

Telefication B.V.

Edisonstraat 12A
6902 PK Zevenaar
Phone : +31 316 583 180
Fax : +31 316 583 189
E-mail: certification@telefication.com
Web: www.telefication.com

CERTIFICATE

No. 000019/07

In accordance with the **CertAlarm** Rules
and Certification System 5, as defined in ISO / IEC Guide 67,
we Telefication B.V. certify that the product

Praesideo

is in conformity with the following standard(s)

EN 54-16: 2008

Voice alarm control and indicating equipment

EN 54-4: 1997 + A1: 2002 + A2: 2006

Power supply and indicating equipment

Bosch Security Systems B.V.

Torenallee 49
5617 BA Eindhoven
Netherlands

is authorised to use the CERTALARM Mark on the above mentioned product.

This certificate is valid until:

13 June 2014

Signed on behalf of Telefication B.V.

06 May 2014



W.J.M. Jong
Manager Product Certification



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CERTIFICATE

No: 000019/07 - Annex No 1

Takes into account the following product and variants:

- Product description: Digital Public Address and Emergency Sound System
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: Praesideo 3.5
- Software version: 3.5x (where x can be 0,1,2 or 3)

- Product description: Digital Public Address and Emergency Sound System
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: Praesideo 3.6
- Software version: 3.6y (where y can be 0 or 1)

- Product description: Digital Public Address and Emergency Sound System
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: Praesideo 4.0
- Software version: 4.0y (where y can be 0 or 1)

- Product description: Digital Public Address and Emergency Sound System
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: Praesideo 4.1
- Software version: 4.1

- Product description: 48 VDC Battery Charger
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-48CH12
- Hardware version: N/A
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: 48 VDC Battery Charger
- Trademark: PSD
- Family name: Praesideo
- Type Designation: PRS-48CHxx-DE (where xx can be 02, 05, 06 or 07)
- Hardware version: N/A
- Software version: 3.5x & 3.6y & 4.0y & 4.1

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- Product description: Audio Expander
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: LBB4402/00
 - Hardware version: 16/15
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Basic Amplifier 1 x 500 W
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PRS-1B500
 - Hardware version: 06/05
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Basic Amplifier 1 x 500 W
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PRS-1B500-EU
 - Hardware version: 06/05
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Basic Amplifier 2 x 250 W
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PRS-2B250
 - Hardware version: 06/05
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Basic Amplifier 2 x 250 W
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PRS-2B250-EU
 - Hardware version: 06/05
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Basic Amplifier 4 x 125 W
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PRS-4B125
 - Hardware version: 06/05
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Basic Amplifier 4 x 125 W
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PRS-4B125-EU
 - Hardware version: 06/05
 - Software version: 3.5x & 3.6y & 4.0y & 4.1

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- Product description: Basic Amplifier 8 x 60 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-8B060
- Hardware version: 06/05
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Basic Amplifier 8 x 60 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-8B060-EU
- Hardware version: 06/05
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Basic Call Station
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: LBB4430/00
- Hardware version: 06/15
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Call Stacker
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-CRF
- Hardware version: 01/10 & 06/10
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Call Station Interface
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-CSI
- Hardware version: 01/15 & 01/20 & 01/30
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Call Station Keypad
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: LBB4432/00
- Hardware version: 01/18 & 01/19
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Call Station Keypad Module
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-CSKPM
- Hardware version: 11/00
- Software version: 3.5x & 3.6y & 4.0y & 4.1

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- Product description: Call Station Module
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-CSM
- Hardware version: 11/00
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Cobranet Interface
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: LBB4404/00
- Hardware version: 03/10 & 03/15
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: EOL Supervision Board
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: LBB4443/00
- Hardware version: 01/05
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Fiber Interface
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-FIN
- Hardware version: 03/15
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Fiber Interface Non-Addressable
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-FINNA
- Hardware version: 03/15
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Fiber Interface Single-Mode
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-FINS
- Hardware version: 03/15
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: IP Audio Interface
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-1AIP1
- Hardware version: 2.0
- Software version: 3.5x & 3.6y & 4.0y & 4.1

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- Product description: Line Supervision Set
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: LBB4442/00
 - Hardware version: 01/10
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Loudspeaker DC blocking board
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PM1-LISD
 - Hardware version: 01/00
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Loudspeaker Line Isolator System Master
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PM1-LISM6
 - Hardware version: 01/00
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Loudspeaker Line Isolator with housing
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PM1-LISS
 - Hardware version: 01/00
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: LSP Supervision Board
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: LBB4441/00
 - Hardware version: 01/05
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Multichannel Interface
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PRS-16MCI
 - Hardware version: 04/10 & 04/15
 - Software version: 3.5x & 3.6y & 4.0y & 4.1
-
- Product description: Network Controller
 - Trademark: BOSCH
 - Family name: Praesideo
 - Type Designation: PRS-NCO3
 - Hardware version: 30/00 & 30/10
 - Software version: 4.0y & 4.1

