



CERTIFICATE NUMBER
17-HS1611335-PDA

DATE
21 Mar 2017

ABS TECHNICAL OFFICE
Houston ESD - Electrical

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
RKI INSTRUMENTS, INC.

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: **61-1003RK-CH4, 61-1003RK-HC, 61-1004RK-02,-03,-05 & -10, 61-1007RK-02,-03,-05 & -10**


This Product Design Assessment (PDA) Certificate 17-HS1611335-PDA, dated 21/Mar/2017 remains valid until 20/Mar/2022 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/Consultant

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).

RKI INSTRUMENTS

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UNION CITY CA

United States 94587

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Email: sales@rkiinstruments.com

Web: rkiinstruments.com

Tier: 3 - Type Approved, unit certification not required

Product: Gas Detector

Model: 61-1003RK-CH4, 61-1003RK-HC, 61-1004RK-02,-03,-05 & -10, 61-1007RK-02,-03,-05 & -10

Intended Service:

Marine & Offshore Application

Description:

LEL Infrared Sensor - Direct Connect Sensor w/ Junction Box: 61-1003RK-CH4, 61-1003RK-HC.

CO2 Infrared Sensor - Direct Connect Sensor w/ Junction Box: 61-1004RK-02, -03, -05 & -10. Hazardous Areas-Explosion proof for Class I, Division 1, Groups B, C & D atmospheres.

CO2 Infrared Sensor - Direct Connect Sensor w/ Junction Box: 61-1007RK-02, -03, -05 & -10. Non Explosion Proof.

Rating:

Measuring Range:

0 to 100% LEL(61-1003RK-CH4, 61-1003RK-HC) - LEL Sensor;

0-5000 ppm (61-1004RK-02) - CO2 Sensor

0-5.0% Vol (61-1004RK-03) - CO2 Sensor

0-50.0% Vol (61-1004RK-05) - CO2 Sensor

0-100.0% Vol (61-1004RK-10) - CO2 Sensor

Temperature: -20 °C to 50 °C

See attached ".pdf" for additional details.

Service Restriction:

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.

Combustible gas detectors are not tested to performance requirement in accordance with recognized standards by independent third party laboratory.

Notes/Drawing/Documentation:

UL Report No E253828 Issued 29 Oct 2005;

Brochure FO20-1606 - Direct Connect Sensors;

Terms of Validity:

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STANDARDS**ABS Rules:**

Rules for Conditions of Classification, Part 1 - 2017 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2017 Steel Vessels: 4-8-3/1.11.1, 4-8-3/Table 2, 4-8-4/27;

2017 Steel Vessels Under 90 Meters (295 Feet) in Length: 4-6-3/3.1.1(a), 4-6-3/Table 1, 4-6-3/11.1.1

2017 Offshore Support Vessels: 4-8-3/1.11.1, 4-8-3/Table 2, 4-8-4/29.1;

Rules for Conditions of Classification, Part 1 - 2017 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2017 Mobile Offshore Drilling Units: 4-3-3/3.1.1(a), 4-3-3/9.1.1

National:

UL Standard 1203 (Third Edition), Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for use in Hazardous (Classified) Locations

C22.2 No. 30-M1986 (2012), Explosion-Proof Enclosures for Use in Class I Hazardous Locations

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA