



Certificate of Compliance

Certificate: 1417933 (LR 80259)

Master Contract: 157918

Project: 1674731

Date Issued: 2005/05/27

Issued to: BW Technologies Limited
2840 2nd Ave SE
Calgary, AB T2A 7X9
Canada
Attention: Thom Crawford

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US'



Issued by: Gary Boswell

Authorized by: Patricia Pasemko, Operations Manager

PRODUCTS

- CLASS 4828 01** - SIGNAL APPLIANCES - - Combustible Gas Detection Instruments - For Hazardous
- CLASS 4828 81** - SIGNAL APPLIANCES-Combustible Gas Detection Instruments - For Hazardous Location-Certified to U.S. Standards
- CLASS 4828 02** - SIGNAL APPLIANCES - Toxic Gas Detection Instruments - For Hazardous Locations
- CLASS 4828 82** - SIGNAL APPLIANCES-Toxic Gas Detection Instruments-For Hazardous Locations. Certified to U.S. Standards

Class I, Groups C and D; Class II, Group G:

The 'C' and 'US' indicators adjacent to the CSA Mark signify that the product has been evaluated to the applicable CSA and ANSI/UL Standards, for use in Canada and the U.S., respectively. This 'US' indicator includes products eligible to bear the 'NRTL' indicator. NRTL, i.e. National Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognized to perform certification to U.S. Standards.



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- Stationary Toxic/Combustible Gas Detectors, RIGRAT III, Model RR-3000, RR-3000S; I.S. Battery powered (12Vdc); Temperature Code T3C; Maximum Ambient 50°C; Enclosure Type 4; may be connected to one or two sensors P/N SAIL-L3W1, SAIL-L3** and/or SA-L2** (Class II is excluded for combustible sensors); one Solar Panel P/N SP-U310-S or SP-U300-S; and a Remote Strobe Light, Models UR-L600, UR-L601 or UR-L602 (Class I, Div 2 only). The RigRat III has the following entity parameters:

CHARGER PORT: $V_{max} = 24Vdc$, $I_{max} = 433mA$, $C_i = 0.1\mu F$, $L_i = 0\mu H$

OPTION PORT A1, A2: $V_{max} = 15Vdc$, $I_{max} = 150mA$, $C_i = 0\mu F$, $L_i = 0\mu H$

OPTION PORT S1, S2: $V_{max} = 8.2Vdc$, $I_{max} = 150mA$, $C_i = 0\mu F$, $L_i = 0\mu H$

OPTION PORT B+ : $V_{max} = 15Vdc$, $I_{max} = 390mA$, $C_i = 0\mu F$, $L_i = 0\mu H$

Notes:

1. The subject gas detectors have been investigated by CSA only for use in hazardous areas and have not been investigated for detection of toxic gases.
2. The combustible sensor head is for use in Class I, Groups C and D only
3. The Remote Strobe Light is certified for use in Class I, Division 2, Groups C and D Hazardous Locations only.

APPLICABLE REQUIREMENTS

C22.2 No 0 - M1991 - General Requirements - Canadian Electrical Code Part II.

C22.2 No 25 - M1966 - Enclosures for Use in Class II Groups E, F and G Hazardous Locations.

C22.2 No 94 - M1991 - Special Purpose Enclosures.

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

C22.2 No 157 - M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.

C22.2 No 213 - M1987 - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.

UL 50, Eleventh Edition - Enclosures for Electrical Equipment

UL 913, Sixth Edition - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.

UL 1203, Third Edition - ExplosionProof and DustIgnitionProof Electrical Equipment for Use in Hazardous (Classified) Locations.

UL 1604, Third Edition - Electrical Equipment for Use in Class I and II, Division 2, And Class III Hazardous



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(Classified) Locations.

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



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
1674731	2005/05/27	Update to Report 1417933 to include alternate components (Does not affect IS).
1657324	2005/04/28	Update to Report 1417933 to Include Drawings of the Adhesive Label and Revised Schematics for the Universal Sensor Module
1523395	2004/09/22	Update to report 1417933 to include revised combustible gas detector and alternate toxic sensors.
1458826	2003/09/12	Update to Project 1417933 to include alternate Beepers

History

1417933 - April 30, 2003 - Original Certification of RigRat III combustible / toxic gas detector.