Electronically published by ABS Veracruz CS.
Reference T1407820, dated 26-AUG-2015.

CERTIFICATE NUMBER
15-VC1407820-PDA

DATE
26 Aug 2015

ABS TECHNICAL OFFICE
TIV-MEX-Verazcruz Engineering Services

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of

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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.

Product: **Gas Detector**

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

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.

AMERICAN BUREAU OF SHIPPING

Tim Kimble
Engineer

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).

Print

Company Information	Additional Company/ Plant Detail	Confirmation Of Type Approval
BW TECHNOLOGIES BY HONEYWELL 2840 2ND AVENUE S.E. T2A 7X9 Canada Tel 403-248-9226 Fax 403-273-3708 Email : bonnie.saxinger@honeywell.com Website : www.gasmonitors.com		15-VC1407820-PDA

Certificate Number	*Category*	*Expiry Date*
13-VA2320818-A-X RQS		08/APR/2018

Product	Gas Detector
Model	GasAlertMicroClip XT (MC2-XWHM-xx), GasAlertMicroClip XL (MCXL-XWHM-xx) and GasAlertMicroClip X3 (MCX-XWHM-a-bb)
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.
Ratings	Operating Temperature: -4 ºF to +122 ºF (-20 ºC to +50 ºC); CSA certified -20 ºC to +58 ºC on the Combustible Sensor; Storage Temperature: -40 ºF to +122 ºF (-40 ºC to +50 ºC); 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 requests 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, Drawing and 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 MCXL, Revision B1, Issued 30 May 2015; BOM No. 50123060-002, Certification BOM MCXT, Revision B1, Issued 30 May 2015; Drawing No. BWTD-02A3, Lithium-Polymer Battery ASM, Microclip XL, Revision A.3; Drawing No. GMCX3A-02, GMCX3A-02 GasCertifcation 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 PCB Layout; 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;
EUMED Standards	EN 60079-0, 6th Edition : 2012; EN 60079-11, 6th Edition : 2012; EN 60079-26, 2nd Edition : 2007.

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	15-VC1407820-PDA	27/AUG/2015	25/AUG/2020