



Certificate No. 03-002107/031812

TYPE APPROVAL CERTIFICATE

This is to certify that this product complies with the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products.

TYPE AND DESCRIPTION OF PRODUCT:

Alarm & Monitoring System NORIMOS 3500 (N3500/NS3500)

MANUFACTURER:

Shanghai NORIS-SIBO Automation Co. Ltd.
G/F, No. 8 Building South
No. 2716 Pingliang Road, Yangpu
Shanghai, 200090
P. R. CHINA

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

Croatian Register of Shipping: Rules for the classification of ships,
Part 12. – Electrical Equipment, Part 13. – Automation

IACS UR E10

FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.

APPROVAL IS VALID UNTIL: 2029-02-16

Place and date: Split, 2025-02-14 Seal

Marinko Popović, dipl.ing.

NOTE: This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Croatian Register of Shipping of any modification or changes to the product in order to obtain a valid certificate.

DETAILED PRODUCT DESCRIPTION:

Engine room alarm, measurement and control system on marine vessels consists of:

- **AMS SAU 800x800**
- **Gateway** : **GATEWAY**
- **Binary measuring module** : **STM7-IN32**
- **I/O module** : **STM7-INOUT**
- **Integrated I/O module** : **STM7-AINOUT**
- **Current/Voltage measuring module** : **STM7-I/V1**
- **Thermal resistance measuring module** : **STM7-PT100**
- **Thermocouple measuring module** : **STM7-MV1**
- **Binary measuring module** : **STM7-SAFT**
- **Analog output module** : **D/A**
- **Extend Alarm panel (with/without Fire alarm)** : **N3510 / N3511**
- **Color LCD display (with/without Fire alarm)** : **N3520 / N3521**
- **Industrial computer** : **TANK-600**
- **UPS** : **V-1000**
- **TP-LINK** : **TL-SF1008+**
- **Display** : **Philips 17"**
- **Printer** : **LQ-300K+II**
- **Monitor Unit** : **N3500-MU-220-17**
- **Monitor Unit** : **N3500-MU-220-19**
- **Monitor Unit** : **N3500-MU-220-21**
- **Monitor Unit** : **N3500-MU-220-23**
- **Switch** : **N3500-HUB-SF1016D**
- **Keyboard** : **N3500-KB-1**

Software ver.:

- **TANK-600: REV 2.1**
- **GATEWAY: NS3500 GW-00**

APPLICATION / LIMITATIONS:

System is approved for use on board vessels granted with automation notations – AUT1, AUT2 and AUT3.

Product certification is required, supervision during manufacture and testing in the presence of CRS surveyor.

Prior to product certification, documentation that needs to be submitted to CRS is listed in Rules for Classification of ships, Part 12, Chapter 2.10, Annex: Documents for the Register and test attendance.

In addition to the above, the following documentation also must be submitted:

- Detailed electrical drawings
- List of alarm and measurement points (I/O list)

Type approval covers hardware and software listed in Product description. In case of software update, CRS is to be notified.

TYPE APPROVAL DOCUMENTATION:

- **Test report** : **A15-053-ZC** - **SITHIAS, dated 20.01.2016.**
- **Test report** : **A16-024-WT** - **SITHIAS, dated 07.12.2016.**
- **Test report** : **A17-001-WT** - **SITHIAS, dated 23.01.2017.**
- **Drawing No.** : **N3500 YJ** - **Alarm Monitoring System, Rev.02**
- **Drawing No.** : **NS3500 YJ** - **Alarm & Monitoring System, Rev.01**
- **Document** : **NSB-TD-1002-EN** - **N3500 FMEA, Version 1.00**
- **Test report** : **J22-012-ZC-01** - **SITHIAS, dated 16.01.2023.**
- **Test report** : **J22-012-ZC-02** - **SITHIAS, dated 16.01.2023.**
- **Test report** : **2023-060** - **China Shipbuilding Industry Environment and Reliability Test Centre, dated 27.05.2024.**

MARKING OF PRODUCT:

In accordance with IEC60945 – Marking and identification (The Manufacturer and Type Designation of the product, serial number, date of manufacture, safe distance to magnetic compass, supply voltage, software version...).

CONDITIONS FOR CERTIFICATION:

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to CRS for evaluation and approval before being installed.

- END OF CERTIFICATE -