# DNV·GL

# TYPE APPROVAL CERTIFICATE

Certificate No:
**TAA000009K**
Revision No:
**3**

**This is to certify:**

That the Public Address and General Alarm System

with type designation(s)
**Praesideo**

Issued to
## Bosch Security Systems B.V.
**EINDHOVEN**, Netherlands

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 :**

See page 2.

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

Issued at **Høvik**  on **2019-10-22**

This Certificate is valid until **2023-12-20**.
DNV GL local station: **Netherlands CMC**

Approval Engineer: **Steinar Kristensen**

for **DNV GL**

**Trond Sjåvåg**
**Head of Section**

## Product description

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

- PA system only
- GA system only
- Integrated PA and GA system

When used for PA on passenger vessels or integrated PA and GA on any vessel, the system shall be duplicated (A+B system). When used for passenger vessels the A and B systems shall be installed in separate fire zones.

Praesideo Public Address and General Alarm System consists of the following equipment [1]:

| Equipment type | Description | Type no. |
|---|---|---|
| Central Equipment | Network Controller | PRS-NCO3 |
| | SPEC RCS, Special Network Splitter, Master | PSP-D00039 |
| | SPEC RCS, Special Network Splitter, Slave | PSP-D00040 |
| | SPEC Master/Slave NCO Selector | PSP-D00060 |
| Network Equipment | Audio Expander Analogue | LBB4402/00 |
| | Audio Expander Analogue | PRS-4AEX4 [*] |
| | Multi Channel Interface | PRS-16MCI |
| | Basic Amplifier 8x60W | PRS-8B060 or PRS-8B060-EU |
| | Basic Amplifier 2x250W | PRS-2B250 or PRS-2B250-EU |
| | Basic Amplifier 1x500W | PRS-1B500 or PRS-1B500-EU |
| | Basic Amplifier 4x125W | PRS-4B125 or PRS-4B125-EU |
| | Network Splitter | PRS-NSP |
| | Fiber Interface | PRS-FIN |
| | Fiber Interface Non-Addressable | PRS-FINNA |
| | Fiber Interface Single-Mode | PRS-FINS |
| | Call Stacker | PRS-CRF |
| | OMNEO interface | PRS-4OMI4 |
| Call Stations | Call Station Interface | PRS-CSI |
| | Remote Call Station | PRS-CSR |
| | Call Station Keypad | LBB4432/00 |
| | Remote Call Station Module | PRS-CSRM |
| | Call Station Keypad Module | PRS-CSKPM |
| | Call Station Module | PRS-CSM |
| Software | Praesideo Software version 4.1x, 4.3x or 4.4x | PRS-SW |

The system is to be mounted in a protected, i.e. indoor, and climate controlled environment.

[*] Audio output ports 3 and 4 of PRS-4AEX4 are not to be used.

---

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

## Application/Limitation

1. The Praesideo system may be used in cargo ships, passenger vessels, high speed-, light- & naval surface 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. Equipment is to be installed in an environment as specified in Appendix and according to instructions in Installation Manual, doc ID: IUI-PRAESIDEO_4.3, and Application Note appendix for Maritime Installations, doc. ID: AN Praesideo DNV GL
3. Call Stations which are not used for emergency PA activation 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. Call Stations with functions for activation of Emergency PA and GA shall be provided with means to avoid unintended use, e.g. cover for protection of keys. Keys shall be clearly labelled.
6. When used as combined PA/GA system, a minimum two independent speaker loops are required.
7. Interconnection to other IP network/LAN is subject to separate case-by-case approval.

## Type Approval documentation

| DNV No | Doc. ID | Description | Rev. |
|---|---|---|---|
| 43 | 20144581201 | Report: Telefication, EMC and environmental test report incl PRS-4OMI4 | V1.00 |
| 20 | 20144581201 | Report: Telefication, EMC and environmental test report for PRS-4AEX4 Audio Expander Analogue | 1.0 |
| 13 | PY007515 | Report: Bosch, Performance test report for DNV Type Approval | 1.0 |
| 12 | AN Praesideo DNV GL | Manual: Bosch, Application Note appendix for Maritime Installations | 2018-11-01 |
| 11 | IUI-PRAESIDEO_4.3 | Manual: Bosch, Praesideo 4.3 Installation and User Instructions | 1.0 |
| 9 | 20104096800 | Report: Telefication, Selected EMC and environmental tests for Praesideo system | 1.1 |
| 8 | | Drawing: Bosch, Test set-up for IEC 60945 testing | 2014-05-07 |
| 7 | 20143788200 | Report: Telefication, EMC and environmental test report for Praesideo PA/GA system | 2.00 |
| 6 | RLS2014006-2 | Declaration: Bosch, Description of modifications relevant for radiated emission | 2014-07-15 |
| 5 | 20134648201 | Report: Telefication, EMC and environmental test report for PRS call station modules | 3.0 |
| 3 | 20124320800 | Report: Telefication, Selected EMC and environmental tests for PRS-NCO3 network controller | 1.0 |
| 2 | 20133256200 | Report: Telefication, Environmental tests for PRS-NCO3 Network Controller | 1.0 |

## Tests carried out

- Environmental testing: IEC 60945 (2002) incl Corr.1 (2008)
- Performance testing: Functional tests according to DNV GL Type Approval program 848.22

## 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, reference to Type Approval certificate, safe distance to magnetic compass, power consumption and/or supply voltage.

## 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.

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnvgl.com