



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 09/MAR/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): BW Clip Series BWC[2/3][R]-[H/M/S/X]

Presented to:

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

Intended Service:

Marine Applications - Portable single-gas detector for oxygen or toxic gases.

Description:

The BW Clip is a portable single gas detector designed to continuously measure the concentration of a specific gas CO, H₂S, O₂ or SO₂.

Tier:

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Ratings:

Gas Type Ambient Temperatures: H₂S Hydrogen Sulfide, -40°C to +50°C (-40°F to +122°F); CO Carbon Monoxide, -30°C to +50°C (-22°F to +122°F); SO₂ Sulphur Dioxide, -30°C to +50°C (-22°F to +122°F); O₂ Oxygen, -20°C to +50°C (-4°F to +122°F); Hazardous Areas: USA/Canada Intrinsically Safe Class I, Groups A, B, C, D; and Class I, Zone 0, AEx ia IIC T4; International - Intrinsically Safe: Ex ia IIC T4 Ga; Operating Humidity: 5% to 95% relative humidity; Audible Alarm: 95 dB at 10 cm (3.9 in). Enclosure: IP67;

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. Duplicate PDA reside with System Sensor de Mexico, Cd. Juarez.-Mexico. Note: For electrical equipment installed in hazardous areas, ATEX certification scheme is not currently recognized by the U.S. Coast Guard.

Notes / Documentation:

Certificate No. IECEx UL 14.0063 Rev. 0, IECEx Certificate of Conformity, Issued

December 29, 2014; Certificate No. DEMKO 14 ATEX 1356 Rev. 0, EC-Type Examination Certificate, Issued December 29, 2014; Certificate No. 20141230-E131021, UL Certificate of Compliance, Issued December 30, 2014; Report No. E131021, UL Test Report, Issued December 22, 2014; Report No. US/UL/ExTR14.0095/00, IECEx Test Report, December 29, 2014; Drawing No. PALOA-04 Rev. A1, BW Clip certification Label; Drawing No. PALOA-02B1 Rev. B1, Brand Label Artwork - CLIP for Hydrogen Sulfide; Drawing No. PALOA-02B1 Rev. B1, Brand Label Artwork - CLIP for Sulfur Dioxide; Drawing No. PALOA-02B1 Rev. B1, Brand Label Artwork - CLIP for Carbon Monoxide; Drawing No. PALOA-02B1 Rev. B1, Brand Label Artwork - CLIP for Oxygen; Drawing No. PALOA-02B1 Rev. B1, Brand Label Artwork - CLIP for Hydrogen Sulfide / 3Y; Drawing No. PALOA-02B1 Rev. B1, Brand Label Artwork - CLIP for Carbon Monoxide / 3Y; Drawing No. PALOA-02B1 Rev. B1, Brand Label Artwork - CLIP for Hydrogen Sulfide / RT; Drawing No. PALOA-02B1 Rev. B1, Brand Label Artwork - CLIP for Carbon Monoxide / RT; Drawing No. PALOD-61 Rev. A2, Palomino Assembly, Exploded; Drawing No. PALOD-62A2 Rev. A2, Certification Material Details, BW CLIP; Drawing No. PALOE-01C, Layers; Drawing No. PALOW-01C Rev. C, BW Clip Block Diagram Schematic Diagram; Drawing No. PALOW-01C Rev. C, BW Clip Alarm Circuits Schematic Diagram; Drawing No. PALOW-01C Rev. C, BW Clip Microcontroller Schematic Diagram; Drawing No. PALOW-01C Rev. C, BW Clip revisions Schematic Diagram; Drawing No. PALOW-01C Rev. C, BW Clip Sensor Front End Schematic Diagram; Document No. PALOE-01C Rev. C, Fabrication Requirements; Document No. OM-EN-PALOA-A3, BW Clip Operator Manual; Document No.50123060-003 Rev. A1, Bill of Material.

Term of Validity:

This Product Design Assessment (PDA) Certificate 15-VC1321247-PDA, dated 10/Mar/2015 remains valid until 09/Mar/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 Vessel Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4 which Covers the following: Steel Vessels: 4-8-3/1.11, Table 2, 13; 4-8-4/27, 5C-1-7/17.7, 25.33, 31.5, 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: Mobile Offshore Drilling Units: 4-3-1/3.15, 15, 4-3-3/9.1.1, 9.1.2, 9.1.3, 9.3.2, 9.5, Table 1.

National Standards:

UL 913 8th Edition: 2013; UL 60079-0 6th Edition: 2013; UL 60079-11 6th Edition: 2013;

International Standards:


IEC 60079-0 : 2011 Edition 6; IEC 60079-11 : 2011 Edition 6; IEC 60079-26 : 2006 Edition 2. CAN/CSA-C22.2 No. 60079-0:11 Edition 2: 2012; CAN/CSA-C22.2 No. 60079-11:14 Edition 2:2014; CAN/CSA-C22.2 No. 157-92: 2012 Edition 2.

Government Authority:**EUMED:**

EN 60079-0:2012+A11:2013; EN 60079-11:2012; EN 60079-26:2007

Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	15-VC1321247-PDA	11/MAR/2015	09/MAR/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.