



# Certificate of Compliance

**Certificate:** 1962158 **Master Contract:** 156625  
**Project:** 80186295 **Date Issued:** 12/20/2023  
**Issued to:** Greyline Instruments Inc.  
16456 Sixsmith Dr.  
Long Sault, Ontario K0C 1P0  
Canada  
**Attention:** Michael Blackadder

*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:** Zahra Amini  
Zahra Amini

## **PRODUCTS**

- C225803 PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non - Incendive Systems - For Hazardous Locations
- C225804 PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations
- C225883 PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems-For Hazardous Locations-Certified to U.S. Standards
- C225884 PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - - For Hazardous Locations - Certified to US Standards

Models
Please see as below:

**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 US Standards

**Class I, Division 1, Groups C and D; Class II, Groups E, F and G; Class III; Type 4:**



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- Ultrasonic Transducer, SE 2/3/4\*\*\* Series rated 10V max, 100mA max. Intrinsically safe when connected to CSA Certified Safety Barrier, rated 9.6V max and 27 ohms min. and installed per Control Drawing SESPEC-INST-01.

**Class I, Division 2, Groups A, B, C & D:**

- Ultrasonic Transducer, SE 2/3/4\*\*\* Series rated 10V max, 100mA max. Non-Incendive when connected to Level and Flow meter model DFM 5.0, DFM 5.1, DFM 6.1, AVFM 6.1, and SFM 6.1 per Control Drawing SESPEC-INST-02
- Ultrasonic Transducer, Model SE16 B\*\*\* rated 10V max, 100mA max. Non-Incendive when installed as per Dwg. SESPEC-INST-04 or SESPEC-INST-06.
- Ultrasonic Transducer, Model SE16 A\*\*\* rated 10V max, 100mA max. Non-Incendive when installed as per Dwg. SESPEC-INST-07.
- Ultrasonic Transducer, Model SE16 C\*\*\* rated 10V max, 100mA max. Non-Incendive when installed as per Dwg. SESPEC-INST-09.

**CLASS 2258 04** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations

**CLASS 2258 84** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations - Certified to U.S. Standards

**Class I, Division 1, Groups C and D; Class II, Groups E, F and G; Class III; Type 4:**

- Ultrasonic Transducer, Model SE16B\*\*\* Series, rated 10V max, 100mA max. Installed as per Dwg. SESPEC-INST-03 or SESPEC-INST-05. Intrinsically safe with the following parameters:

$V_{max}/U_i$ : 9.6V       $I_{max}/I_i$ : 400mA       $P_{max}/P_i$ : 907mW       $C_i$ : 47.19nF       $L_i$ : 110.1μH

- Ultrasonic Transducer, Model SE16A\*\*\* Series, rated 10V max, 100mA max. Installed as per Dwg. SESPEC-INST-07. Intrinsically safe with the following parameters:

$V_{max}/U_i$ : 9.6V       $I_{max}/I_i$ : 400mA       $P_{max}/P_i$ : 907mW       $C_i$ : 47.19nF       $L_i$ : 110.1μH

- Ultrasonic Transducer, Model SE16C\*\*\* Series, rated 10V max, 100mA max. Installed as per Dwg. SESPEC-INST-08. Intrinsically safe with the following parameters:

$V_{max}/U_i$ : 9.6V       $I_{max}/I_i$ : 400mA       $P_{max}/P_i$ : 907mW       $C_i$ : 47.19nF       $L_i$ : 110.1μH

**MARKING**

As per the descriptive report



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**APPLICABLE REQUIREMENTS**

CSA C22.2 No. 213-M1987 (First Edition) - Non-incendive electrical equipment for use in class I, division 2 hazardous locations

CAN/CSA C22.2 NO. 157-M92 - Intrinsically safe and non-incendive equipment or use in hazardous locations; General Instruction No. 1: June 1992; Update No. 2: June 2003

UL 50 (Eleventh Edition; Reprint with Revisions Through and Including September 12, 2003) - UL Standard for Safety Enclosures for Electrical Equipment

UL 913(Seventh Edition) - UL Standard for Safety Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division I, Hazardous (Classified) Locations

ANSI/ISA 12.12.01 : 2012 - Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

CSA C22.2 No. 94-M91 (Fourth Edition) (R2011) - Special Purpose Enclosures Industrial Products



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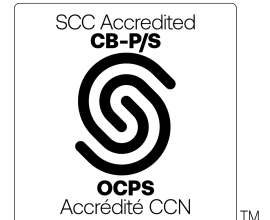
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**Notes:**

Products certified under Class C225803, C225804, C225883 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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<b>Project</b>	<b>Date</b>	<b>Description</b>
80186295	December 20, 2023	Update report 1962158 to add alternative housing material and including the specifications of materials. Also, alternate piezoelectric for Models SE4 and SE16B.
80046632	September 17, 2020	Update to CSA Report 1962158 to add SE16C sensor.
80011524	November 28, 2019	Update to CSA Report 1962158 to add the new SE16A transducer, assess alternate construction, and add new optional cable connectors located in non-hazardous location.
70203825	January 21, 2019	Update to report 1962158 (most recent project 70170355) to cover the inclusion of cable NS-D-12977 as an alternate to the existing cable CWPT- 13129.
70170355	February 05, 2018	Update to report 1962158 to cover changes to an installation drawing, label drawing, and to add a new installation drawing.
70153977	September 29, 2017	Update to CSA Report 1962158 to include changes to the SE16 sensor and its related drawings to cover addition of alternative cables and alternative models with sensor angle 35, 37, 39, and 41 degree.
70014159	February 18, 2015	Update to include revised general arrangement drawings.
2450364	November 23, 2012	Update to include the SE16*** Ultrasonic Transducer and minor drawing revisions.
2247222	January 13, 2010	Update report 1962158 for minor drawing change.
2191005	September 22, 2009	Update to report 1962158 to add US mark, add Doppler Series SE4-A, and add Class I, Division 2, Groups A, B, C & D.
1962158	October 02, 2007	Update to cover minor report corrections and include Model SE3.



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LR 91712-12 February 17, 1995

Original Certification. Ultrasonic Transducer, Model SE series. LR 91712-12 superseded by 1962158.