



Certificate no.:
TAA00003U1

TYPE APPROVAL DESIGN CERTIFICATE

This is to certify:

that the Control and monitoring of watertight doors

with type designation(s)
Watertight door alarm indication system

issued to

NANTONG ARK MARINE TECHNOLOGY CO., LTD.
Nantong, Jiangsu Province, China

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.

This type approval design certificate 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 **2026-01-31**

This Certificate is valid until **2028-01-30**.

for **DNV**

DNV local unit: **Nantong**

Approval Engineer: **Qitao Gan**

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

The watertight door alarm and indication system is used to display the opening and closing status of the watertight doors. When the watertight door is opened, an audible and visual alarm at remote control panel is triggered, alerting the crew that the watertight door is in an open state. This is an important device for ensuring the safety of the vessel.

Product features:

1. The control panel uses microprocessor technology and LED indicators, with an attractive appearance and clear indication. The control console indicator board can simulate display of the position of the watertight door according to the actual ship layout.
2. The system uses 485 communication and can conduct reliable long-distance communication.
3. The system can monitor up to 48 watertight doors.

The following hardware comprising the above-mentioned system is covered by this certificate:

No.	Sub-unit	Model and type	Firmware version	Software version
1.	Watertight door control console indicator board	AWTD-IND	PIC16F15375	PIC16F15344 WTD_IND V1.0
2.	Watertight door indicator relay box	AWTD-J	PIC16F15344	WTD_CB V1.0

Application/Limitation

The following conditions shall be met when the Watertight door alarm indication system is installed on board:

- The Watertight door alarm indication system shall be installed in the bridge control console and cable tunnel.
- The Watertight door alarm indication system shall only have RS485 ports
- The Watertight door alarm indication system shall only have software stored in the ROM.

Marking of product

The type designation, serial numbers, part numbers shall be affixed in a way they are clearly visible on the onboarded for verification.

Approval documentation

Following documents have been submitted and reviewed to issue this certificate:

- F071 Inventory list LPS-40-CB-812-10
- F030 System topology LPS-40-CB-812-10
- Risk assessment for exclusion of CBS from the application of requirements (DNV-RU-SHIP PT.6 Ch.5 Sec.21) LPS-40-CB-812-10

Renewal

To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>

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

END OF CERTIFICATE