TYPE EXAMINATION CERTIFICATE – EC MODULE B

Certificate no.:
MEDB000099X

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as “Forskrift om Skipsutstyr” by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

that the Public Address and General Alarm Systems (PAGA):-Control and distribution system

with type designation(s)
PRAESENSA

issued to
Bosch Security Systems B.V.
EINDHOVEN, **Netherlands**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2025/1533,**
item No. MED/1.44a. SOLAS 1974 as amended, Regulation II-2/12,21,22, III/4, 6 & X/3, LSA Code VII, HSC Code 4,8, IMO MSC.302(87),IMO MSC.1/Circ. 808, 1369/Add.1

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2030-09-28**.

Issued at **Høvik** on **2025-09-29**

DNV local unit:
Netherlands VMC

Approval Engineer:
Steinar Kristensen

Notified Body
no.: **0575**

for **DNV AS**

Mydlak-Röder, Christine
Head of Notified Body

NORWEGIAN ACCREDITATION PROD 019

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer’s Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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

The Praesensa Public Address and General Alarm can be provided in different configurations for the functions of General Alarm (GA) and Public Address (PA) for the below types of installations:

Vessel Type	**System Type**		
Cargo	GA	PA	PA/ GA
Passenger	GA	PA	PA/ GA
Passenger SRtP	GA	PA	PA/ GA

The Praesensa Public Address and General Alarm System consists of the following equipment [1)]:

Equipment type	**Description**	**Type no.**
Central Equipment	System Controller Large	PRA-SCL
	System Controller Small	PRA-SCS
	Amplifier, 600W, 8 Channels	PRA-AD608
	Amplifier, 600W, 4 Channels	PRA-AD604
	Multifunction Power Supply Large	PRA-MPS3
	End-of-Line device	PRA-EOL
	Audio Interface Module	PRA-IM2A2
	Control Interface Module	PRA-IM16C8
Network Equipment	Ethernet switch	PRA-ES8P2S
	Power supply module, 48V	PRA-PSM48
	Fiber Transceiver Module, Multimode	PRA-SFPSX
	Fiber Transceiver Module, Single Mode	PRA-SFPLX
Call Stations	Call Station Desktop	PRA-CSLD
	Call Station Wallmount	PRA-CSLW
	Call Station Extension	PRA-CSE
GA pushbutton *)	Push Button with illumination	PRA-CSMEDB
Software	Praesensa Software version SW 2.XX	-

*) Alternative GA pushbuttons meeting the specifications in section 5.1 of the “Marine Equipment Directive instructions, doc. no F.01U.431.776” may be applied.

1) Actual configuration may vary based on requirements for individual installations.

Application/Limitation

1. The Praesensa system is to be installed according to the manufacturer's instructions, including instructions for Marine Equipment Directive.
2. Call Stations which are not used for emergency PA activation shall have a lower priority than GA.
3. Call Stations with functions for activation of Emergency PA and GA are to be installed in locations with access control.
4. The GA activation points shall be installed using dedicated GA pushbuttons. Activation of GA shall not be enabled on the Call Stations.
5. Call Stations on the bridge shall be illuminated by an external, dimmable light source.
6. 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.
7. When used as combined PA/GA system, a minimum two independent speaker loops are required.
8. Interconnection to other IP network/LAN and use of Open Interface is subject to separate case-by-case approval.
9. The Praesensa supports use of the Open Interface network protocol for initiation of PA from external equipment if set up according to instructions in the manual "PRAESENSA Public Address and Voice Alarm System, Marine Equipment Directive instructions", Document ID: F.01U.431.776, V01 or later.
   Emergency PA shall not be available via the Open Interface.

Type Examination documentation

DNV No	Drawing No	Rev.	Title
10	171201096 003	2.0	Report: Telefication, EMC and environmental test report for Praesensa system
11	BSH/4531/1043 3339/20/S3202	2020-02-17	Report: BSH, Compass safe distance test report for BOSCH PRAESENSA PRA-CSLD, PRA-CSLW and PRA-CSE call station modules
14	171201096-001	4.00	Report: Telefication, EN 54-16 test report for Praesensa system
15	P000313562 003	Ver 2.00	Report: Kiwa, IEC 60945 test report for Control interface module PRA-IM16C8
17	F.01U.431.776	V01	Manual: Bosch, PRAESENSA Public Address and Voice Alarm System, Marine Equipment Directive instructions
18	P000412314 001	V3.00	Report: Kiwa, EMC test report for PRA-IM16C8
19	TAA00002GC	3	Certificate: DNV, Type Approval certificate for 5NMEAto1-E multiplexer
23	GO017635	0.3	Report: Keenfinity, Environmental test report for Praesensa PA/GA system, selected tests
27	F.01U.432.516	V2.40	Manual: Bosch, Configuration manual for PRAESENSA Public Address and Voice Alarm System
28	F.01U.432.517	2.40	Manual: Bosch, Installation manual for PRAESENSA Public Address and Voice Alarm System
51	31657	0	Report: Applica, Compass safe distance testing of Audio Interface Module
53	1132	2023-08-15	Certificate: BSH, Compass safe distance for PRA-IM16C8 IO module
54	M23.002-P23.002	2023-08-02	Report: Sebert Trillingtechniek, Vibration test for PRA-IM16C8 Interface Module
60	GO017636	0.1	Report: Bosch, Test Results DNV Type Approval - PA/GA systems (MED/1.44a)
61	GO017637	0.1	Report: Bosch, Test Results DNV Type Approval - Bridge Alert Management
68	P000412314 002	V3.00	Report: Kiwa, EMC test report for PRA-IM2A2 Control Interface module

Tests carried out

- Environmental testing: IEC 60945 (2002) incl. Corr.1(2008)
- Performance testing: EN 50695 (2021)
- Interface testing: IEC 61162-1 (2016), IEC 61162-1 (2024) and IEC 61162-450 (2018)
- Presentation of information: IEC 62288 (2021)
- Bridge Alert Management IEC 62923-1 (2018) and IEC 62923-2 (2018)

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.