

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Fire Alarm Central Unit**

with type designation(s)

Fire Alarm Panel VAPW501-R/U; Fire Indicator VICW501-R/U; Timer FYC512

Issued to

Nohmi Bosai Ltd.**Chiyoda-ku, Tokyo, Japan**

is found to comply with

DNV GL rules for classification – Ships and offshore units**Application :****Location classes:****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Type	Temperature	Humidity	Vibration	EMC	Enclosure
VAPW501-R/U VICW501-R/U	A	B	A	B	*
All other units	A	B	A	B	A

*Required protection according to DNV GL rules to be provided upon installation on board

This Certificate is valid until **2020-12-31**.Issued at **Busan** on **2016-04-04**for **DNV GL**DNV GL local station: **Yokohama**Approval Engineer: **Byoung So Lee**

Baeg Soon Choi
Head of Section

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.

Product description

Fire Indicators: VICW501-R/U
Timer: FYC512
Fire Alarm Panel: VAPW501-R/U with software as follows:
Main control unit, SHMU: version 1.0
Zone unit, SHSL: version 0.2

Application/Limitation

The Type Approval covers hardware and software listed under Product description.

The fire indicators and timer unit shall be used only in conjunction with DNV approved NOHMI BOSAI Fire Alarm Unit.

The timer unit shall be used only when "Out of Operation" light is connected on bridge.
System Application to be in accordance with relevant parts of the Rules.

Instruction Manual covering each specific installation shall be included with delivery to vessel.

For each delivery of fire alarm panels, the following documentation of the specific system shall be submitted for approval:

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

As long as the units are covered by the Type Approval, a product certificate according to Pt.4 Ch.9 Sec.1 A202 will not be required. Correct configuration and set up for each delivery to be tested during commissioning after installation.

Clause for application software control

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 DNV for evaluation and/or approval.

Major changes in the software are to be approved before being installed in the computer.

The software versions of Fire Alarm Panel VAPW501-R/U are of format X.Y where "X" denotes major revisions which affect type approved functionality. Such changes will require certification of application for each delivery. Minor revisions not affecting type approved functionality are denoted by the format "Y".

Type Approval documentation

Job Id: **262.1-002531-5**
Certificate No: **TAA00000D7**

Periodical assessment

The scope of the retention/renewal survey 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 survey 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

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE