



CERTIFICATE NUMBER

DATE

05-HS503132-1-PDA

07 September 2010

ABS TECHNICAL OFFICE

Houston SED - Ship Equipment

# CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of  
**BW TECHNOLOGIES BY HONEYWELL - CALGARY**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

**PRODUCT:** Gas Detector

**MODEL:** GasAlertMicro 5-XWT1T2-R-P-D-A-B-CC, GasAlertMicro 5 PID-XWT1T2-R-P-D-A-B-CC & GasAlertMicro 5 IR-XWT1T2-R-P-D-A-B-CC;

**ABS RULE:** 2010 Steel Vessels Rules: 1-1-Appendix 3, 1-1-4/7.7, 4-8-3/13, 4-8-4/27, 5-1-7/ 17.7, 5-1-7/31 & 5-1-7/Table 1

**OTHER STANDARD:** CSA Certificate: 1775580 (80259) dated 2009/04/28; IECEx Certificate of Conformity: IECEx CSA 06.0011 dtd 2009/05/05  
EC- Type Examination Certificate No: KEMA 06ATEX0206 dtd 2009/06/15

AMERICAN BUREAU OF SHIPPING

Tim Kimble

Engineering Type Approval Co-ordinator

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

2840 2ND AVENUE S.E.  
CALGARY  
ALBERTA T2A 7X9  
Canada  
Telephone: 403-248-9226  
Fax: 403-273-3708

MA Certificate No. 08-VA983920-A-X

---

**Product:** Gas Detector

**Model:** GasAlertMicro 5-XWT1T2-R-P-D-A-B-CC, GasAlertMicro 5  
PID-XWT1T2-R-P-D-A-B-CC & GasAlertMicro 5 IR-XWT1T2-R-P-D-A-B-CC;

**Intended Service:**

Marine & Offshore Applications - Portable Multi- Gas Detector

**Description:**

5/PID/IR Intrinsically Safe Portable Multi-Gas Detectors for monitoring up to 5 gases like oxygen, combustible and toxic gases simultaneously and continuously utilizing Electrochemical, Catalytic Bead and Photo-Ionization Sensors for use in Hazardous Locations.

**Ratings:**

Dust and moisture ingress: IP65/66

CSA: Class I, Group A, B, C, and D

IECEX: Ex ia IIC (M5 and M5PID); Ex d ia IIC (M5IR),

KEMA: II 2 G Ex d ia IIC (for M5IR); II 1 G Ex ia IIC (for M5 & M5PID)

Temperature Code dependent on battery type installed.

Temperature Code:

Duracell MN1500 - T-Code T4;

Energizer E91 - T-Code 135.3 °C;

Lithium Polymer Rechargeable Battery Pack "M5-BAT08" or "M5-BAT08B" (contains Narada Lithium battery pack part number - NL704060F0) - T-Code T4.

Ambient Temperature Range: -20 °C to +50 °C.

See attached Specifications for Ratings, Certifications, Options, Alarms, Gases Detected, etc.

**Service Restrictions:**

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

**Comments:**

Intrinsically Safe when powered by one of the following AA Size Batteries Duracell MN1500

Energizer E91 or

Lithium Polymer Rechargeable Battery Pack "M5-BAT08" or "M5-BAT08B".

The Lithium Battery Pack may only be charged outside the hazardous area by means of associated charger types.

**Notes / Drawings / Documentation:**

This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

**Term of Validity:**

This product/model is covered under Product Design Assessment (PDA) Certificate # 05-HS503132-1-PDA, dated 07/Sep/2010. This PDA Certificate remains valid until 06/Sep/2015 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

**STANDARDS**

BY TECHNOLOGIE BOUTEILLE

2840 2ND AVENUE S.E.  
CALGARY  
ALBERTA T2A 7X9  
Canada  
Telephone: 403-248-9226  
Fax: 403-273-3708

**MA Certificate No.** 08-VA983920-A-X

---

**ABS Rules:**

2010 Steel Vessels Rules: 1-1-Appendix 3, 1-1-4/7.7, 4-8-3/13, 4-8-4/27, 5-1-7/ 17.7, 5-1-7/31 & 5-1-7/Table 1

**National:**

CSA Certificate: 1775580 (80259) dated 2009/04/28

**International:**

IECEX Certificate of Conformity: IECEX CSA 06.0011 dtd 2009/05/05

EC- Type Examination Certificate No: KEMA 06ATEX0206 dtd 2009/06/15

**Government Authority:**

NA

**EUMED:**

NA

**Others:**

NA