



CERTIFICATE NUMBER	25-0214094-PDA
EFFECTIVE DATE	31-Mar-2025
EXPIRY DATE	30-Mar-2030
ABS TECHNICAL OFFICE	Yokohama Engineering Services

# 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

**STALSBERGVEIEN 9, , NOTTEROY, Norway, N-3128**

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 Sampling System  
**Model:** OGS 3.11/OGS 3.1/OGS 2.1  
**Endorsements:**  
**Tier:** 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 30/Mar/2030 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
Motohiro Tamura,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 ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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**Tier: 2 - PDA Issued**

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**Product:** Gas Sampling System  
**Model:** OGS 3.11/OGS 3.1/OGS 2.1  
**Endorsements:**

**Intended Service:**

Sampling Gas detection system for use on ABS classed vessels and offshore facilities in accordance with the listed ABS Rules and International Standards.

**Description:**

The OGS is gas detection and alarm system detecting oxygen, flammable and toxic gases.

The system comprises either an OGS 2.1 or OGS 3.1 or OGS 3.11 gas tight sampling and control cabinet, electronics, power supplies, multi channel sampling piping, main and sampling pumps, flow meters, solenoid control valves, flame arresters and other components.

High / low gas and system alarms are relayed to remote alarm stations if required.

The OGS is used mainly for cargo pump room applications and includes controls of the alarm indication in the pump room.

**Rating:**

Nominal power supplies: 115/230 V AC, 50/60 Hz;

Operating temperatures: 0 to 55 Degree C (With IR sensor);

Safe certificate category of Flame arrestor: Ex db IIC T6 Gb, Type of protection: Flameproof enclosures "d"  
IECEX Certificate of Conformity Certificate No. IECEX PRE 14.0054X, Issue 2

**Service Restriction:**

- Unit Certification is not required for this product. Each configuration and individual application is to be specifically approved.

- The following is applicable to the computer-based system in accordance with 4-9-3 of the Marine Vessel Rules;

(a) The assigned system Category II

(b) The required evidence to be kept by the manufacturer in accordance with 4-9-3/Table 3 of the Marine Vessels Rules

(c) The tests required to be witness by ABS surveyor in accordance with 4-9-3/Table 5 of the Marine Vessels Rules - 4-9-13 of the Marine Vessels Rules (IACS UR E27 Rev.1 Sep 2023 Cyber resilience of on-board systems and equipment) is out of this PDA scope.

These requirements are to be reviewed in each project on actual plan approval phase.

- 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.

- Sensor installed in hazardous area is to be specifically approved. Ex certificates with the most recent applicable standard has to be provided each and every project.

**Comments:**

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

- Each vessel configuration and external connection is to be specifically reviewed.

**Notes/Drawing/Documentation:**

Drawing No. E19137.00, Test Report EMC IACS E10\_2018, Nemko Group, Norway, Revision: 00, Date 01.08.2019, Pages: 48

Drawing No. 001-JE 000 000, Development Procedure J2 EN, Revision: J2, Date 15.12.2018, Pages: 17

Drawing No. 359487, Ex Audit Report, Nemko Norway, Revision: 00, Date 22.08.2018, Pages: 08

Drawing No. 3010-08-0288, Environmental Verification Test Report, The National Institute of Technology, Norway, Revision: 00, Date 24.11.2008, Pages: 14

Drawing No. 2004-3038, Mechanical Testing of Gas Detector System, DET NORSKE VERITAS, Norway, Revision: 01, Date 03.09.2004, Pages: 10

Drawing No. FAT OGS 2.1, FACTORY ACCEPTANCE TEST, Pages: 02

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Drawing No. FAT OGS 3.1, FACTORY ACCEPTANCE TEST, Pages: 03

Drawing No. FAT OGS 3.11, FACTORY ACCEPTANCE TEST, Pages: 02

Drawing No. 0568-50-9971-G23-0001, FAT Procedure, Pages: 39

Drawing No. IECEX PRE 14.0054X, IECEX Certificate of Conformity, DNV Nemko Presafe AS, Norway, Revision: 02, Date 20.11.2019, Pages: 04

Drawing No. Risk analysis Gas Sampling system (FMEA), Revision: 03, Pages: 01

Drawing No. --, Presafe 14 ATEX 5457X Issue 2, signed, Revision: 2, Pages: 4, dated 20 November 2019,

Drawing No. E19137.00, 372457 TRF EMC IACS E10\_2018 OGS 2.1\_3.1\_3.11, Revision: 0, Pages: 48, dated 1 August 2019, issued by Nemko

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate remains valid until 30/Mar/2030 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).

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**STANDARDS**

**ABS Rules:**

- Marine Vessel Rules (2025): 1A-1-4/7.7, 1A-1-A3, 1A-1-A4, 4-6-4/5.7.2, 4-8-3/1.7, 4-8-3/1.9, 4-8-3/1.11, 4-9-3/3, 4-9-3/5, 4-9-3/7 Table 1 (Cat.II), 4-9-3/15, 4-9-9/13 and 4-9-9/Table 1 & 2, 5C-2-3/17.2.4, 5C-2-3/17.5.2, 5C-2-3/20.5;
- Offshore Units (2025): 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, 4-3-1/3.7, 4-3-1/9, 4-3-1/11, 4-3-1/15;
- High Speed Crafts (2025): 1C-1-4/11.9, 1C-1-A2, 1C-1-A3, 4-7-9/7, 4-7-9/15;

**National:**

NA

**International:**

IACS UR E10 Rev.9: Aug 2023

IEC 60079-0 Ed 7.0: 2017

IEC 60079-1 Ed 7.0:2014

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA