



# Certificate of Compliance

**Certificate:** 2667762

**Master Contract:** 167534

**Project:** 2667762

**Date Issued:** January 22, 2014

**Issued to:** Mine Safety Appliances Company  
North American Division  
1000 Cranberry Woods Dr  
Cranberry Township, PA 16066-5296  
USA  
Attention: Warren Bennett

*The products listed below are eligible to bear the CSA Mark shown*



*Dennis Jeffrey*

**Issued by:** Dennis Jeffrey

## **PRODUCTS**

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

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

**Class I, Division 1 and 2, Groups B, C, and D; Class II, Division 1 and 2, Groups E, F, and G; Class III;  
T5**

**Ex d ia IIB + H2 Gb T6**

**Ex tb IIIC T85°C Db**

Gasonic Observer i Ultrasonic Gas Leak Detector rated 24 Vdc, 250 mA, Ambient Temperature  $-40^{\circ}\text{C} \leq T_{amb} \leq 60^{\circ}\text{C}$ ; Enclosure Type 4X, IP66.

Note:

This equipment is comprised of an explosionproof housing providing intrinsically safe outputs to an externally mounted intrinsically safe microphone and piezo source. When used in Division 2 locations, a seal is not required at the housing.



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**APPLICABLE REQUIREMENTS**

CSA C22.2 No. 0-10	General Requirements - Canadian Electrical Code, Part II
CSA C22.2 No. 94.1-07	Enclosures for Electrical Equipment, Non-Environmental Considerations
CSA C22.2 No. 94.2-07	Enclosures for Electrical Equipment, Environmental Considerations
CSA C22.2 No. 142-M1987	Process Control Equipment
CSA C22.2 No. 25-1966	Enclosures for Use in Class II Groups E, F, and G Hazardous Locations
CSA C22.2 No. 30-M1986	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CSA C22.2 No. 157-92	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.
CSA C22.2 No. 213-M1987	Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA- C22.2 No. 60529:05	Degrees of Protection Provided By Enclosures (IP Code)
CAN/CSA-C22.2 No. 60079-0:11 Second Edition	Explosive atmospheres – Part 0: Equipment – General requirements
CAN/CSA-C22.2 No. 60079-1:11 Second Edition	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d”
CAN/CSA-C22.2 No. 60079-11:11 First Edition	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety “i”
CAN/CSA-C22.2 No. 60079-31:12 First Edition	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure “t”

**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.



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The following markings appear on an adhesive nameplate, manufactured by Nelson Name Plate Co., type A-Heavy Duty, Pressure sensitive '300' (9472LE adhesive), ClearPolyester, 3 mil to 4 mil. Nameplate is affixed to the bottom of the enclosure.

- Manufacturer's name: "Mine Safety Appliances Company", or CSA Master Contract Number "167534", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model number: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.
- Enclosure ratings: As specified in the PRODUCTS section, above.
- The CSA Mark, as shown on the Certificate of Conformity.
- Hazardous Location designation: As specified in the PRODUCTS section, above (may be abbreviated).
- Temperature code: As specified in the PRODUCTS section, above.
- The following words:
  - "Exia"
  - "Intrinsically Safe" and "SÉCURITÉ INTRINSÈQUE"
  - "WARNING: Substitution of components may impair intrinsic safety" and "AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SÉCURITÉ INTRINSÈQUE"
  - "OPEN CIRCUIT BEFORE REMOVING COVER" and "OUVRIR LE CIRCUIT AVANT D'ENLEVER LE COUVERCLE", or "KEEP COVER TIGHT WHILE CIRCUITS ARE ALIVE" and "GARDER LE COUVERCLE BIEN FERMÉ TANT QUE LES CIRCUITS SONT SOUS TENSION" or the equivalent.
  - "DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT. READ AND UNDERSTAND INSTRUCTIONS MANUAL BEFORE OPERATING OR SERVICING. 6-M6 BOLTS MUST BE TIGHTENED TO 9 NM" and "NE PAS OUVRIR UN PRÉSENCE D'ATMOSPHÈRE EXPLOSIVE. LIRE ET COMPRENDRE MANUEL D'INSTRUCTIONS AVANT D'UTILISER OU SERVICE. VIS 6 M6 DOIVENT ÊTRE SERRÉES AU 9 NM."
  - "WARNING: Danger of electro-static sparking. Clean non-metallic parts only with a damp cloth." and "AVERTISSEMENT: Danger d'électro-statique étincelles. Nettoyer les pièces non métalliques uniquement avec un chiffon humide."

An installation manual or data sheet shall be supplied with each unit, containing the following minimum marking information:

- Manufacturer's name and address
- Electrical ratings: 24 Vdc, 250 mA.
- Specification for ambient temperature rating:  $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq 60^{\circ}\text{C}$ .
- Specification for appropriate wiring to the connector, including definition of pin functions, and specification for wire gauge.
- Mounting and installation instructions, including dimensions.
- The following words, or suitable equivalent:
  - THIS EQUIPMENT IS SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS (AS APPLICABLE) OR NON-HAZARDOUS LOCATIONS ONLY.
  - "WARNING – EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2" and "AVERTISSEMENT - RISQUE D'EXPLOSION – LA



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SUBSTITUTION DE COMPOSANTS PEUT RENDRE CE MATÉRIEL INACCEPTABLE POUR LES EM-PLACEMENTS DE CLASSE I, DIVISION 2”

- “DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT. READ AND UNDERSTAND INSTRUCTIONS MANUAL BEFORE OPERATING OR SERVICING. 6-M6 BOLTS MUST BE TIGHTENED TO 9 NM” and “NE PAS OUVRIR UN PRÉSENCE D’ATMOSPHÈRE EXPLOSIVE. LIRE ET COMPRENDRE MANUEL D’INSTRUCTIONS AVANT D’UTILISER OU SERVICE. VIS 6 M6 DOIVENT ÊTRE SERRÉES AU 9 NM.”
- “WARNING: Danger of electro-static sparking. Clean non-metallic parts only with a damp cloth.” and “AVERTISSEMENT: Danger d’électro-statique étincelles. Nettoyer les pièces non métalliques uniquement avec un chiffon humide.”