DNV·GL

Certificate No:
TAA0000221

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Public Address and General Alarm System

with type designation(s)
SemSound IP

Issued to
Semco Maritime A/S
Esbjerg, Syddanmark, Denmark

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft
IMO Res. A.694(17) General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids
IMO A.1021(26) Code on alerts and indicators (2009)
LSA Code VII 7.2
IMO MSC Circ 808

Application :

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Issued at **Høvik** on **2018-12-14**
This Certificate is valid until **2023-12-13**.
DNV GL local station: **Fredericia**

Approval Engineer: **Steinar Kristensen**

for **DNV GL**

Jan Tore Grimsrud
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.

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Product description

The SemSound IP Public Address and General Alarm system can be provided as either:

- PA system only
- Integrated PA and GA system

When used for PA on passenger vessel or integrated PA and GA on any vessel, the system shall be duplicated. When used for passenger vessels the duplicated parts of the system are to be installed in separate main vertical fire zones.

The SemSound IP Public Address and General Alarm system comprises the following modules [1]:

Equipment type	Description	Module	Article no.	SW
Central equipment	Audio IP Router	VIPEDIA-12SEM	8066170	V.3.3.0.2P
	Modular Power Amplifier main frame with -Interface to 48VDC battery backup or -Interface to 24VDC battery backup	V2000SEM	 8066227 8066358	V.3.3.0.2P
	Amplifier card, 500W	D500SEM	8066230	
	Amplifier card, 150W	D150SEM	8066229	
	Surveillance card	LSZDCSEM	8066231	
	Remote I/O Expansion Unit	BMB01SEM	8066221	
	Breakout Module, RJ45 to terminals	BOA02SEM	8066273	
	End of Line unit	EOL01SEM	8077438	
	DC Power Filter	FN2410-80-34	8087514	N/A
	AC Power Filter	FN2010-16-44	8087513	N/A
	Power Supply, 230VAC/24DC	Power supply box	8069076	N/A
	Power Supply, 48VDC/24VDC	Power supply box	8010643	N/A
Call station	Modular Microphone Station with gooseneck microphone and keypads - Base model, no keypad - Keypad module, 10 keys Models MPSXXSEM, where XX =number of keys, are made up by combination of base model MPS01SEM and additional keypad module with 10 keys. - MPS01SEM= 8066222 - MPS10SEM= 8066222 + 1pcs 8066225 - MPS20SEM= 8066222 + 2pcs 8066225 - MPS30SEM= 8066222 + 3pcs 8066225 - MPS40SEM= 8066222 + 4pcs 8066225 - MPS50SEM= 8066222 + 5pcs 8066225	MPS01SEM	8066222 8066225	V.3.3.0.2P

All units listed above are to be installed in a protected environment, i.e. indoor

[1] Actual configuration may vary based on requirements for individual installations. Only modules listed in certificate are approved for installation.

Application/Limitation

1. The SemSound IP Public Address and General Alarm system may be used in cargo ships, passenger vessels, high-speed & light craft and mobile offshore units for compliance with the following codes/rules/regulations:
   - SOLAS
   - HSC Code
   - MODU Code
   - DNV GL Statutory Interpretations, DNVGL-SI-0364 [Feb. 2018]
2. The SemSound IP Public Address and General Alarm system shall operate on a dedicated IP network/LAN, consisting of components listed in this certificate.
   Interconnection to other networks is subject to separate case-by-case approval.
3. Any PA functions which is not used for activation of emergency PA shall have a lower priority than GA.
4. Call stations with functions for activation of Emergency PA and GA are to be installed in locations with access control.
5. When used as combined PA/GA system, minimum two independent speaker loops are required.
6. Access panels on the bridge shall be illuminated by an external, dimmable light source.

Tests carried out

- Environmental testing: IEC 60945 (2002)
- Performance testing: Functional tests according to DNVGL Type Approval programme 848.22

Type Approval documentation

DNV GL No	Document Id.	Rev.	Description
22	1029290-SEMCO-T-RA-1102	D	Report: Semco Maritime, DNVGL Certification SemSound IP-PA/GA, System Test Report
21	MA-SEMCO-0002	02	Manual: Semco Maritime, V2000SEM Mdoular Amplifier Mainframe, User Manual
20	MA-SEMCO-0004	00	Manual: Semco Maritime, VIPEDIA-12SEM Professional Sound Life-Safety Digital Audio System, User Manual
19	MA-SEMCO-0007	03	Manual: Semco Maritime, MPS-Series Modular Paging Microphone Station, User Manual
18	MB-SEMCO-0002	03	Manual: Semco Maritime, MPS-Series Modular Paging and Emergency Microphones, Installation Guide
17	MB-SEMCO-0005	00	Manual: Semco Maritime, VIPEDIA-12SEM, Installation Guide
16	MB-SEMCO-0007	00	Manual: Semco Maritime, V2000SEM Mdoular Amplifier Mainframe, Instalaltion Guide
15	MB-SEMCO-0008	00	Manual: Semco Maritime, BMB01SEM Remote I/O Unit, Installation Guide
14	1029290-01	B	Statement: Semco Maritime, Waiver request for salt mist test
13	6P09836	2018-07-25	Report: EKTOS, Type approval testing of VIPEDIA-12SEM Professional Sound Life-Safety Digital Audio System

Marking of product

The Manufacturer and Type Designation to be applied to the equipment in a clearly visible location. In addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage and reference to Type Approval certificate number.

Periodical assessment

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.
The scope of the periodical/renewal assessment is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society.