



# Certificate of Compliance

**Certificate:** 1569421

**Master Contract:** 225996

**Project:** 80094611

**Date Issued:** 2022-05-20

**Issued To:** Endress+Hauser Optical Analysis 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:** Peter Do  
Peter Do

## **PRODUCTS**

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

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

## **PART A:**

**Class I, Division 2, Groups A, B, C and D;**

Moisture and Carbon Dioxide monitors for Natural Gas - Models SS2000 (Single Head), SS500 (Single Head) and SS3000 (Dual Head). Rated at 100-240Vac, 50/60Hz, 20W (max). May also be used with alternate DC power supplies rated at 9-16Vdc or 18-32Vdc. Temperature Code T3C. For use in an ambient range of -20°C to 50°C.



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**PART B:**

**Class I, Division 2, Groups B, C and D; Type 4X**

Models: SS500e     Single Analyzer System  
 SS2000e     Single Analyzer System  
 SS3000e     Dual Analyzer System

Input Ratings: 100-240Vac, 50/60Hz, 20W max; 18-24VDC, 20W max.  
 Sample System Input ratings: 100 – 240Vac, 50/60Hz, 100W

Temperature Code T3. For use with heaters SpectraSensors P/N 5300002017, P/N 5300002018, P/N 5300002015 and P/N 5300002016. Tamb -20°C to +60°C

Temperature Code T3C without heaters. Tamb -20°C to +60°C

**Conditions of Acceptability:**

- 1) To maintain environment rating of E-Series Analyzer enclosure conduit fittings/cable entry devices must be suitably rated for Type 4X.

**APPLICABLE REQUIREMENTS**

CAN/CSA C22.2 No. 94.2:15	Enclosures for Electrical Equipment, Environmental Considerations
CAN/CSA-C22.2 No. 61010-1-12	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
CSA C22.2 No. 213-17 + UPD 1 (2018) + UPD 2 (2019) + UPD 3 (2021)	Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations
ANSI/UL 50E-2015 <i>Second Edition</i>	Enclosures for Electrical Equipment, Environmental Considerations
ANSI/UL 61010-1-2012 <i>Third Edition</i>	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
ANSI/UL 121201-2021 Ninth Edition	Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations



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## **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.

### **Nameplate adhesive label material approval information:**

The following markings are provided on a CSA Accepted (Class 7921.xx) or UL Recognized to Canadian requirements (PGDQ8) and UL Recognized (PGDQ2) or CSA Accepted to US Standards (Class 7921.8x) adhesive nameplate, which is suitable for indoor and outdoor use on stainless steel, at a maximum service temperature of 60°C or higher. Nameplate is affixed to exterior of the analyzer enclosure.

- Manufacturer's Name "Endress+Hauser Optical Analysis Inc.", or Master Contract Number "225996", adjacent to the CSA mark in lieu of name.
- Model designation: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.
- ISO 60417, Symbol 5031  $\overline{\text{---}}$  adjacent to the DC input terminal rating.
- ISO 60417, Symbol 5032  $\sim$  adjacent to the AC input terminal rating.
- Manufacturing date, or serial number, traceable to year and month of manufacture.
- Hazardous Location designation: As specified in the PRODUCTS section, above. The word "Class" may be abbreviated "CL", the word "Division" may be abbreviated "DIV", and the word "Groups" may be abbreviated "GRP" or "GP".
- Temperature Code T3C, or T3 when used with heater.
- The following optional additional markings may be used: "Class I, Zone 2 Group IIC T3/T3C" (Models SS500/SS2000/SS3000) and "Class I, Zone 2 Group IIB+H2 T3/T3C" (Models SS500e/SS2000e/SS3000e)
- Enclosure Ratings: Type 4X (E-Series Analyzer only)
- The CSA Mark, with or without the "C" and "US" indicators, as shown on the Certificate of Conformity.
- The manufacturing location shall be identified if the equipment can be produced in more than one facility.
- The following words, or suitable equivalent, in both English and French language:
  - "WARNING - EXPLOSION HAZARD – DO NOT DISCONNECT WHILE CIRCUIT IS LIVE OR UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS." and "AVERTISSEMENT - RISQUE D'EXPLOSION - NE PAS DÉBRANCHER PENDANT QUE LE CIRCUIT EST SOUS TENSION OU À MOINS QUE L'EMPLACEMENT NE SOIT EXEMPT DE CONCENTRATIONS INFLAMMABLES."

