# **Type Approval Certificate**



## [Gas Detector Monitoring Unit]

| Initial Approval<br>Manufacturer | 21 November 2024  |
|----------------------------------|---|
| Manufacturer                     | GasDNA Co., Ltd.<br>101, Bukhang-ro 193beon-gil, Seo-gu, Incheon, Korea |
|                                  | To r, Bukhang-to Tesbeon-gil, Geo-gu, incheon, Kolea                    |
| Product Description              | Model : GMS-2500  |
|                                  | ″See Appendix 1 ″   |
|                                  |   |
|                                  |   |

**Approval Condition** 

" See Appendix 1 "

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows. Pt. 6, Ch. 2, Art. 301 of the Rules for Classification of Steel Ships.

This Certificate is valid until 20 November 2029 Issued at Busan, Korea on 21 November 2024



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "http://e-cert.krs.co.kr" by using the tracking No(ME24055366264) and certificate No.(INC24252-AE004).



**KOREAN REGISTER** 

*General Manager of Marine & Ocean Equipment Team* 

Note : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.

2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer

Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
 Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the cardinate or specified rules.

the requirements as amended

## Product Description and/or Approval Condition

Date of Issue : 21 November 2024

### A. Product Description

#### 1. Product Specification

1) System Description (Model : GMS-2500)

The GMS-2500 is multi-point type gas detector signal receiving unit which can be connected up to thirty-three (33) detectors. And the GMS-2500 is consist of Power Unit (Common Alarm Unit) and Channel Control Unit (Receiver).

- Power Supply
- : 220VAC, 60Hz : 4 ~ 20mA / RS-485 (Option) - Output Signal
- Density Indication : LCD Display (PPM / %LEL / %)

#### 2. Approved Drawings and Documents

- 1) Approved Document
  - Drawing No. DNADT-GMS-2500-01 Rev. 0
    Drawing No. DNADT-GMS-2500-02 Rev. 0
    Drawing No. DNADT-GMS-2500-03 Rev. 0
    Specification for GMS-2500 Rev. 0

#### 3. Test Reports, etc.

- 1) Test Reports

  - Report No. SGS-R24-2207-EN00 dated 2024-10-08 issued by SGS Korea (Dongtan Lab.)
    Report No. SGS-R24-2211-EN00 dated 2024-10-08 issued by SGS Korea (Dongtan Lab.)
    Report No. F690501-RF-EMC002806 dated 2024-10-08 issued by SGS Korea (Gunpo Lab.)

  - Performance Test Report witnessed by this Society Surveyor. 2024-11-01

#### **B.** Approval Condition

#### 1. Application & Limitation

- This approval is granted on the basis of the test reports and the approved documentation.
  Degree of protection is to be complied with Rule Pt. 6 Ch. 1 Sec. 2 201. 2. (5).
- The manufacturer is to inform this Society of all kinds of revisions of the equipment including the major changes of software. If the changes are recognized to affect functionality of the approved quipment, type tests to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.
- 4) When this system is to be installed in the vicinity of a standard or a steering magnetic compass, it should have a minimum safe distance 5 m or more at which it may be mounted from such compasses.

#### 2. Individual Product Cert. and Drawing Approval Requirement

1) Individual Product Certification is not required.

#### 3. Marking

1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

#### 4. Others

1) Test condition

| Test                 | Condition  | Remark |
|----------------------|--|--------|
| EMC                  | All locations including the bridge and deck zone |        |
| Temperature          | −25 ~ +70°C                                      | _      |
| Vibration            | Acceleration $\pm 0.7g$                          | _      |
| Degree of protection | IP2X   | _      |
| Salt mist            | Not Applied                                      |        |

< End of Certificate >