



Certificate no.:
TAA00003MF

TYPE APPROVAL DESIGN CERTIFICATE

This is to certify:

that the Speed log (SDME)

with type designation(s)

SAL Navigation JLN900 Speed log system

issued to

SAL Navigation AB (Japan Radio Co.,Ltd.)

Hägersten, Sweden (Nakano Central Park East 4-10-1 Nakano, Nakano-ku Tokyo 164-8570 Japan

is found to comply with

DNV rules for classification – Ships Pt.6 Ch.5 Sec.21 Cyber security [2.2] Exclusion based on negligible risk

Application:

This type approval covers the criteria for exclusion from the mandatory application of Pt.6 Ch.5 Sec.21 Cyber security, subject to conditions stated in this certificate.

Issued at **Høvik** on **2025-05-12**

This Certificate is valid until **2027-05-11**.

for **DNV**

DNV local unit: **AC Europe Digital Ship Systems**

Approval Engineer: **Vinay Bhardwaj**

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 300,000 USD.

Product description

1.1 The following components of the Japan Radio Co.,Ltd.– JLN-900 Speed log system are covered:

Onboard components:

Component Description	Type Designation (part number)	OS/Application SW version	Connection/Interface type
Log main unit (ELC = Electronics Cabinet).	NJC-80 Signal Processor	Axx (STW) Dxx (SOG)	IEC 61162-1 / NMEA0183
* Log Processing Unit	NQA-4480 Signal Distributor	Bxx	IEC 61162-1 / NMEA0183
Transducer with cable	CFT-780 Transducer	N/A	Analog
Speed Log Master Display	NWW-82 Main Display	Cxx	IEC 61162-1 / NMEA0183

* Optional components.

Application/Limitation

This Type Approval covers the design only. i.e. the Type Approval is not valid for the final product, but may be used as basis for being exempted from the list of Systems under Consideration (SuC), and not needing to obtain a product certificate.

The design as covered by this Type Approval has the following limitations:

Design Parameter	Conformance	(as in current conditions)
1) no IP-based network connection with other system	Yes	connection via cable in IEC 61162-1 / NMEA0183, and fault relay to the ship's AMS, and no external or remote access
2) located in area(s) with restricted and controlled access	Yes	Transducer and Main unit are located in a restricted security zone in the bridge equipment room, processing unit in the bridge equipment room and display units on the bridge and in ECR
3) no accessible physical interface ports	Yes	No accessible physical ports on the system
4) not an integrated control system serving multiple vessel functions	Yes	Not integrated nor serving multiple ship functions, neither interact with any other ship services
5) not needed for propulsion and steering, and not include required safety functions	Yes	Not needed for any ship essential services or safety functions

6) not be susceptible by cyber incidents, nor propagate the effect of a cyber incident to other systems	Yes	No remote access to the speed log system, the attack surface is therefore limited; the system is located in security zones, thus there is no data connection and not possible to propagate a cyber event to any other systems. IEC 61162-1 / NMEA0183 connection only.
7) known vulnerabilities, threats, attack surface, and potential impacts deriving from a cyber incident have been considered	Yes	A CVE scan report is submitted with no open known vulnerabilities at the time of this certificate.

Installation:

- The onboard type approved product shall be installed according to manufactures installation manual, with transducer and main unit located in a restricted security zone, processing unit in the bridge equipment room, and display units on the bridge and in ECR.

Cyber security:

- Components/Applications in the product description have been assessed towards the exemption criteria for DNV rules for ships Pt.6 Ch.5 Sec 21 [2.2] for Cyber Security (SP1) and IACS UR E26 [6.4], thus subjected system may be considered to represent negligible cyber risk and thus **exempted** from the list of Systems under Consideration (SuC), based on the above table for Design limitations.
- However, in the newbuilding survey, the surveyor shall verify that the system herein approved to be exempted, meets the design limitations as listed in the above table.

Type Approval documentation

Drwg./Doc. No.	Rev.	Title
1	0	TP25073A01, F011 Risk Assessment JLN-900.pdf
2	1	TP25074A01, F021 Description of security capabilities for JLN-900.pdf

Tests carried out

None.

Marking of product

The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to the onboard product. In addition, the onboard product shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Periodical assessment

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>

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 A renewal assessment will be performed at renewal of the certificate.

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END OF CERTIFICATE