type and rating marked adjacent to fuse holder.
- Hazardous Locations area marking. Class I, Division 2 Groups B, C and D



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- Temperature Code T3 at 60°C Ambient
- Environmental Ratings: IP66.
- The following caution markings shall appear on the product
  - WARNING - EXPLOSION HAZARD – DO NOT DISCONNECT WHILE CIRCUIT IS ALIVE UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS.
  - AVERTISSEMENT - RISQUE D'EXPLOSION - NE PAS DÉBRANCHER LORSQUE LE CIRCUIT EST VIVANT SAUF SI LA ZONE N'EST PAS DANGEREUSE
  - WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2
  - AVERTISSEMENT - RISQUE D'EXPLOSION - LA SUBSTITUTION DE COMPOSANTS POURRAIT ÊTRE INAPTITUDE À L'ADÉQUATION À LA CLASSE I, SECTION 2
  - WARNING – USE DAMP CLOTH TO CLEAN DISPLAY AND KEYPAD TO AVOID POTENTIAL STATIC ELECTRIC DISCHARGE
  - AVERTISSEMENT – UTILISEZ UN CHIFFON HUMIDE POUR NETTOYER L’AFFICHAGE ET LE CLAVIER AFIN D’ÉVITER UNE ÉVENTUELLE DÉCHARGE ÉLECTRIQUE STATIQUE.
  - CLASS 1 LASER PRODUCT. REFER SERVICING TO MANUFACTURER QUALIFIED PERSONNEL
  - PRODUIT LASER DE CLASSE 1. RÉFÉRER L'ENTRETIEN AU PERSONNEL QUALIFIÉ DU FABRICANT
  - CAUTION – INVISIBLE LASER RADIATION WHEN OPEN. (*on optical head assembly*)
  - ATTENTION - RAYONNEMENT LASER INVISIBLE LORS DE L’OUVERTURE. (sur la tête optique)



## *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**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
70219777	2019-06-24	Project Scope: Update report 70122067 to include three new power supplies tested before and replace some electronic boards with RoHS compliant boards and display (no design change).
000070217650	2019-03-27	Update of CSA report 70122067 to include Class I, Zone 2 IIC on the nameplate markings as per the CEC and NEC allowances.
000070122067	2017-03-24	Original certification of Model 2PACK and 3PACK trace gas monitor assemblies.