

TYPE APPROVAL CERTIFICATE

Certificate No: **TAA00001R4**Revision No:

This is to ce	rtify:	
That the General	al Alarm System	
with type design GAS 3000	ation(s)	
beschränl	Decksmaschinen und Aukter Haftung n-Klecken, Niedersachsen, Gern	utomation Vertriebsgesellschaft mit
is found to comp DNV rules for	oly with classification – Ships, offshore units, a	and high speed and light craft
Application :	:	
Product(s) app	roved by this certificate is/are accepted	d for installation on all vessels classed by DNV.
Temperature Humidity Vibration EMC Enclosure	B B A B Required protection according to DN	V Rules shall be provided upon installation on board
Issued at Hamb	urg on 2023-06-23	
This Certificate i	s valid until 2028-06-22 . Hamburg	for DNV
Approval Engineer: Didier Girardin		Joannis Papanuskas
		Head of Section

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251 Revision: 2022-12 www.dnv.com Page 1 of 3

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-027620-2** Certificate No: **TAA00001R4**

Revision No: 1

Product description

General Alarm System (GAS 3000)

Function: Manual and automatic generation of General Alarm and Abandon Ship Signal Outputs:

1 pot. free contact NC/NO (manually given signals), 1A 30VDC

1 pot. free contact NC/NO (manual & automatic. given signals), 1A 30VDC

1 pot.free contact NC/NO (continues signal contact), 1A, 30V DC

1 pot.free contact NC/NO for unit failure, 1A, 30V DC

Inputs:

IN 1,2,3, Inputs for external activation of "General alarm" Dimension 64 x 136 x 100 mm (Housing)

72 x 144 mm Front plate

Application/Limitation

none

Type Approval documentation

See Annex

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021

Marking of product

The products to be marked with:

- model name
- manufacturer name
- serial number

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE

Form code: TA 251 Revision: 2022-12 www.dnv.com Page 2 of 3



Job Id: **262.1-027620-2** Certificate No: **TAA00001R4**

Revision No:

ANNEX

hidden

Type Approval documentation

Test Reports

Paconsult No. 07-1746, EMV Services No. 07/7076-4, ES Elektronik Nr.08/0101

IACS E10 rev.07:

TÜV NORD EMC Laboratory Test report No. 23115-1-R00 Dated 21.06.2023

Form code: TA 251 Revision: 2022-12 www.dnv.com Page 3 of 3