



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 08/APR/2018. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 03/AUG/2020 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid 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.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Gas Detector

Model Name(s): Gas Alert Micro 5 - M5-XWT1T2-R-P-D-A-B-CC,
M5-PID-XWT1T2-R-P-D-A-B-CC & M5-IR-XWT1T2-R-P-D-A-B-CC;

Presented to:

BW TECHNOLOGIES BY HONEYWELL
2840 2ND AVENUE S.E.
Canada

Intended Service:

Marine & Offshore Applications - Portable Multi Gas Detector

Description:

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.

Tier:

3

Ratings:

CSA: Class I, Group A, B, C, and D IECEx: Ex d ia IIC (M5IR), Ex ia IIC (M5 and M5PID); ATEX: II 2 G Ex d ia IIC T4 or 135.3 °C Gb (for M5IR); II 1 G Ex ia IIC T4 or 135.3 °C Ga (for M5 & M5PID) Temperature code/maximum surface temperature depends on the batteries used: Duracell MN1500 - Temperature code T4; Energizer E91 - Temperature code 135.3 °C; Lithium Polymer Rechargeable Battery Pack "M5-BAT08" or "M5-BAT08B" - Temperature code T4. Ambient Temperature Range: -20 °C to +50 °C. Dust and moisture ingress: IP65/66 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: The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. - Batteries must only be changed in Non-Hazardous Area (For Alkaline battery equipped models) - Use approved 1.5V AA Batteries only. See Manual for approved listing. (For Alkaline battery equipped models) - Battery must only be charged in a non-hazardous area. (For Lithium Polymer Rechargeable Battery pack "M5-BAT08" or "M5-BAT08B" equipped models) - Meets the Performance requirements for Combustible Gas Detectors in ANSI/ISA S12.13 - Approval is for hardware only. Each vessel configuration and external connection is to be specifically approved.

Notes / Documentation: Drawing No. 117992_GM5A-09D, Battery Pack Warning Label, Revision: D1, Pages: 1 Drawing No. 122500_GM52A-01B_label_certification_recharge-batt, Rechargeable Battery Pack, Revision: B, Pages: 1 Drawing No. 124289_GM52A-04C_label_battery-warning_rech, Rechargeable Battery Pack Warning Label, Revision: C, Pages: 1 Drawing No. 125801_GMBLA-01C_label_certification_LiPo-IR, Rechargeable Battery Pack Certification Label, Revision: C, Pages: 1 Drawing No. CoFC_2636215_50118920-022, CSA Certificate of Conformity, Revision: -, Pages: 1 Drawing No. DEKRA_216556800-KEMA06ATEX0206 Iss 9 (E)_signed, EC-Type Certificate, Revision: -, Pages: 1 Drawing No. GM52UW-20C, PCB, Revision: C, Pages: 1 Drawing No. GM52W-30E, Block Diagram, Revision: E, Pages: 1 Drawing No. GM5A-22_F 126638-L3 127398-L3 Label-Cert GasAlert Micro5 PID-Toxic, Certification Label, Revision: F, Pages: 1 Drawing No. GMRA-01_H 122522-L3 Label-Cert GAMicro 5 IR, Label, Revision: H, Pages: 1 Drawing No. IECEx CSA 06, IECEx Certificate of Conformity, Revision: -, Pages: 1 Drawing No. Micro 5 Updates, New Updates Sheet, Revision: -, Pages: 1 Drawing No. PIDW-10K, PID Board, Revision: K, Pages: 1 IECEx Certificate of Conformity: IECEx CSA 06.0011 dtd 2013/07/18 EC- Type Examination Certificate No: KEMA 06ATEX0206 CSA Certificate: 1775580 (80259) dated 2013/06/26

Term of Validity: This Product Design Assessment (PDA) Certificate 15-HS1399405-PDA, dated 04/Aug/2015 remains valid until 03/Aug/2020 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules: Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2015 Steel Vessel 4-8-3/13, 4-8-4/27, 5-1-7/ 17.7, 5-1-7/31.9 & 5-1-7/Table 1; Rules for Conditions of Classification, Part 1 - 2015 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following: 2015 Mobile Offshore Drilling Units 4-3-1/15, 17.1, 4-3-3/9.1.2; 2015 Facilities on Offshore Installations 3-8/7.3.1(i).

National Standards: UL913, ANSI/ISA S12.13.01-2000

International Standards: IEC 60079-0:2011, IEC 60079-1:2007-04, IEC 60079-11:2011, EN60079-0:2012, EN 60079-1:2007; EN60079-11:2012, EN60079-26:2007, CSA C22.2 No.0-10; C22.2 No.152-M1984, C22.2 No.157-M1992.

Government Authority:

EUMED:

Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	15-HS1399405-PDA	06/AUG/2015	03/AUG/2020



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.