



# Type Approval Certificate

[ Gas Detector ]

**Initial Approval** 19th January, 2016  
**Manufacturer** GasDNA Co., Ltd.  
 101, Bukhang-ro 193beon-gil, Seo-gu, Incheon, Korea  
**Product Description** Model : DA-100

“ 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, Steel Ships and EN 60079-29-1

This Certificate is valid until 18th January, 2026

Reissued at Busan, Korea on 31st August, 2021



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(ME21021857754) and certificate No.(INC24252-AE001).



**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.
  3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
  4. 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 requirements as amended.

## Product Description and/or Approval Condition

Date of Issue : 31st August, 2021

### A. Product Description

#### 1. Product Specification

- 1) Power supply : DC 24V
- 2) Detection principle : Catalytic
- 3) Gas sampling : Diffusion
- 4) Measurement range : 0 ~ 100% LEL
- 5) Target gas : Combustible
- 6) Output signal : 4 ~ 20mA
- 7) Sensor model : NAP-100AM
- 8) Installation : Wall or Pipe Mounting
- 9) Casing material : Cast Aluminum Alloy
- 10) Ex-proof type : Ex d IIC T5 / Ex db IIC T6 Gb / Ex tb IIIC T85°C Db
- 11) Ingress protection : IP66
- 12) Measuring gas
 

Acetaldehyde,	Acetic acid,	Acetone,	Acetylene,	Bezene,
Butane,	Chloro benzene,	Cyclohexane,	Di-Methylethar,	Ethane,
Gasoline,	Heptane,	Hydrogen,	Iso-butane,	Iso-propyl alcohol,
Methane,	Methyl alcohol,	Methyl bromide,	Naphthalene,	Octane,
Pentane,	Phenol,	Propane,	Propylene,	Propylene oxide
Thinners,	Toluene,	Vinyl acetate,	Vinyl chloride,	Xylene,
Hydro Carbon				

#### 2. Approved Drawings and Documents

- 1) Drawing No. DNADR-DA-100-001 (2004. 10. 26), DNADR-DA-100-002 (2004. 10. 26),  
DNADR-DA-100-003 (2004. 10. 26), DNADR-DA-100-004 (2004. 10. 26),  
DNADR-DA-100-005 (2004. 10. 26), DNADR-DA-100-006 (2004. 10. 26),  
DNADR-DA-100-007 (2004. 10. 26), DNADR-DA-100-008 (2004. 10. 26)
- 2) Test plan No. QC-20-01 (2020. 11. 30), QC-21-01 (2021. 04. 05)

#### 3. Test Reports, etc.

- 1) Test Reports
  - SGS-R15-2294-EN00 (2015. 12. 28), SGS-R15-2295-EN00 (2015. 12. 28),  
SGS-E15-0106\_1 (2020. 11. 30), SGS-E15-0111 (2015. 12. 17),  
F690501-RF-EMH001046\_1 (2021. 01. 21), SGS-R21-0290-EN00 (2021. 02. 02),  
F690501-RF-EMH001404 (2021. 08. 25), SGS-R21-1993-EN00 (2021. 08. 26)
  - DNAQP-801-03 (KR-15-001~015) (2015. 09. 16~11. 12, 12. 21~12. 26, 12. 29)
  - QC-20-02 (2021. 01. 21~01. 27, 01. 29, 02. 01, 02. 02)

### B. Approval Condition

#### 1. Application & Limitation

- 1) This approval is granted on the basis of the test reports and the approved documentation.
- 2) The manufacturer should inform this Society of all kinds of revisions of the equipment. If the changes are recognized to affect functionality of the approved equipment, type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.
- 3) Degree of protection shall be complied with Rule Pt. 6 Ch. 1 Sec. 2 201.2. (5).
- 4) The product is approved only for combustible gas detection.
- 5) Explosion-proof certification by a notified/recognized Certification Body is not covered by this certificate. Ratings and Special Conditions for Safe Use in hazardous areas are to be obtained from the relevant valid Ex-Certificate.
- 6) When this system is to be installed in the vicinity of a standard or a steering magnetic compass, it should have the 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.

**Product Description and/or Approval Condition**

Date of Issue : 31st August, 2021

**4. Others**

1) Test condition (IACS UR E10 Rev.8 basis)

Test	Condition	Remark
EMC	All locations including the bridge and deck zone	-
Temperature	-25 ~ +70°C	-
Vibration	Acceleration $\pm 0.7g$	-
Salt mist	Applied	-
Ingress protection	IP66	-

&lt; End of Certificate &gt;

