



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 25/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): GasAlertMicroClip XT (MC2-XWHM-xx), GasAlertMicroClip XL (MCXL-XWHM-xx) and GasAlertMicroClip X3 (MCX-XWHM-a-bb)

Presented to:

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

Intended Service:

Marine & Offshore Applications - Portable multi-gas Detector for CO, H₂S, Combustible Gas and Oxygen.

Description:

GasAlertMicroClip is a Multi-Gas Detector warns of Hazardous Gas at Levels above user-defined Alarm Setpoints. Confirmation of Detector Operation & Compliance provided by IntelliFlash.

Tier:

3

Ratings:

Operating Temperature: -4 °F to +122 °F (-20 °C to +50 °C); CSA certified -20 °C to +58 °C on the Combustible Sensor; Storage Temperature: -40 °F to +122 °F (-40 °C to +50 °C); Hazardous Atmosphere: cCSAus: Class I, Div. 1, Group A, B, C, D T4; ATEX: II 1 G Ex ia IIC T4 Ga; IECEx: Ex ia IIC T4 Ga; Ta= -20 to 50°C (XL & X3), Ta: -20 to 58°C (XT); Intrinsically Safe: when powered by Lithium Polymer Battery; Protection: IP 65/67; Operating Humidity: 0% to 95% relative humidity; Audible Alarm: 95 dB at 30 cm (1 ft).

Service Restrictions:

Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined. i) ATEX certified equipment is not to be installed in hazardous areas on U.S vessels unless it can be prove to have been tested to the applicable IEC 60079 series standards by an independent laboratory accepted by the U.S

coast Guard. USCG notice 01-12 (February 7, 2012). ii) All electrical equipment intended for installation in hazardous areas are to be certified safe type based on the class of the hazardous area at its location of installation. Certificates in this regard are to be presented to ABS Surveyor for verification on a case by case basis.

Comments:

Duplicate PDA resides with RAE Systems (Shanghai) Inc. - Jiading District, China and System Sensor de Mexico - Juarez, Chihuahua, Mexico. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes / Documentation:

Manual No. 50120681-001 EN-D1 Operator's Manual MicroClip XT, XL & X3, Issued 2015; BOM No. 50123060-004, Certification BOM MCX3, Revision A1, Issued 02 April 2015; BOM No. 50123060-005, Certification BOM XL, Revision B1, Issued 19 March 2015; BOM No. 50123060-002, Certification BOM XT, Revision B1, Issued 19 March 2015; Drawing No. BWTD-02A3, Lithium-Polymer Battery ASM, Microclip XL, Revision A.3; Drawing No. GMCX3A-02, GMCX3A-02 GasCertification Label, Revision A.1; Drawing No. GMCX3D-60A1, GA Microclip X3-Material Details, Revision: A.1; Drawing No. GMCX3D-61A1, GA MicroClip X3 Assembly, Revision A.1; Drawing No. GMCX3D-62A1, Battery Volume Details, GA Microclip X3, Revision A.1; Drawing No. GMCX3E-01B MicroClip X3 Brand Label Artwork; Drawing No. GMCX3W-01D, GasAlert Microclip X3 PCB Block Diagram, Revision D; Certificate No. 1730355, CSA Certificate of Compliance, Issued 05 April 2015; Certificate No. IECEx CSA 05.0015, IECEx Certificate of Conformity, Revision 11, Issued 10 June 2015; Sira Certificate No. Sira 13ATEX2330, EC Type Examination, Revision: 2, Issued 15 June 2015.

Term of Validity:

This Product Design Assessment (PDA) Certificate 15-VC1407820-PDA, dated 26/Aug/2015 remains valid until 25/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-Appendix 3, 1-1-Appendix 4, which covers the following: 2015 Steel Vessel 4-8-3/1.11.1, Table 2, 13.3.1, 4-8-4/27.1, 27.5.1, 5C-1-7/17.7, 25.33, Table 1; Rules for Conditions of Classification, Part 1 - 2015 Offshore Units and Structures 1-1-4/9.7, 1-1-Appendix 2, 1-1-Appendix 3, which covers the following: 2015 Mobile Offshore Drilling Units: 4-3-1/3.15, 15, 4-3-3/9.1.1, 9.1.2, 9.1.3, 9.5, Table 1.

National Standards:

ANSI/UL 913, 7th Edition; ANSI/ISA S12.13.1 : 2000;

International Standards:

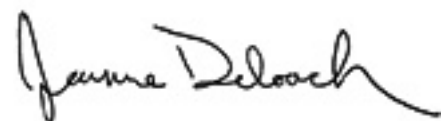
CSA Standard C22.2 No. 0-2010, No. 152 -M1984, No. 157-M1992;

Government Authority:**EUMED:**

EN 60079-0, 6th Edition : 2012; EN 60079-11, 6th Edition : 2012; EN 60079-26, 2nd Edition : 2007.

Others:

| Model Certificate | Model Certificate No | Issue Date | Expiry Date |
|-------------------|----------------------|-------------|-------------|
| PDA | 15-VC1407820-PDA | 27/AUG/2015 | 25/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.