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- Product description: Network Controller
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-NCO-B
- Hardware version: 21/05 & 21/08
- Software version: 3.5x & 3.6y

- Product description: Network Splitter
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-NSP
- Hardware version: 03/15
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Numeric Keypad
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-CSNKP
- Hardware version: 01/18
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Power Amplifier 1 x 500 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-1P500
- Hardware version: 06/05 & 06/10
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Power Amplifier 1 x 500 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-1P500-EU
- Hardware version: 06/10
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Power Amplifier 2 x 250 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-2P250
- Hardware version: 06/05 & 06/10
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Power Amplifier 2 x 250 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-2P250-EU
- Hardware version: 06/10
- Software version: 3.5x & 3.6y & 4.0y & 4.1

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- Product description: Power Amplifier 4 x 125 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-4P125
- Hardware version: 06/05 & 06/10
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Power Amplifier 4 x 125 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-4P125-EU
- Hardware version: 06/10
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Power Amplifier 8 x 60 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: LBB4428/00
- Hardware version: 04/05 & 05/05
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Power Amplifier 8 x 60 W
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: LBB4428/00-EU
- Hardware version: 05/05
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Power supply system with battery backup for Voice Alarm System Praesideo
- Trademark: Merawex
- Family name: Praesideo
- Type Designation: ZDSO400E-AK3
- Hardware version: N/A
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Praesideo Software
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-SW
- Hardware version: N/A
- Software version: 3.5x (where x can be 0,1,2 or 3)

- Product description: Praesideo Software
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-SW
- Hardware version: N/A
- Software version: 3.6y (where y can be 0 or 1)

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- Product description: Praesideo Software
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-SW
- Hardware version: N/A
- Software version: 4.0y (where y can be 0 or 1)

- Product description: Praesideo Software
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-SW
- Hardware version: N/A
- Software version: 4.1

- Product description: Remote Call Station
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-CSR
- Hardware version: 01/15 & 01/20 & 01/30
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Remote Call Station Module
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PRS-CSR
- Hardware version: 11/00
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: SPEC RCS Master
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PSP-D00039
- Hardware version: 03/15
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: SPEC RCS Slave
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: PSP-D00040
- Hardware version: 03/15
- Software version: 3.5x & 3.6y & 4.0y & 4.1

- Product description: Supervision Control Board
- Trademark: BOSCH
- Family name: Praesideo
- Type Designation: LBB4440/00
- Hardware version: 01/05
- Software version: 3.5x & 3.6y & 4.0y & 4.1

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The optional features of the specifications that are included in the product and test report:

The tested configuration of the Praesideo system is representative for comparable combinations of components as identified in annex no. 1 of this certificate. Each component may be installed multiple times into a Praesideo system. The installer is responsible for the correct selection of components and EN 54-16 compliance of the completely installed 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 TS8 series, with lockable glass door, side panels, temperature controlled top fans and having a fixed frame with a maximum height of 42 HU or a lockable swing frame with a maximum height of 40 HU.

Only batteries as mentioned in the user manuals of the battery chargers are allowed to be used and must be placed on the ground plane of the cabinet, free from the walls.

- 20130073PRAESIDEO Schroff cabinet

- 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 fire)	7.1, 7.8, 12	Pass
	7.4	N/A
Operation reliability	4, 5, 6, 7, 8, 11, 12, 13, 14	Pass
	9	N/A
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.

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Registered in Brussels: CertAlarm AISBL, 1080 Brussels, Boulevard Edmond Machtens 180

This certificate and the annex(es) may only be copied completely and without any additions.

The Cobranet Interface is only EN 54-16 compliant in combination with the Hirschmann Switch RSR20-0800M2M2T1UCCHPHH07.1.01.

The Hirschmann Switch may also be used to connect, within the cabinet, other EN54-16 compliant products as listed in annex no. 1.

There are four Praesideo systems possible:

- * Praesideo 3.5 system based on network controller PRS-NCO-B and PRS-SW software version 3.5x (where x can be 0, 1, 2 or 3)
- * Praesideo 3.6 system based on network controller PRS-NCO-B and PRS-SW software version 3.6y (where y can be 0 or 1)
- * Praesideo 4.0 system based on network controller PRS-NCO3 and PRS-SW software version 4.0y (where y can be 0 or 1)
- * Praesideo 4.1 system based on network controller PRS-NCO3 and PRS-SW software version 4.1

