



TYPE APPROVAL CERTIFICATE

Certificate No:
TAA00002ZU
Revision No:
2

This is to certify:

That the **Fire Technical Ancillary Equipment**

with type designation(s)
A112N, AL112NX, A121, AL121X, A105N, AL105NX, A100, AL100X

Issued to
European Safety Systems Ltd.
London, LO, United Kingdom

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
A112N, AL112NX, A121, AL121X	D	B	A	B	C
A105N, AL105NX	D	B	A	A	C / IP66
A100, AL100X	D	B	A	A	C / IP66

Issued at **Høvik** on **2024-04-18**

This Certificate is valid until **2026-04-29**.

for **DNV**

DNV local station: **UK & Ireland CMC & VMC**

Approval Engineer: **Frode Nygård**

.....
Frederik Tore Elter
Head of Section

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 AlertAlarm & AlertAlight family consist of acoustical components in different performance classes. Type B Sounders intended for outdoor application also more suitable for indoor situations where high temperature and/or humidity are present.

AlertAlarm: Alarm Horn Sounder devices: Item Number: [a] [volt] [bemsvv] [x]

[a]		Product	Type
	A100	A100	Alarm Horn Sounder
	A105N	A105N	Alarm Horn Sounder
	A112N	A112N	Alarm Horn Sounder
	A121	A121	Alarm Horn Sounder
[volt]		Voltage Range	
	DC024	10-60Vdc	(A105N, A100)
	DC024	11.5-54Vdc	(A112N & A121)
	AC230	24-260Vac 50/60Hz & 60-260Vdc	(A105N, A100)
	AC230	100-240Vac 50/60Hz	(A112N & A121)
[bemsvv]		General Product Identifiers	
	[b]	mounting options	
	[e]	optional entry positions and size	
	[m]	optional entry plug/adaptor material	
	[s]	optional duty label/equipment tags	
	[vv]	optional configuration and approval version	
[x]		Enclosure Colour	
	R	Red	
	G	Grey	
	S	Special alternative colour	

AlertAlight: Combined devices: Item Number: [a] [volt] [bemsvv] [x] [y]

[a]		Product	Type
	AL105NX	AL105NX	Combined Xenon Strobe Beacon with Alarm Horn Sounder
	AL112NX	AL112NX	Combined Xenon Strobe Beacon with Alarm Horn Sounder
	AL121X	AL121X	Combined Xenon Strobe Beacon with Alarm Horn Sounder
	AL100X	AL100X	Combined Xenon Strobe Beacon with Alarm Horn Sounder
[volt]		Voltage Range	
	DC024	20-28Vdc	(AL105NX, AL112NX, AL121X, AL100X)
	DC048	48-54Vdc	(AL105NX, AL112NX, AL121X)
	AC230	48-260Vac 50/60Hz	(AL105NX)
	AC230	100-240 Vac 50/60Hz	(AL112NX, AL121X)
	AC230	230Vac 50/60Hz ±10%	(AL100X)
[bemsvv]		General Product Identifiers	
	[b]	mounting options	
	[e]	optional entry positions and size	
	[m]	optional entry plug/adaptor material	
	[s]	optional duty label/equipment tags	
	[vv]	optional configuration and approval version	
[x]		Enclosure Colour	
	R	Red	
	G	Grey	
	S	Special alternative colour	
[y]		Signal Colour	
	A	Amber	
	B	Blue	
	C	Clear	
	G	Green	
	M	Magenta	
	R	Red	
	Y	Yellow	

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case.

Reference is made to DNV rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Type Approval documentation

Tests carried out

Applicable tests according to:

- Class guideline DNV-CG-0339, August 2021,
- EN 54-3:2014 incl. A1:2019,
- EN 54-23:2010 (additional test for the Xenon Strobe Beacon).

Marking of product

The products to be marked with:

- manufacturer name
- item number
- serial number
- power supply ratings

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

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE