



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA00002HS
Revision No:
1

This is to certify:
that the Monitoring System

with type designation(s)
Binary Alert System NAS24

issued to
sm electrics GmbH services & more
Schönberg (Holstein), Schleswig-Holstein, Germany

is found to comply with

DNV rules for classification – Ships
DNV rules for classification – High speed and light craft

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Temperature	B
Humidity	B
Vibration	A
EMC	A/B*, *see Application/Limitation
Enclosure	Required protection according to DNV Rules shall be provided upon installation on board

Issued at **Hamburg** on **2024-11-05**

for **DNV**

This Certificate is valid until **2029-11-04**.

DNV local unit: **Hamburg – CMC North/East**

Approval Engineer: **Jörg Rebel**

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.

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 USD 300 000.

Product description

The Binary Alert System NAS24 consists of the following components:

- Operating Panel NAS24-M02, Software Vers. NAS_24_190522
- Control Unit NAS24-M01, Software Vers. NAS_24_190522

Approval conditions

The following documentation of the actual application is to be submitted for approval in each case:

- Reference to this Type Approval Certificate
- System block diagram
- Power supply arrangement (may be part of the System block diagram)

Product certificate

As long as the units are covered by the Type Approval, a product certificate according to Pt.4 Ch.9 Sec.1 will not be required. Correct configuration and set up for each delivery to be tested during commissioning after installation onboard and witnessed by attending DNV surveyor. After the successful testing the clause for software control will be put into force.

Software control

All changes in software are to be recorded as long as the system is in use on board. Documentation of major changes is to be forwarded to DNV for evaluation and approval before implemented on board. Certification of modified functionality may be required for the particular vessel.

Application/Limitation

EMC class B: only with filter type Epcos B84113-C-B30.

24 V power supply lines are to be protected by Dehn Blitzductor, order no. 918 422

Type Approval documentation

DNV No.	Document ID	Rev.	Description
11	FAT-NAS24-20190923	2019-09-23	Report: FAT Protocoll 20190923
9	1035	2019-10-21	BSH, Compass Safe Distance Certificate
8	NAS24 user manual	2024-09-26	Manual: Binary Alert System NAS 24, user manual

Tests carried out

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

For the bridge mounted components the 'Compass safe distance' was measured according to section 11.2 of IEC 60945, 4th edition (2002).

Components type approved with following certificates:

SIMATIC S7-1200: TAA000000K; HMI Panel KTP700 Basic: TAA0000341

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- Compass safe distance
- power supply ratings

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



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- 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