



Certificate no.:
TAA00003MY

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Public Address and General Alarm System**

with type designation(s)
Exigo - PA/GA

issued to

Zenitel Norway AS avd Horten
HORTEN, 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. This type approval covers security capabilities for DNV Cyber security profile level 1 (SP1) and IACS UR E27, subject to conditions stated in this certificate.

Issued at **Høvik** on **2025-06-25**

This Certificate is valid until **2027-06-24**.

for **DNV**

DNV local unit: **East & South Norway CMC**

Approval Engineer: **Mirza Muqadam Baig**

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

Zenitel's Exigo Public Address and General Alarm System (PA/GA) is an internal communication system that provides two key functions:

- Public Address (PA) – Enables broadcast announcements to various zones or the entire vessel for operational, safety, or emergency purposes.
- General Alarm (GA) – Triggers alarms and alerts to notify crew and passengers of emergencies such as fire, man overboard, or abandon ship situations.

Hardware:

Component Description	Type Designation	OS/Software
Network Firewall	Cisco FirePower FPR1010-NGFW-K9	Refer to approved F071 Inventory list - Document F071 - Exigo PAGA - Inventory list v1.5
Network Switches	Cisco 24 Port C1000-24P-4G-L	
	Cisco 48 Port C1000-48P-4G-L	
	Cisco 8 Port (Marine Approved) IE-3200-8P2S-E	
Controllers	Zenitel ICX-500 Primary System Controller	
	Zenitel ESC1 System Controller Support	
Amplifiers	Zenitel Exigo ENA2100-AC2 Audio Distribution Unit	
	Zenitel Exigo ENA2200-AC2 Audio Distribution Unit	
	Zenitel Exigo ENA2400-AC2 Audio Distribution Unit	
	Zenitel P-1670 Basic Power Amplifier	
	Zenitel P-1670 Line Power Amplifier	
Alarm and Access Panels	Zenitel Exigo EAPIR-8 Alarm Panel	
	Zenitel Exigo ECPIR-P Call Panel	
	Zenitel Exigo ECPIR-3P/-B Call Panel	
	Zenitel Exigo EAPII-1 Industrial Access Panel	
	Zenitel Exigo EAPII-6 Industrial Access Panel	
	Zenitel Exigo EAPFX-1-V2 Industrial Ex Access Panel	
	Zenitel Exigo EAPFX-6-V2 Industrial Ex Access Panel	
IP Station Kit and IP Line Expansion Modules	Zenitel IP-LCM-A IP Line Expansion Module	
	Zenitel TKIE-2 IP Station Kit	
	Zenitel TKIS-2 IP Station Kit	
Ethernet Converter	Zenitel FCDC3 Flowire Ethernet Converter	
Speakers	Zenitel ELSIR-10C Speaker	
	Zenitel ELSII-10H Speaker	
Power Injector	Zenitel Exigo EPIPR-6 Power Injector	

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:

- The type approved products shall be installed in restricted areas. Access to the components shall be restricted and controlled.
- The type approved products shall be installed with the included firewall controlling all external communication.
- The type approved products shall only be connected to networks or systems explicitly illustrated in the approved system topology and shall not interface with any untrusted networks or systems outside of this scope.

Type Approval documentation

No.	Title	Revision/Version
1	F021-Security capabilities-Exigo	r5
2	F030-System topology	v2
3	F071-Inventory list (manufacturer)	v1.5
4	F141-Hardening guide-Exigo PAGA	v2.1
5	F252-Procedure for test of security capabilities-Exigo PAGA	v1.6
6	F259-Compliance-Secure-Dev-Lifecycle	v0.3
7	Z100-Specification and modification strategy	v0.1

At renewal of this TA certificate a complete list of modifications (i.e., an accumulated change log) shall be submitted.

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 Zenitel's management system have been verified for compliance with IACS UR E27 chapter 5.

Marking of product

- Hardware devices are marked with product name and type as listed in 'Product description' above
- Software version(s) can be seen via each product's management interface

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