

CERTIFICATE NUMBER19-HS1876172-PDAEFFECTIVE DATE23-Jul-2019EXPIRATION DATE22-Jul-2024ABS TECHNICAL OFFICELondon Engineering Dept.

## **CERTIFICATE OF**

# **Product Design Assessment**

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

# **AUTRONICA FIRE AND SECURITY AS**

located at

P.O. BOX 5620, 7483 TRONDHEIM, TRONDHEIM, Norway, 7483

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 Fire Detection and Alarm System

Model AUTROPRIME

This Product Design Assessment (PDA) Certificate remains valid until 22-Jul-2024 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

Theodoros Chatzigkaidas, Senior 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)

Certificate of Product Design Assessment Rev.2

AUTRONICA FIRE AND SECURITY AS P.O. BOX 5620 7483 TRONDHEIM TRONDHEIM Norway 7483 Telephone: + 47 90 90 55 00 Fax: + 47 73582501 Email: Info@autronicafire.no Web: www.autronicafire.no

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

#### Product: Fire Detection and Alarm System Model: AUTROPRIME

## Intended Service:

Autroprime Interactive Fire Detection System for use on Vessels and Offshore Facilities for fire detecting, monitoring, alarming and controlling functions.

#### **Description:**

Autroprime Interactive Fire Detection System consists of the following modules which can be connected via a redundant panel bus. The maximum number that can be connected to the panel bus is limited to 8 modules (additional displays or mimic drivers):

- BS-200M (Main Control Panel): Can be a stand-alone control panel or the master panel with additional modules connected to the panel bus. Maximum of 4 detection loops can be connected, 127 units per loop giving a total maximum of 508 loop units.

- BS-210 (Operator Panel): This module has functions such as control, monitoring and acknowledging alarms etc and can be integrated to the control panel or be mounted separately outside the cabinet.

- BS-211 (Repeater Panel): Identical to operator panel BS-210 with the exception of an alphanumeric keyboard.

BU-210 (Fire Brigade Panel): Can be used to reset alarms, mute internal buzzer, silence sounders/bells etc.
BV210 (Information Panel): All alarm handling and system events are monitored and most significant events are

- BV210 (Information Panel): All alarm handling and system events are monitored and most significant events are shown in the display.

- BUR-200 (Mimic Driver): Capable of driving 32 LEDs with series resistors on a mimic panel for additional indications of alarms.

- BC-250 (Autroprime Controller Unit): The BC-250 is an integrated Controller Unit for small-to-medium sized Autroprime Installations. In Combination with Operator Panel BS-210 it can serve as a standalone panel. The BC-250 is delivered with four detection loops.

#### **Rating:**

Power supply: 110/220V AC (BS-200M, BC-250) 18-30 VDC (BS-210, BS-211, BU-210, BV-210, BUR-200) Protection Class: IP32

#### Service Restriction:

1) Main panels are to be located in a continuously manned space and all panels are to be installed in non-classified locations.

2) Fire detectors are not covered in this PDA certification.

3) Unit Certification is not required for this product. Each configuration and individual application is to be specifically approved. However, Unit Certification will be required if the installation of the system is associated with a specific class notation (ACC, ACCU, DPS), as per 4-9-3/Table 2, items 3.5, 3.6 and 3.7 as well as items 4.1 and 4.2 of the Marine Vessels Rules.

#### **Comments:**

1) Intra-system integration testing is to be performed between system and sub-system software modules before being integrated on board to confirm that software and hardware it controls interact and function properly together and that software system react properly in case of failures.

2) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

3) Each particular application and installation is to be specifically approved.

#### **Notes/Drawing/Documentation:**

Drawing No. Nemko E18299, Nemko E18299, Revision: -, Pages: 1 Drawing No. bc250\_cgb, bc250\_cgb, Revision: -, Pages: 1 Drawing No. bs200m\_cgb x, bs200m\_cgb, Revision: -, Pages: 1 Drawing No. bs211\_cgb x, bs211\_cgb, Revision: -, Pages: 1

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Drawing No. bu210\_cgb x, bu210\_cgb, Revision: -, Pages: 1 Drawing No. bur200\_cgb x, bur200\_cgb, Revision: -, Pages: 1 Drawing No. bv210 cgb x, bv210 cgb, Revision: -, Pages: 1

#### **Terms of Validity:**

This Product Design Assessment (PDA) Certificate 19-HS1876172-PDA, dated 23/Jul/2019 remains valid until 22/Jul/2024 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.

#### **STANDARDS**

#### **ABS Rules:**

2019 Rules for Conditions of Classification, Part 1: 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

- Steel Vessels Rules (2019): 4-7-3/11, 4-9-3/Table 1 & Table 2, 4-9-3A2/25 - Marine Vessels Rules (2019): 4-7-3/11, 4-9-3/Table 1 & Table 2, 4-9-3A2/25

2019 Rules for Conditions of Classification, Part 1 - Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

- Mobile Offshore Drilling Unit Rules (2019): 5-2-5/1.1, 6-1-8/9 and 6-1-8/Table 1 - Mobile Offshore Unit Rules (2019): 5-2-5/1.1, 6-1-8/9 and 6-1-8/Table 1

- Facilities On Offshore Installations Rules (2019): 3-8/7

### National:

NA

#### International:

IACS E10 (Rev. 6 - 2014) SOLAS II-2/7, as amended in force (2016) IMO FSS Code Chapter 9 (2015) IEC 60092-504 (2016) IEC 60533 (2015) IEC/EN 60945 (2008) EN 54-4 (1998)

**Government:** NA

EUMED: 10 NA

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OTHERS: