



Certificate of Compliance

Certificate: 2524043

Master Contract: 252069

Project: 70001363

Date Issued: July 17, 2013

Issued to: Rohrback Cosasco Systems, Inc.
11841 East Smith Avenue Santa Fe
Springs, CA 90670
USA

Attention: Lucky Iliev

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: E Giusti
E Giusti

PRODUCTS

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

(Canadian)

Ex ib IIC T4:

(USA)

Class I, Zone 1 AEx ib IIC T4:

Model UST2 fixed Ultrasonic Transducer: intrinsically safe powered only by the ULTRACORR-2 portable battery supply/transmitter. Input entity parameters: $U_i = 126 \text{ Vac}$, $I_i = 60 \text{ mA}$, $P_i = 173 \text{ mW}$, $C_i = 0.85 \text{ nF}$, $L_i = 0$; $-40^\circ\text{C} \leq T_{amb} \leq +70^\circ\text{C}$.

Notes:

- 1) The UST2 has been assessed as compliant for a T4 temperature class at an upper ambient temperature of 70°C. It has also been assessed with the front face attached to a process pipe up to 150°C provided that the cable end of the UST2 is at no more than 70°C. However, it should be noted that in this condition, with a pipe surface temperature at 150°C, the pipe surface itself limits the temperature class to T3.
- 2) The metallic ring on the top of the enclosure may store a level of electrostatic charge that could become incensive. Therefore, the user/installer shall implement precautions to prevent the build-up of electrostatic charge e.g. locate the



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equipment where a charge-generating mechanism (such as wind-blow dust) is unlikely to be present. Refer to user instructions for further information.

- 3) Under this certification, the UST2 Ultrasonic Transducer shall be connected to the ULTRACORR-2 as the single source for power.
- 4) The installation of the UST2 Ultrasonic Transducer to the intrinsically safe ULTRACORR-2 circuit shall comply with Article 504.30 (A) of NFPA 70 and Clause F6.1 of CSA C22.1.
- 5) The wiring between the UST2 Ultrasonic Transducer and the ULTRACORR-2 circuit shall have an external minimum insulation thickness of 0.8 mm.

Model ULTRACORR-2 portable battery supply/transmitter: intrinsically safe only when powered by two non-rechargeable, AA-size cells having part number 095818 or 095820 as specified in drawing number 725126. Output entity parameters: $U_o = 126 \text{ Vac}$, $I_o = 60 \text{ mA}$, $P_o = 173 \text{ mW}$, $C_o = 2.79 \text{ nF}$, $L_o = 9876 \text{ } \mu\text{H}$; $-40^\circ\text{C} \leq T_{amb} \leq +70^\circ\text{C}$.

Notes:

- 1) The cells in the ULTRACORR-2 battery pack are intrinsically safe and may be replaced by the user, however, only Rohrbach Cosasco Systems (RCS) P/N 095818 or 095820 cells supplied by RCS may be used; in addition, provided care is taken to prevent the cells being damaged, they may be changed whilst in the hazardous area. Cells with P/N 095820 are also compatible with units certified under previous issues of the certificate.
- 2) The ULTRACORR-2 contains a voltage-enhancing step-up transformer circuit clamped to 126 Vac by Zener diodes and used to activate the piezoelectric crystal.

APPLICABLE REQUIREMENTS

CSA C22.2 No. 0-10	General Requirements – Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 60079-0:11	Explosive atmospheres — Part 0: Equipment — General requirements
CAN/CSA-C22.2 No. 60079-11:11	Explosive atmospheres — Part 11: Equipment protection by intrinsic safety “i”
ANSI/ISA-60079-0 (12.00.01)-2009	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
ANSI/ISA-60079-11 (12.02.01)-2011	Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety “i”

MARKINGS

Product markings shall be in accordance with the related standards. In addition, it shall be the responsibility of the manufacturer to provide additional markings on the product to comply with the requirements of the local regulatory authorities. Example, for products intended for use in Canada, any caution and warning markings must be provided in French and English per CSA C22.2 No. 0-10, clause 6.3.1.

The following markings for each unit shall appear on a c-CSA-us Accepted OR c-UL-us Recognized adhesive label, which is suitable for indoor or outdoor use on plastic, at a maximum service temperature of 80°C or higher. The label stock shall be printed with one of the approved printer and ink combinations as specified in the manufacturers listing (Refer to drawing 646129-2 and 725125-2):

- Manufacturer’s name “Rohrbach Cosasco Systems, Inc”, “Rohrbach Cosasco Systems” or CSA Master Contract Number “252069”, adjacent to the CSA Mark in lieu of Manufacturer’s name.



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- Model number: as specified in the PRODUCTS section, above.
- Electrical ratings/ Entity Parameters: As specified in the PRODUCTS section, above.
- Ambient temperature rating: as specified in the PRODUCTS section, above (may be abbreviated).
- Manufacturing date in MMY format, or serial number, traceable to month of manufacture.
- The CSA Mark, as shown on page 1 of the Certificate of Conformity.
- Hazardous Location designation: as specified in the PRODUCTS section, above.
- Temperature Code: as specified in the PRODUCTS section, above.
- “Exib” (shall appear on the product)
- “INTRINSICALLY SAFE”
- “WARNING - NO LIVE MAINTENANCE”
- “12.2524043” (Certificate number) adjacent to the CSA Monogram



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
70001363	July 17, 2013	Update to report 2524043 to include new battery pack 095820 for ULTRACORR-2 and for UST2 : Mechanical changes; modification of Ci ; deletion of routine dielectric strength test.
2569040	December 11, 2012	Update to report 2524043 to include drawing revisions for the addition of a Warning equipment service note on two labels.
2524043	August 3, 2012	Original Certification of the Model UST2 Ultrasonic Transducer and the Model ULTRACORR-2 portable battery supply/transmitter.