



Certificate no.:
TAA00003M7

TYPE APPROVAL DESIGN CERTIFICATE

This is to certify:

that the Automatic Telephone, Public Address, General Alarm Systems

with type designation(s)
KJ, PAGA SYS, K1302

issued to

Jiaxing Kexun Electron Co., Ltd.
Jiaxing, China

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.

Temperature
Humidity
Vibration
EMC
Enclosure

Issued at **Høvik** on **2025-10-17**

This Certificate is valid until **2027-10-16**.

for **DNV**

DNV local unit: **Shanghai**

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 product in certification includes Public Announcement, General Alarm (PA/GA), Automatic Telephone System (ATS) and Fire Detection and alarm System (FDS) systems.

The following systems and components are covered in this approval:

Component Description	Type Designation (part number)	OS/Application SW version	Connection/Interface type
PA/GA system	PAGA SYS	KG4ZL1089-C.2.3, KG4ZL1089-D.0.0, KG4Z1075-B.1.13, KG4Z1075-C.1.5 KGAJK1242-A.1.0 or KG2JK-C.1.5 or KG2JK-D.1.4 or KG1JK-D.1.5	Analogue, Audio
Automatic Telephone System (ATS)	KJ 1~4	3.0.16	Analogue, Audio
Fire Detection and alarm System (FDS)	K1302B (controller)	K1302B-1447-C1.2	Analogue, RS485 serial line
	K1302C (controller)	K1302C-1472-B1.0	
	K1303 (repeater)	K1303-1317-A1.15 or K1303-B1.5	

Application/Limitation

This type approval design certificate is issued to state conformance with DNV-RU-SHIP Pt.6 Ch.5 Sec.21 [2.2], indicating that a design assessment is performed to confirm that the criteria for exclusion from mandatory application of cyber security requirements in DNV-RU-SHIP Pt.6 Ch.5 Sec.21 [4], are met.

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	PA/GA, FDS: is isolated and not have network communication with other system. ATS: is an analogue system, no IP networking. no remote access for all systems.
2) located in area(s) with restricted and controlled access	Yes	PA/GA: main unit located in the Navigation room . ATS: exchange generally installed in Navigation room or Bridge . FDS: is always installed in Bridge , ECR , or other area(s) with restricted and controlled access like CCR or Fire station.
3) no accessible physical interface ports	Yes	PA/GA: no accessible physical ports on the system, and connection to the USB ports is restricted. ATS: no physical HMI display(s), no interface for file transfer, Software and config update is signed by the manufacturer. FDS: no Ethernet or USB interfaces.
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 be 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 external physical ports or remote access to system, the attack surface is therefore limited; the detector is isolated in a single security zone, thus there is no data connection and not possible to propagate a cyber event to any other systems
7) known vulnerabilities, threats, attack surface, and potential impacts deriving from a cyber incident have been considered	Yes	the attack surface is therefore limited to physical attack only. PA/GA, ATS: does not contain an OS. FDS: does not contain an OS.

The following conditions shall be met when the systems are installed on board:

- The systems shall be installed in a restricted or controlled area.
- The service port of the device shall be arranged such as to avoid unauthorized access.
- The systems interface shall only be connected to components and systems meeting the requirements in DNV-RU-SHIP Pt.6 Ch.5 Sec.21.

For vessels where the Cyber secure notation is applicable, the above listed conditions shall be verified on board.

Marking of product

The products to be marked with:

- maker
- type designation
- serial number

Periodical assessment

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

END OF CERTIFICATE