Certificate of constancy of performance
0560-CPR-10219002
Issue: 15

Issued	03-03-2022	**Replaces**	0560-CPR-10219002 / 14
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In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product:

Product description:	Public Address and Voice Alarm System
Trademark:	Bosch
Type designation:	Praesideo
Conditions and essential characteristics:	See Annex 1
Variants:	See Annex 1

placed on the market under the name or trademark of:

Name of the manufacturer:	Bosch Security Systems B.V.
Address:	Torenallee 49
City:	5617 BA EINDHOVEN
Country:	Netherlands

and produced in the manufacturing plant(s):

Manufacturing plant:	Bosch Security Systems B.V.
Address:	Torenallee 49
City:	5617 BA EINDHOVEN
Country:	Netherlands

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard(s):

EN 54-16:2008
EN 54-4:1997
EN 54-4:1997/A1:2002
EN 54-4:1997/A2:2006

under system 1 for the performances set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the **constancy of performance of the construction product**

This certificate was first issued on 31-03-2011 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Ron Scheepers
Managing director

PRODUCTS
RvA C 224

Remarks and observations

The following conditions are applicable:

The tested configuration of the Praesideo system is representative for comparable combinations of components as identified in annex 3 of this certificate. Each component may be installed multiple times into a Praesideo system. EN 54-16 compliance of the Praesideo system is only achieved if the installer fulfills all installer specific requirements as stated in the EN 54-16 compliance checklist in the installation and user instructions.

Certification of the Praesideo Digital Public Address and Emergency Sound System includes the cabinets (i.e. the enclosed 19" racks) in which the system components are mounted. It is allowed to use one or more cabinets, depending on the size of the Praesideo system. Within the same cabinet family different heights are allowed up to a maximum height that depends on the brand and type of an approved cabinet. The following cabinets have been approved for use with Praesideo:

- Rittal: TS, TS-IT, VX25 series
- Schroff: 20130073 Praesideo
- E.LAN: Diamond series
- Knürr (Emerson): Miracel series

- The power supply system ZDSO400E-AK3 can consist of: main power supply ZDSO-400-E, additional power supply ZDSOR-400-E, additional power supply ZDSOT-400-E, distribution panel PD-2U-x, battery circuit resistance measurer RMB-1.

Essential characteristics of EN 54-16:	Clauses:	Performance
Performance under fire condition	4, 5, 7, 10,12, 16.5, 16.6, 16.7	Pass
Response delay (response time to fires)	7.1, 7.8, 12	Pass
Operational reliability	4, 5, 6, 7, 8, 11, 12, 13, 14	Pass
Durability of operational reliability temperature resistance	16.4, 16.8	Pass
Durability of operational reliability Impact and vibration resistance	16.11, 16.12, 16.13	Pass
Durability of operational reliability electrical stability	16.14, 16.15	Pass
Durability of operational reliability humidity resistance	16.9 ,16.10	Pass

Implemented optional functions with requirements (per clause of EN 54-16):

7.3   Audible warning
7.6.2   Manual silencing of the voice alarm condition
7.7.2   Manual reset of the voice alarm condition
7.8   Output to fire alarm devices
7.9   Voice alarm condition output
8.3   Indication of faults related to the transmission path to the CIE
8.4   Indication of fault related to voice alarm zones
10   Voice alarm manual control
11   Interface to external control device(s)
12   Emergency microphone(s)
13.14 Redundant power amplifiers

The battery mid-point monitor, model SD08 from Alpha Technologies Ltd., may be used with the PRS-48CH12 battery charger and mounted in the cabinet, but is excluded from certification.
The Cobranet Interface is only EN 54-16 compliant in combination with the Hirschmann Switch RSR20-0800M2M2T1UCCHPHH07.1.01 or Ethernet switch PRA-ES8P2S.
The Hirschmann Switch may also be used to connect, within the cabinet, other EN 54-16 compliant products as listed in annex 3.

There are six Praesideo systems possible:

* Praesideo 3.5 system based on network controller PRS-NCOB and PRS-SW software version 3.51 - 3.53
* Praesideo 3.6 system based on network controller PRS-NCOB and PRS-SW software version 3.60 - 3.64
* Praesideo 4.0 system based on network controller PRS-NCO3 and PRS-SW software version 4.00 - 4.01
* Praesideo 4.1 system based on network controller PRS-NCO3 and PRS-SW software version 4.10 - 4.11
* Praesideo 4.3 system based on network controller PRS-NCO3 and PRS-SW software version 4.30 - 4.37
* Praesideo 4.4 system based on network controller PRS-NCO3 and PRS-SW software version 4.4x

For proper operation with the Line Isolator System, consisting of the PM1-LISM6 master unit and slave devices PM1-LISS and PM1-LISD, the multi-channel interface PRS-16MCI must have hardware version HW 04/15 or newer.

