

Certificate of Compliance

Certificate: 1399907 (LR 80259)

Master Contract: 157918

Project: 1482257 (Edition 2)


Date Issued: October 9, 2003

Issued to: **BW Technologies Limited**
2840 - 2nd Avenue SE
Calgary, AB
CANADA

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



Issued by:  Patrick Conway C.E.T.

Authorized by:  Patricia Pasemko
Operations Manager

CLASS

4818-03 SIGNAL APPLIANCES – Miscellaneous – For Hazardous Locations

4818-83 SIGNAL APPLIANCES - Miscellaneous – For Hazardous Locations - Certified to US Standards

PRODUCTS

Class I, Division 1, Groups A, B, C and D

Portable gas sample draw pump model "The Sampler". Temperature Code 163°C or 212°C dependant on battery type installed; Ambient Temperature Range: -20°C to 50°C. Intrinsically Safe when powered by one of the following AA Size Batteries

Alkaline (T-Code 163°C)

Duracell MN1500

Energizer E91

NiMH rechargeable (T-Code 212°C)

Quest Platinum HGAAC1800G, Quest IIG1600AACS, Energizer NH15

Maha Powerex 1700mAh MH-AA170, Maha Powerex 1800mAh MH-AA180

Yuasa Delta 1300mAh DHA1400AA, Yuasa Delta 1500mAh DHA1600AAC

Uniross 1300mAh, Uniross 1700mAh

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.

Certificate: 1399907
Project: 1482257

Master Contract: 157918
Date: October 09, 2003

APPLICABLE REQUIREMENTS

- CSA Standard C22.2 No 0-M1991 - General Requirements - Canadian Electrical Code Part II.
- 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.
- 1010.1-92 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use. Part 1: General Requirements.
- CAN/CSA E60079-0:00 - Electrical apparatus for explosive gas atmospheres – Part 0: General Requirements
- CAN/CSA E60079-11:01 - Electrical apparatus for explosive gas atmospheres – Part 11: Intrinsic safety “i”
- UL 913, Fifth Edition - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations
- UL61010B-1 - Electrical Measuring and Test Equipment; Part 1: General Requirements

CONDITIONS OF ACCEPTABILITY

The above model is classified as Equipment Class III and was evaluated as Pollution Degree 2, Installation Category I per CSA Std. 1010.1



Supplement to Certificate of Compliance

Certificate: 1399907 (LR 80259)

Master Contract: 157918

*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
1399907	February 14, 2003	Original Certification of Portable gas sample draw pump model "The Sampler".
1482257	October 09, 2003	Update to 1399907 to include alternate plastic for enclosure.

(1) EC-TYPE EXAMINATION CERTIFICATE

(2) Equipment or protective system intended for use in potentially explosive atmospheres – Directive 94/9/EC

(3) EC-Type Examination Certificate Number: **KEMA 03ATEX1500**

(4) Equipment or protective system: **Portable Gas Sampling Pump Model GA-SP02, The Sampler**

(5) Manufacturer: **BW Technologies Ltd.**

(6) Address: **2840-2nd Avenue SE, Calgary, Alberta T2A 7X9, Canada**

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. 2037016.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014 : 1997

EN 50020 : 2002

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment or protective system according to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:



II 2 G EEx ia IIC T3 ... T4

Arnhem, 19 December 2003
KEMA Quality B.V.



T. Pijpker
Certification Manager

© This Certificate may only be reproduced in its entirety and without any change



Certificate of Type Approval (RQS)

This is to certify that BW Technologies
has met the requirements of ABS Product Type Approval for
Samplerpack
Model Name(s): GA-SPAK

Presented to:

BW Technologies
2840 - 2nd Avenue S.E.
Calgary
Alberta T2A 7X9
Canada

Intended Service:

External Motorized Sampling Pump Kit

Description:

A battery powered, motorized, intrinsically safe pump for spot sampling providing a flow to gas detectors via a flexible hose

Ratings:

Class 1, Div 1, Gps A, B, C, & D / Class 1, Zone 0, Gp IIC

Service Restrictions:

Unit Certification is not required for this product.

Comments:

Self contained device, battery powered, motorized remote spot sampling pump

Notes / Documentation:

Term of Validity:

This product/model is covered under Product Design Assessment (PDA) Certificate # 03-HS360038-PDA, dated 25/Mar/2003. This PDA Certificate expires March of 2008. It will remain valid for the 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first).

ABS Rules:

2003 Steel Vessel Rules 1-1-4/3.7, 4-8-3/13.5, 5-1-7/17.7, 5-1-7/19.5.1, 5-1-7/25.33 & 31

National Standards:

International Standards:

CSA International Cert# 1399907 (LR 80259)

Government Authority:

EUMED:

Others:

Manager, ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all

cases, be addressed to ABS.