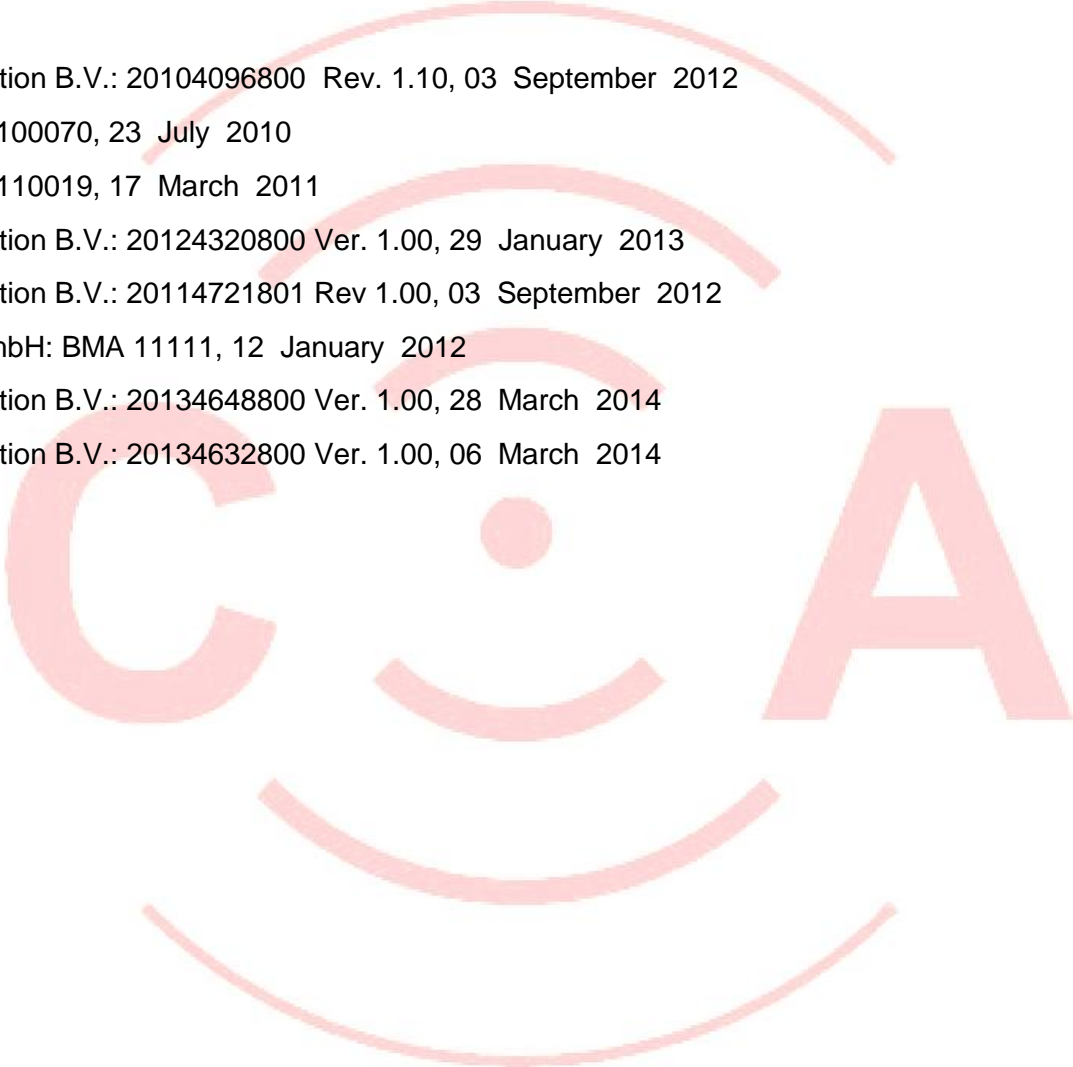
For proper operation with the Line Isolator System, consisting of the PM1-LISM6 master unit and slave devices PM1-LISS and PM1-LISD, the multi-channel interface PRS-16MCI must have hardware version HW 04/15 or newer.

Essential Characteristics of EN 54-4:	Clauses:	Performance:
Performance under fire condition	4, 5, 6	Pass
Operation reliability	4, 5, 6, 7, 8	Pass
Durability of operational reliability		
Temperature resistance	9.5	Pass
Durability of operational reliability		
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

Voice Alarm Equipment
 - 100V loudspeaker outputs

Test Report Numbers:

- Telefication B.V.: 20104096800 Rev. 1.10, 03 September 2012
- CNPP: 100070, 23 July 2010
- CNPP: 110019, 17 March 2011
- Telefication B.V.: 20124320800 Ver. 1.00, 29 January 2013
- Telefication B.V.: 20114721801 Rev 1.00, 03 September 2012
- VdS GmbH: BMA 11111, 12 January 2012
- Telefication B.V.: 20134648800 Ver. 1.00, 28 March 2014
- Telefication B.V.: 20134632800 Ver. 1.00, 06 March 2014



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CERTIFICATE

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Validity of Certificate:

The Certificate remains valid based upon satisfactory annual factory production control audits for Fire products or biennial factory production control audits for Security products and follow up re-testing as required by CertAlarm scheme rules.

Documents submitted:

- Assembly drawings
- Bill of materials
- Block diagram
- Electric diagrams
- Photos
- User manual
- Manufacturer's declarations

DISCLAIMER

The validity of this certificate is limited to products, which are equal to the one(s) examined.