Essential characteristics of EN 54-4:	Clauses:	Performance
Performance of power supply	4, 5, 6	Pass
Operational reliability	4, 5, 6, 7, 8	Pass
Durability of operational reliability temperature resistance	9.5	Pass
Durability of operational reliability impact and vibration resistance	9.7, 9.8, 9.15	Pass
Durability of operational reliability electrical stability	9.9 to 9.13	Pass
Durability of operational reliability humidity resistance	9.6, 9.14	Pass

Factory location:

Bosch (Zhuhai) Security Systems Co.
San Zao Town
519040, Zhuhai
China

Bosch Security Systems S.A.
Lugar da Pardala
3880-728, Ovar
Portugal

The product as described in this certificate includes the following type designations

- Product description: Public Address and Voice Alarm System
- Trademark: Bosch
- Type designation: Praesideo

- Product description: SW
- Trademark: Bosch
- Type designation: Praesideo 4.4
- Hardware version: N/A
- Software version: 4.4x

- Product description: Network Controller
- Trademark: Bosch
- Type designation: PRS-NCO3
- Hardware version: 30/xx
- Software version: 4.0 - 4.4x

- Product description: Analog Audio Expander
- Trademark: Bosch
- Type designation: PRS-4AEX4
- Hardware version: 20/xx

- Software version: 3.61 - 4.4x

- Product description: CobraNet Interface
- Trademark: Bosch
- Type designation: LBB4404/00
- Hardware version: 03/xx
- Software version: 3.5 - 4.4x

- Product description: OMNEO Interface
- Trademark: Bosch
- Type designation: PRS-4OMI4
- Hardware version: 01/xx
- Software version: 4.3 - 4.4x

- Product description: IP-Audio Interface
- Trademark: Bosch
- Type designation: PRS-1AIP1
- Hardware version: 02/xx
- Software version: 3.5 - 4.4x

- Product description: Call Station
- Trademark: Bosch
- Type designation: LBB4430/00
- Hardware version: 06/xx
- Software version: 3.5 - 4.4x

- Product description: Remote Call Station
- Trademark: Bosch
- Type designation: PRS-CSR
- Hardware version: 01/xx
- Software version: 3.5 - 4.4x

- Product description: Call Station Interface
- Trademark: Bosch
- Type designation: PRS-CSI
- Hardware version: 01/xx
- Software version: 3.5 - 4.4x

- Product description: Call Station Keypad
- Trademark: Bosch
- Type designation: LBB4432/00
- Hardware version: 01/xx
- Software version: 3.5 - 4.4x

- Product description: Call Station Numeric Keypad
- Trademark: Bosch
- Type designation: PRS-CSNKP
- Hardware version: 01/xx
- Software version: 3.5 - 4.4x

- Product description: Calll Station Module
- Trademark: Bosch
- Type designation: PRS-CSM
- Hardware version: 11/xx
- Software version: 3.5 - 4.4x

- Product description: Remote Calll Station Module
- Trademark: Bosch
- Type designation: PRS-CSRM
- Hardware version: 11/xx

- Software version:	3.5 - 4.4x
- Product description:	Call Station Keypad Module
- Trademark:	Bosch
- Type designation:	PRS-CSKPM
- Hardware version:	11/xx
- Software version:	3.5 - 4.4x
- Product description:	Handheld emergency microphone
- Trademark:	Bosch
- Type designation:	LBB9081/00
- Hardware version:	N/A
- Software version:	3.5 - 4.4x
- Product description:	Gooseneck emergency microphone
- Trademark:	Bosch
- Type designation:	LBB9082/00
- Hardware version:	N/A
- Software version:	3.5 - 4.4x
- Product description:	Call Stacker
- Trademark:	Bosch
- Type designation:	PRS-CRF
- Hardware version:	01/10, 06/xx
- Software version:	3.5 - 4.4x
- Product description:	Power Amplifier 1x500W
- Trademark:	Bosch
- Type designation:	PRS-1P500
- Hardware version:	06/xx
- Software version:	3.5 - 4.4x
- Product description:	Power Amplifier 2x250W
- Trademark:	Bosch
- Type designation:	PRS-2P250
- Hardware version:	06/xx
- Software version:	3.5 - 4.4x
- Product description:	Power Amplifier 4x125W
- Trademark:	Bosch
- Type designation:	PRS-4P125
- Hardware version:	06/xx
- Software version:	3.5 - 4.4x
- Product description:	Power Amplifier 8x60W
- Trademark:	Bosch
- Type designation:	LBB4428/00
- Hardware version:	04/05, 05/05, 06/xx
- Software version:	3.5 - 4.4x
- Product description:	Multi-Channel Interface
- Trademark:	Bosch
- Type designation:	PRS-16MCI
- Hardware version:	04/xx
- Software version:	3.5 - 4.4x
- Product description:	Basic Amplifier 1x500W
- Trademark:	Bosch
- Type designation:	PRS-1B500
- Hardware version:	06/xx

- Software version: 3.5 - 4.4x

- Product description: Basic Amplifier 2x250W
- Trademark: Bosch
- Type designation: PRS-2B250
- Hardware version: 06/xx
- Software version: 3.5 - 4.4x

