



Certificate no.:
TAA00003R6

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Control and monitoring of watertight doors**

with type designation(s)
WTD control and monitor system

issued to

IMS Technologies AS
Akland, Norway

is found to comply with

DNV rules for classification – Ships Pt.6 Ch.5 Sec.21 Cyber security

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV. The Type Approval covers security capabilities in accordance with DNV security profile 1 and IACS UR E27 Rev.1, subject to conditions stated in this certificate.

Issued at **Høvik** on **2025-08-26**

This Certificate is valid until **2027-08-25**.

for **DNV**

DNV local unit: **West Norway CMC**

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 USD 300 000.

Product description

The IMS WTD control & monitoring system provides indication and control of the watertight doors as part of an onboard safety infrastructure.

Onboard components:

<i>Brand/Manufacturer</i>	<i>Product model/Type</i>	<i>OS/Application SW version</i>	<i>Connection/Interface type</i>
Wago 750-8xxx	PLC: 750-8xxx	Firmware: 40601_xx Application: E!Cockpit runtime	Sdcard 2x Ethernet
Exor International	HMI: Ex721/715/710 eSmart07/10	Firmware: 4.x.x Application: JMobile Runtime	USB x1 2x Ethernet RS232
IMS Technologies	Controller: V5	Firmware: 18.xx Application: IMS WTD Control	2x Ethernet
Wago switch	Switch : 852-303	Firmware: 1.5	8 x 10/100BASE-TX (RJ-45) 2 x SFP 1000BASE-SX/LX fiber optic 1 x RS-232 (RJ-45)

Approval conditions:

The following documentation of the actual application is to be submitted for approval in each case where the class notation Cyber secure(Essential) applies:

- Reference to this Type Approval Certificate
- F030 - System topology
- F071 - Inventory list
- F262 - Test report or declaration of hardening and security configuration.

Any modifications in the system to be delivered compared with the type approved system covered by this certificate shall be documented and submitted for approval in each case.

Major changes of the type approved system affecting future deliveries shall be informed to DNV. If the changes are considered to affect functionality for which rule requirements apply, a new functional type test may be required, and the certificate may have to be renewed to identify the new version. Minor changes are covered by this type approval.

Product certificate

Each delivery of the application system is to be certified according to Pt.6 Ch.5 Sec.21. After certification 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

The following conditions shall be satisfied when the system is installed and used on a vessel where the class notation Cyber secure(Essential) applies:

- This Type Approval is based on examination of drawings and documentation as listed below.
- Correct configuration and set-up for each delivery to be tested during commissioning after installation.
- Drawings of complete system configuration are to be submitted by the shipyard for approval as relevant for each separate delivery.

Limitation

Following limitations were observed during testing of the WTD Control & Monitoring system:

- WTD controller has no logging capability.
- PLC, Switch, logs are available to ADMIN user only.
- HMI Logs are available to Crew with password.
- The IMS system does not have a firewall. Hence it must be in an isolated network. NO external TCP or ethernet connection must be established

Type Approval documentation

Following documentation was provided for approval:

Drawing/Doc. No.	Rev.	Title
Supplier Doc. No.: 115922-20-TD02	04	Asset inventory
Supplier Doc. No.: 115922-20-TD01	11	IMS Cyber security System description
Supplier Doc. No.: TD2342459	03	Test procedure for IMS Watertight door control system – Cyber security
Supplier Doc. No.: ID: 1166	1.1	Secure Development Procedure

Tests carried out

Tested in accordance with requirements for DNV rules Pt.6 Ch. 5 Sec 21 security profile 1, edition July 2024. Relevant manuals and instructions of IMS Technologies AS's WTD Control & Monitoring system have been verified for compliance with IACS UR E27 chapter 5.

Marking of product

The product shall be marked with

- Manufacturers name or mark
- Type designation
- Reference to DNV TA-Certificate
- Additional marking at manufacturers' option.

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
- Review documented evidence of adherence to Secure Development Lifecycle processes.

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

END OF CERTIFICATE