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- “WARNING - EXPLOSION HAZARD – DO NOT REMOVE OR REPLACE FUSE WHEN ENERGIZED.” and “AVERTISSEMENT - RISQUE D'EXPLOSION - NE PAS RETIRER NI REMPLACER UN FUSIBLE SI L'APPAREILLAGE EST SOUS TENSION.”
  - “CLASS 1 LASER PRODUCT. REFER SERVICING TO MANUFACTURER QUALIFIED PERSONNEL” and “PRODUIT LASER DE CLASSE 1. RÉFÉRER L'ENTRETIEN AU PERSONNEL QUALIFIÉ DU FABRICANT”
  - “CAUTION – INVISIBLE LASER RADIATION WHEN OPEN. (*on optical head assembly*)” and “ATTENTION - RAYONNEMENT LASER INVISIBLE LORS DE L'OUVERTURE. (*sur la tête optique*)”
  - The type and rating of each replaceable fuse shall be permanently marked adjacent to the fuse holder.
  - Terminal Designations shall be permanently marked adjacent to each field wiring terminal.
  - ISO 60417, Symbol 5019  shall be permanently marked adjacent to the equipment ground (protective conductor) terminal.
  - ISO 3864 Symbol B.3.1  or ISO 7000 symbol 0434  (triangle with exclamation point) shall be marked on the cable assemblies adjacent to each connector.

Notes:

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Products certified under Class C225802, C225882 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://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

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Project	Date	Description
80094611	2022-05-20	Update of cCSAus report 1569421 for Class I, Division 2 non-incendive Moisture and Carbon Dioxide monitors for Natural Gas Models SS2000 (Single Head), SS500 (Single Head) and SS3000 (Dual Head) for updates to drawings. Scope includes update to CSA No. 94.2-15/UL 50E-15 and CSA No. 213-17/UL 121201 Ninth Edition.
70219779	2019-06-21	Update report 1569421 project 70047683 to include three new power supplies tested before and replace some electronic boards with RoHS compliant boards and display (no design change).
70217651	2019-03-27	Update of CSA report 1569421 to include Class I, Zone 2 IIC markings on the nameplate as per the CEC and NEC allowances.
70047683	2015-12-07	Update the report 1569421 including drawings update and revision to C22.2 No 61010-1-12
2543727	2012-07-25	Update to include revised schematics due to the addition of previously certified relays to the SS500, SS2000 and SS3000 models.
2524707	2012-06-01	Update to cover minor report changes and addition of alternative Cell Tube assemblies.
2406157	2011-03-22	Update of Report 1569421 to include alternate sealants used to seal keypad ribbon cable on enclosure door.
2327754	2010-08-12	Update of Report 1569421 Part A to include an alternate 4-20mA Low Noise PCB and Sample Cell 0.1M.
2212697	2010-01-12	update of report 1569421 to include new Models SS500e, SS2000e and SS3000e analyzer systems.
1848087	2007-04-02	Update to 1569421 to include addition of Groups A and B for use in Class I, Division 2 locations for Models SS500, SS2000 and SS3000



1701487	2005-09-01	Update to 1569421 to include addition of Model SS500 for use in Class I, Division 2 Locations.
1569421	2005-03-09	Certification of Moisture Analyzers SS2000 and SS3000 to CSA_C_US, Class I, Division 2, Groups C and D.