- Product description: Basic Amplifier 4x125W
- Trademark: Bosch
- Type designation: PRS-4B125
- Hardware version: 06/05, 07/xx
- Software version: 3.5 - 4.4x

- Product description: Basic Amplifier 8x60W
- Trademark: Bosch
- Type designation: PRS-8B060
- Hardware version: 06/05, 07/xx
- Software version: 3.5 - 4.4x

- Product description: Supervision Control Board
- Trademark: Bosch
- Type designation: LBB4440/00
- Hardware version: 01/xx
- Software version: 3.5 - 4.4x

- Product description: Supervision control board
- Trademark: Bosch
- Type designation: LBB4440/04
- Hardware version: 01/xx
- Software version: 3.5 - 4.4x

- Product description: Loudspeaker Supervision Board
- Trademark: Bosch
- Type designation: LBB4441/00
- Hardware version: 01/xx
- Software version: 3.5 - 4.4x

- Product description: End-Of-Line Supervision Set
- Trademark: Bosch
- Type designation: LBB4442/00
- Hardware version: 01/xx
- Software version: 3.5 - 4.4x

- Product description: End-Of-Line Supervision Board
- Trademark: Bosch
- Type designation: LBB4443/00
- Hardware version: 01/xx
- Software version: 3.5 - 4.4x

- Product description: Loudspeaker DC Blocking Board
- Trademark: Bosch
- Type designation: PM1-LISD
- Hardware version: 01/xx
- Software version: 4.1 - 4.4x

- Product description: Loudspeaker Line Isolator Master
- Trademark: Bosch
- Type designation: PM1-LISM6
- Hardware version: 01/xx

- Software version:	4.1 - 4.4x
- Product description:	Loudspeaker Line Isolator Module
- Trademark:	Bosch
- Type designation:	PM1-LISS
- Hardware version:	01/xx
- Software version:	4.1 - 4.4x
- Product description:	Network Splitter
- Trademark:	Bosch
- Type designation:	PRS-NSP
- Hardware version:	03/xx
- Software version:	3.5 - 4.4x
- Product description:	Redundant Controller Switch Master
- Trademark:	Bosch
- Type designation:	PSP-D00039
- Hardware version:	03/xx
- Software version:	3.5 - 4.4x
- Product description:	Redundant Controller Switch Slave
- Trademark:	Bosch
- Type designation:	PSP-D00040
- Hardware version:	03/xx
- Software version:	3.5 - 4.4x
- Product description:	Redundant Controller Switch
- Trademark:	Bosch
- Type designation:	PSP-D00060
- Hardware version:	03/xx
- Software version:	3.5 - 4.4x
- Product description:	Fiber Interface
- Trademark:	Bosch
- Type designation:	PRS-FIN
- Hardware version:	03/xx
- Software version:	3.5 - 4.4x
- Product description:	Non-Addressable Fiber Interface
- Trademark:	Bosch
- Type designation:	PRS-FINNA
- Hardware version:	03/xx
- Software version:	3.5 - 4.4x
- Product description:	Single Mode Fiber Interface
- Trademark:	Bosch
- Type designation:	PRS-FINS
- Hardware version:	03/xx
- Software version:	3.5 - 4.4x
- Product description:	Battery Charger 48V
- Trademark:	Bosch
- Type designation:	PRS-48CH12
- Hardware version:	N/A
- Software version:	3.5 - 4.4x
- Product description:	Battery Charger 48V With Battery
- Trademark:	PSD
- Type designation:	PRS-48CH02-DE
- Hardware version:	N/A

- Software version:	3.5 - 4.4x

- Product description:	Battery Charger 48V With Battery
- Trademark:	PSD
- Type designation:	PRS-48CH05-DE
- Hardware version:	N/A
- Software version:	3.5 - 4.4x

- Product description:	Battery Charger 48V With Battery
- Trademark:	PSD
- Type designation:	PRS-48CH06-DE
- Hardware version:	N/A
- Software version:	3.5 - 4.4x

- Product description:	Battery Charger 48V With Battery
- Trademark:	PSD
- Type designation:	PRS-48CH07-DE
- Hardware version:	N/A
- Software version:	3.5 - 4.4x

- Product description:	PSE With Battery
- Trademark:	Merawex
- Type designation:	ZDSO400E-AK3
- Hardware version:	N/A
- Software version:	N/A

- Product description:	Ethernet switch, 8xPoE, 2xSFP
- Trademark:	Advantech
- Type designation:	EKI7710G2CPA1801-T (Bosch order code: PRA-ES8P2S)
- Hardware version:	Rev. 0x
- Software version:	1.01.xx

- Product description:	Fiber transceiver, multimode
- Trademark:	Advantech
- Type designation:	SFP-GSX/LCI-AE (Bosch order code: PRA-SFPSX)
- Hardware version:	Rev. Ax
- Software version:	N/A

- Product description:	Fiber transceiver, single mode
- Trademark:	Advantech
- Type designation:	SFP-GLX/LCI-10E (Bosch order code: PRA-SFPLX)
- Hardware version:	Rev. Ax
- Software version:	N/A