



# Certificate of Compliance

**Certificate:** 1536102 (LR 64969)

**Master Contract:** 167534

**Project:** 2362356

**Date Issued:** October 27, 2010

**Issued to:** Mine Safety Appliances Company

North American Division  
1000 Cranberry Woods Dr  
Cranberry Township, PA 16066-5296  
USA  
Attention: Stephen Kancel

*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.*



*Glenn Black*

**Issued by:** Glenn Black

## **PRODUCTS**

**CLASS 4828 01** - SIGNAL APPLIANCES - - Combustible Gas Detection Instruments-For Hazardous Locations

**CLASS 4828 81** - SIGNAL APPLIANCES-Combustible Gas Detection Instruments - For Hazardous Location-Certified to U.S. Standards

Class I, Groups A, B, C and D:

Combustible gas detector, Model Solaris and SolarisFIRE, portable, battery operated, intrinsically safe when used with one self contained 3.7 V rechargeable Lithium-ion battery. Temperature Code T4. Tamb. -20 Deg. C to +50 Deg. C. May be used with MSA Universal Pump Probe portable, battery operated, intrinsically safe when used with two 1.5V size AA Alkaline batteries, Models Duracell MN1500 or Energizer E91 or Varta 4006. Temperature Code T4. Tamb. -20 Deg. C to +50 Deg. C.

Combustible gas detector, Models Solaris LX and Solaris LX FIRE, portable, battery operated, intrinsically safe when used with three 1.5V size AA Alkaline batteries, Models Duracell MN1500 or Energizer E91. Temperature Code T4 with Duracell and T3 with Energizer. Tamb. -20 Deg. C to +50 Deg. C. May be used with MSA Universal Pump Probe portable, battery operated, intrinsically safe when used with two 1.5V size AA Alkaline batteries, Models Duracell MN1500 or Energizer E91 or Varta 4006. Temperature Code T4. Tamb. -20 Deg. C to +50 Deg. C.



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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. 157-92 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA Std C22.2 No. 30-M1986 - Explosion-Proof Enclosures for Use in Class I Hazardous Locations

CSA Std C22.2 No. 152-M1984 - Combustible Gas Detection Instruments

UL Std No. 913, July 31, 2006- Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous Locations

ANSI/ISA-12.13.01-2000- Performance Requirements for Combustible Gas Detectors.

UL Std No. 1203, Sept. 15, 2006- Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations

### **MARKINGS**

Solaris and SolarisFIRE:

- CSA Monogram with C US indicator;
- Submitter Identification;
- Model Number;
- Serial Number, Date Code or Month and Year of Manufacture;
- Hazardous locations designation;
- Wording re: Intrinsically Safe;
- The symbol “Exia”;
- Ambient Temperature;
- Temperature Code;
- Warning: Substitution of components may impair intrinsic safety;
- The words “C22.2 No. 152”;
- Wording re: Do not change or charge batteries in a hazardous location
- Wording re: Read and Understand Manual



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- Wording re: May be used with MSA Universal Pump Probe

Solaris LX and Solaris LX FIRE:

- CSA Monogram with C US indicator;
- Submitter Identification;
- Model Number;
- Serial Number, Date Code or Month and Year of Manufacture;
- Hazardous locations designation;
- Wording re: Intrinsically Safe;
- The symbol "Exia";
- Ambient Temperature;
- Temperature Code;
- Warning: Substitution of components may impair intrinsic safety;
- The words "C22.2 No. 152";
- Wording re: Do not change batteries in a hazardous location
- Wording re: Read and Understand Manual
- Wording re: May be used with MSA Universal Pump Probe

Pump:

- CSA Monogram with C US indicator;
- Submitter Identification;
- Model Number;
- Serial Number, Date Code or Month and Year of Manufacture;
- Hazardous locations designation;
- Wording re: Intrinsically Safe;
- The symbol "Exia";



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- Ambient Temperature;
- Temperature Code;
- Warning: Substitution of components may impair intrinsic safety;
- The words "C22.2 No. 152";
- Wording re: Do not change or charge batteries in a hazardous location
- Wording re: Read and Understand Manual
- Wording re: use only with MSA Models Solaris, Solaris LX, SolarisFIRE , Solaris LX FIRE and Altair 4