



CERTIFICATE NUMBER
18-HS1744233-PDA

DATE
28 Jun 2018

ABS TECHNICAL OFFICE
Houston ESD - Piping

CERTIFICATE OF Design Assessment

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

SIERRA MONITOR CORPORATION

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: **IT Series 5100-02-IT, 5100-05-IT, 5100-28-IT**

This Product Design Assessment (PDA) Certificate 18-HS1744233-PDA, dated 28/Jun/2018 remains valid until 27/Jun/2023 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

Dustin De Los Santos

Dustin De Los Santos
Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Codes, 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 (2016)

AB258(01.10)

SIERRA MONITOR CORPORATION

1991 TAROB CT

MILPITAS CA

United States 95035

Telephone: 408-262-6611

Fax: 408-262-9042

Email: sales@sierramonitor.com

Web: www.sierramonitor.com

Tier: 2 - PDA Issued

Product: Gas Detector

Model: IT Series 5100-02-IT, 5100-05-IT, 5100-28-IT

Intended Service:

Offshore Applications - Combustible and Toxic gas area monitoring of Offshore Platforms.

Description:

Combustible Gas Detector, Catalytic Bead, Model 5100-02-IT

Toxic Gas Detector, Electrochemical, Model 5100-05-IT

Combustible Gas Detector, Infrared, Model 5100-28-IT

Rating:

Model 5100-02-IT

Operating Range: -40 to 176 °F (-40 to 80 °C)

Relative Humidity: 0-99%

Input: voltage: 24V DC nominal 10-30V DC

Output: 4-20 mA

Explosion proof, Class 1, Div. 1, Groups A, B, C, D

Class I, Zone 1, Group IIC, IP66, IP65, NEMA 4X

Model 5100-05-IT

Operating Range: -40 to 140 °F (-40 to 60 °C)

Relative Humidity: 15-90%

Input: voltage: 24V DC nominal 10-30V DC

Output: 4-20 mA

Explosion proof, Class 1, Div. 1, Groups A, B, C, D

Class I, Zone 1, Group IIC, IP66, IP65, NEMA 4X

Model 5100-28-IT

Operating Range: -40 to 167 °F (-40 to 75 °C)

Relative Humidity: 0-95%

Input: voltage: 24V DC nominal 10-30V DC

Output: 4-20 mA

Explosion proof, Class 1, Div. 1, Groups A, B, C, D

Class I, Zone 1, Group IIC, IP66, IP65, NEMA 4X, T6

For detail specification see attached "pdf" file

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.

Notes/Drawing/Documentation:

4539 Sierra Monitor ISO 9001 Certificate Mar 2017-signed;

Declaration of conformity Dated May 07, 2018;

FM Approval Report, Project No. 3047243, Product Name 5100-02-IT, Approval Dated 18 September 2014;

FM Approval Report, Project No. 3047239, Product Name 5100-05-IT, Approval Dated 20 March 2015;

FM Approval Report, Project No. 0003047241, Product Name 5100-28-IT, Approval Dated 30 July 2014;

FM Approval Report, Project No. 0003056096, Product Name 5100-28-IT, Approval Dated 03 September 2015

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Previous Review:

Supporting Data:

Dwg No. KSEN5006-B, Rev. Module 5100-28-IT-A1 Outline Dimensions;

American Systems Registrar "ASR" Certificate No. 4539-1 (ISO 9001:2008) expires 25 Apr. 2014;

Product Specification Sheet, Sentry Gas Sensor Module/Combustible - Catalytic Bead/Toxi Gas Sensor Module, Rev. 10/12, 2 shts;

Terms of Validity:

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STANDARDS

ABS Rules:

2018 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/13, 4-8-4/27

National:

FM Approval Project No. 3047243 Product Name 5100-02-IT, Approval Dated 18 September 2014, Class 3600, 3615, 6310, 6320;

FM Approval Project No. 3047239, Product Name 5100-05-IT, Approval Dated 20 March 2015, Class 3600, 3615, 3810;

FM Approval Project No. 0003047241, Product Name 5100-28-IT, Approval Dated 30 July 2014, Class 3600, 3615, 6310, 6320;

FM Approval Project No. 0003056096, Product Name 5100-28-IT, Approval Dated 03 September 2015, Class 3600, 3615, 6310, 6320

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA