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| CERTIFICATE NUMBER   | 23-2443088-PDA       |
| EFFECTIVE DATE       | 29-Aug-2023          |
| EXPIRY DATE          | 28-Aug-2028          |
| ABS TECHNICAL OFFICE | Houston ESD - Piping |

## CERTIFICATE OF Product Design Assessment

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

**RKI INSTRUMENTS, INC.**

located at

**33248 CENTRAL AVE., , UNION CITY, CA, United States, 94587**

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 Monitor**  
**Model: BEACON 110**  
**Endorsements:**  
**Tier: 3 - Type Approved, unit certification not required**

This Product Design Assessment (PDA) Certificate remains valid until 28/Aug/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

John Vincent Bog-Acon Ulep, Senior Principal 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 ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

**RKI INSTRUMENTS, INC.**

33248 CENTRAL AVE.

UNION CITY CA

United States 94587

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Web: www.rkiinstruments.com

**Tier: 3 - Type Approved, unit certification not required**

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**Product:** Gas Monitor

**Model:** BEACON 110

**Endorsements:**

**Intended Service:**

Marine & Offshore Application.

**Description:**

Single Channel Wall Mount Controller.

**Rating:**

Power: 115/220 VAC or 24 VDC.

Operating Temperature: -4°F to 122°F (-20°C to 50°C).

Storage Temperature: -4°F to 158°F (-20°C to 70°C).

Enclosure: NEMA 4X.

See attached "Beacon 110, Product Brochure F000-1902/1000" Data Sheet for details.

**Service Restriction:**

1. 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.
2. Suitable for installed in non-hazardous areas only.

**Comments:**

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Sensors wired remote from the Controller and installed in a Hazardous Area are to be Explosion Proof and detailed installation drawings are to be submitted for review.

**Notes/Drawing/Documentation:**

Drawing No. 72-2110RK Rev C, 72-2110RK Rev C, Revision: C,

Drawing No. 72-2110RK-01 Rev A, 72-2110RK-01 Rev A, Revision: C,

Drawing No. 72-2110RK-02 Rev D, 72-2110RK-02 Rev D, Revision: D

Drawing No. 72-2110RK-03 Rev A, 72-2110RK-03 Rev A, Revision: A

Drawing No. Beacon110\_web, PDA ABeacon110\_web, Revision: -

Previous PDA Document List

Document No. RKI Instruments Project 70162883, CSA Report 1876100, Dated 06 June 2018, Pages: 18

**Terms of Validity:**

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**STANDARDS**

**ABS Rules:**

2023 Rules for Conditions of Classification, 1-1-4/7.7, 1-1-A3,1-1-A4, which covers the following:

2023 Rules for Building and Classing Marine Vessels: 4-8-3/1.11.1, 4-8-3/Table 2;

2023 Rules for Conditions of Classification, Offshore Units and Structures, 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2023 Rules for Building and Classing Mobile Offshore Units: 4-3-3/3.1.1(a), 4-3-3/Table 1

**National:**

CSA C22.2 No. 61010-1-12 (R2022)

UL Std. No. 61010-1 (3rd Edition 2012)

**International:**

NA

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA