

# **Network Controller**

The network control unit is the heart of the SemSound system. The unit routes up to 28 simultaneous audio channels, delivers power to the system, reports faults, and controls the system. Audio inputs can be announcements from call stations, background music, or local audio. The network control unit can be configured for the most complex public address

systems. The configuration can be done comfortably and efficiently via a PC. The PC is only needed for configuration. The controller can operate independently of the PC. However, the controller can use a PC to display information on the system status using the software, supplied with the unit. The unit can be freestanding on a tabletop or mounted in a 19" rack.

The SemSound network controller needs SemSound software version 4.0 or higher.

#### **Features**

- · Public address and emergency sound system control unit
- Control and routing of 28 simultaneous audio channels
- Ethernet interface for configuration, control, diagnostics, and logging
- Digital storage for pre-recorded messages
- EN 54-16 and ISO 7240-16 system certification



#### **Functions**

## Connectivity

The network controller has four analog audio inputs. Of these, two are selectable between microphone and line. The other two inputs are fixed as line inputs. The microphone/line inputs can be used as call inputs, if they are programmed conditionally to any of the eight control inputs, which are freely programmable for system actions, with freely programmable priorities. The line inputs provide selectable 20 kHz pilot tone detection for cable supervision.

The controller has four analog audio line outputs each with a selectable 20 kHz monitoring signal. Three control outputs are programmable for faults or calls, and two others are used to connect visual and audible fault indicators

A 24 Vdc auxiliary output is available that can be used to power an external visual fault and/or emergency light tower.

#### Controls and indicators

# Front

- 2 x 16-character LCD display
- Rotary/push button

#### Back

- Mains switch
- Voltage selector

#### Interconnections

#### **Front**

Headphone output

## Back

- Mains input
- Battery backup input
- Eight control inputs
- Two analog audio mic/line inputs
- Two analog line audio inputs
- Five control outputs (two dedicated fault)
- Four analog audio line outputs
- Ethernet
- RS232
- Two system network connections
- 24 Vdc auxiliary output

## **Certifications and Approvals**

Safety acc. to IEC 60065 / EN 60065 Immunity acc. to EN 55103-2 / EN 50130-4 /

EN 50121-4

Emissions acc. to EN 55103-1 / FCC-47 part 15B

Emergency acc. to EN 60849 / EN 54-16 /

ISO 7240-16

Maritime acc. to IEC 60945

Region Certification

Europe CPD

CE





# Mechanical

Dimensions (HxWxD)

tabletop, w/ feet 92 x 440 x 400 mm

(3.6 x 17.3 x 15.7")

in rack, w/ brackets 88 x 483 x 400 mm

(3.5 x 19 x 15.7")

in front of brackets 40 mm (1.6") behind brackets 360 mm (14.2") Weight 7 kg (15.4 lb)

Mounting Standalone; 19" rack Color Charcoal with silver

#### **Environmental**

Operating temperature -5 to  $+55^{\circ}$ C ( $+23^{\circ}$ F to  $+131^{\circ}$ F) Storage temperature -40 to  $+70^{\circ}$ C ( $-40^{\circ}$ F to  $+158^{\circ}$ F)

Humidity 15% to 90%

Air pressure 600 to 1100 hPa4 x line audio outputs

# Parts included

**Qty Component** 

- 1 8050670 Network Controller (Type PRS-NCO3-1)
- 1 Power cord
- 1 Set of mounting brackets for 19" rack
- 1 Set of feet
- 1 Set of connectors

# **Ordering Information**

8050670 Network Controller (Type PSP-D00018-1)

NOTE: This controller is NOT compatible with the PSP-D00018.



# **Power Amplifiers**

- 1, 2, 4, or 8 audio outputs (selection from 100 / 70 / 50 V outputs)
- · Audio processing and delay for each amplifier channel
- · Amplifier supervision and spare amplifier switching
- Loudspeaker line and loudspeaker supervision (LBB 4428/00 only line supervision)
- Eight control inputs and 1, 2, 4 or 8 control outputs

There are four types of Power Amplifier units in the SemSound product range. These differ in the number of amplifier channels per frame: one, two, four, or eight.

The overall power rating is 500 watts for all of the amplifiers.

The Power Amplifiers can be set to 100 V, 70 V and 50 V output tappings. They have short-to-ground and short-circuit detection functions, and can generate their own pilot tone for supervision purposes.

#### **Functions**

The Power Amplifiers receive input signals over the network. They also have two auxiliary audio inputs (four for LBB 4428/00) for local audio. Their eight control inputs are freely programmable for system actions, and priorities can be assigned to these inputs.

Each control input has the ability to monitor the attached line for open and short-circuits. Control outputs are freely programmable for faults and call related actions.

The 2 x 16-character display and the rotary control enable local status enquiries. The display shows the VU-meter reading, when the audio monitoring mode is active. Audio can be monitored by headphone.

The units are self-monitoring and continually report their status to the network controller. They support both single branch and redundant loop cabling. The amplifiers have a changeover facility for spare power amplifier switching. Changeover relays are included with the units. The amplifiers have a 48 V DC back-up supply input.

The digital audio processing can handle three parametric equalization sections and two shelving equalization sections per channel with configurable audio delay.

#### **Controls and indicators**

- · 2 x 16-character LCD for status display
- · Rotary/push control button
- · Mains switch
- Voltage selector for PSP-D0000x

# Interconnections

- Mains input
- · Battery backup input
- Two system network connections
- Two mic/line inputs (four for LBB 4428/00)
- Selectable 100 V, 70 V or 50 V outputs (per channel)
- Fixed 50 V output
- · Eight programmable control inputs
- · Control output (for each amplifier channel)
- Headphone output
- Spare amplifier connection (for each amplifier channel)





# Certifications and approvals

Region Certification

Europe CPD

CPD \_V3.6\_&\_V4.0

Safety acc. to IEC 60065 / EN 60065

Immunity acc. to EN 55103-2 / EN 50130-4 / EN 50121-4

Emissions acc. to EN 55103-1 / FCC-47 part 15B

Emergency acc. to EN 60849 / EN 54-16 /

ISO 7240-16

Maritime acc. to IEC 60945



Rear view of **8004249** (Type PSP-D00005-1) Power Amplifier 1 x 500 W



Rear view of **8053257** (Type PSP-D00006-1) Power Amplifier 2 x 250 W



Rear view of **8003311** (Type PSP-D00007-1) Power Amplifier 4 x 125 W



Rear view of **8003026** (Type PSP-D00008) Power Amplifier 8 x 60 W

#### Mechanical

Dimensions (H x W x D)

for tabletop use, w/ feet 92 x 440 x 400 mm

(3.6 x 17.3 x 15.7")

for 19" rack use,

in front of brackets

behind brackets

w/ brackets 88 x 483 x 400 mm

(3.5 x 19 x 15.7") 40 mm (1.6") 360 mm (14.2")

Weight

PSP-D00005-1 1x500W 12.6 kg (27.78 lb) PSP-D00006-1 2x250W 13.6 kg (29.98 lb) PSP-D00007-1 4x125W 16.1 kg (35.49 lb) PSP-D00008 8x60W 15.8 kg (34.83 lb)

Mounting Standalone; 19" rack Color Charcoal w/ silver

**Environmental** 

Storage temperature

Operating temperature -5 °C to +55 °C

(+23 °F to +131 °F) -40 °C to +70 °C

(-40 °F to +158 °F)

Relative humidity 15% to 90% Air pressure 600 to 1100 h Pa

Ordering information

8004249 Power Amplifier (Type PSP-

**D00005-1)** 1 x 500 W

8053257 Power Amplifier (Type PSP-

**D00006-1)** 2 x 250 W

8003311 Power Amplifier (Type PSP-

**D00007-1)** 4 x 125 W

8003026 Power Amplifier (Type PSP-D00008)

8 x 60 W



# **Call Station Remote**

## **Product Description**

- Connects to call station interface via CAT-5 cable
- Up to 1 km from SemSound optical network
- Uses standard SemSound keypads for extension
- Built-in limiter
- · Powered via CAT-5 and/or local power supply

**8003027** is a call station with the same functionality as the basic call station **8003312** but it uses CAT-5 cable for its connection to the SemSound network. It connects, one-to-one, to the call station interface **8003304**, which is part of the SemSound optical network.

The CAT-5 cable, carrying digital audio and control data, can be as long as 1 km. The length of the CAT-5 cable is not a part of the SemSound optical network length. This considerably increases the overall possible length of the optical network.

The Remote Call Station can be extended with up to 16 keypads use **8003028** with eight programmable keys.

Extension with a numeric keypad is also possible.



#### **Functions**

The call station has a cardioid, supervised microphone on a gooseneck stem with good speech intelligibility. A limiter and a speech filter improve intelligibility and prevent clipping of the audio. It has a volume control for the monitoring speaker and the headset. When it plays a chime or a pre-recorded message, the call station activates its speaker. When a headset is connected, it replaces the microphone and speaker.

The remote call station connects via a CAT-5 cable to a **8003304** unit, which interfaces it to the SemSound optical network. The call station gets its power from the interface unit via the CAT-5 cable, but is also equipped with a local power supply connection for extreme cases with a very long cable and many keypads.

Up to 16 call station keypads can connect to the station via a serial communication link. The call station provides the power for the keypads. Up to 224 priorities can be assigned to the call station. All configuration can be done via the SemSound network controller.

The remote call station is fully supervised and supports fail-safe operation. Even if the SemSound network controller fails, the call station is still able to put through emergency calls.

#### **Controls and indicators**

- Three status LEDs
- Configurable PTT-key
- Volume control for loudspeaker/headset

#### Interconnections

- · RJ45 connector for CAT-5 connection
- Serial data and power supply interface for call station keypads
- · Kycon type (lockable) connector for power and two control inputs
- 3.5 mm jack for headset/headphone





# Certifications and approvals

Certification Region

Europe CE CPD

acc. to IEC 60065 / EN 60065 Safety **Immunity** acc. to EN 55103-2 / EN 50130-4 /

EN 50121-4

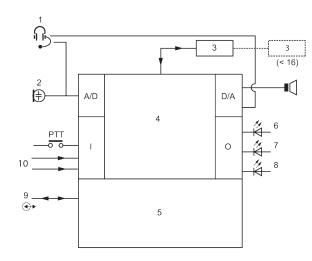
acc. to EN 55103-1 / FCC-47 part 15B Emissions

acc. to EN 60849 / EN 54-16 / Emergency

ISO 7240-16

Maritime acc. to IEC 60945

# Installation/Configuration notes



- 1. Headset
- 2. Microphone
- 3. Keypad(s)
- 4. Network processor and DSP
- 5. Network redundancy switching
- 6. Power/error
- 7. Call station status (two-colour)
- 8. Network status
- 9. Data connection (CAT-5)
- 10. Control input

# **Technical specifications**

**Electrical** 

External power supply 18 to 56 VDC

Power consumption 3.3 W at 48 V without keypads

Microphone

Nominal acoustic

input level 75 to 90 dB SPL S/N > 60 dB at 85 dB SPL Frequency response 340 Hz to 14 kHz (-3 dB)

Loudspeaker

S/N 80 dB at max.

Sound pressure level 85 dB (SPL) at 0.5 m and 1 kHz

Headset

Connector 3.5 mm jack Recommended type Hosiden HBH 0058

**Control inputs** 

Closing contact Operation

(w/ supervision)

Mechanical

90 x 160 x 200 mm (HxWxD) Dimensions

 $(3.5 \times 6.3 \times 7.9")$ 

Length of goose neck 380 mm (15") Weight 1 kg (2.2 lb) Mounting Standalone Color Charcoal

**Environmental** 

-5 °C to +45 °C Operating temperature

(+23 °F to +113 °F)

Storage temperature -20 °C to +70 °C

(-4 °F to +158 °F)

15% to 90%

Humidity Air pressure 600 to 1100 hPa

# **Ordering information**

8003027 Call Station Remote

#### Accessories

8003304 Call Station Interface (Type PRS-CSI)

8003028 Call Station Keypad (Type

LBB4432/00)



# **Call Station Basic**

The call station basic is used to make manual or pre-recorded announcements to any pre-assigned zones or to executing predefined actions. The call station basic has a microphone on a flexible stem to transmit speech over the network, one push-to-talk button and a headset socket. When a headset is connected the microphone and speaker are muted.

#### **Features**

- · Redundant network connection
- Power 'ON' indication
- · Status/fault indications
- Differentiation in indications for higher- and lower-priority announcements
- · Supervision of microphone capsule
- · Stylish and modern design



- The call station basic has a limiter and a speech filter with a cutoff frequency at 340 Hz. This improves intelligibility and prevents clipping of the audio input on low-frequency signals.
- The call station basic can be connected to a maximum of 16 call station keypad units via a serial communication link.
- The power supply to the call station keypad units is provided from the call station.
- · The call station basic has a volume control for the monitoring loudspeaker and headset.
- The call station basic can be programmed for momentary actions on make contact and toggle actions without repeat on make contact.
- · Up to 224 priorities can be assigned.
- Analog to digital audio conversion is handled by the call station.
- The call station basic has a DSP which can be used for audio processing, including adjustment of sensitivity, limiter and parametric equalizer settings.
- The monitoring loudspeaker is switched on when the call station activates a chime or pre-recorded message.

#### **Certifications and Approvals**

Safety acc. to IEC 60065 / EN 60065

Immunity acc. to EN 55103-2 / EN 50130-4 / EN 50121-4

Emissions acc. to EN 55103-1 / FCC-47 part 15B Emergency acc. to EN 60849 / EN 54-16 / ISO 7240-16

Maritime acc. to IEC 60945

Region Certification

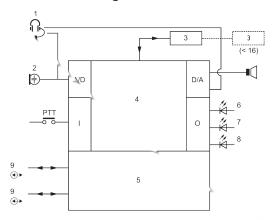
Europe CE CPD

Poland CNBOP





# Installation/Configuration Notes



- 1 Headset
- 2 Microphone
- 3 Keypad(s)
- 4 Network processor and DSP
- 5 Network redundancy switching
- 6 Power/error
- 7 Call station status
- 8 Network status
- 9 Network connections

#### **Interfaces**

- 2 x system network connection
- Serial data and power supply interface for call station keypad units.
- 3.5 mm jack for headset

#### **Indications and Controls**

The call station basic has:

- · Volume control for loudspeaker/headset
- Configurable PTT-key
- Three 2-colour LEDs which indicates the status:

# **Technical Specifications**

Power Consumption 4.4 W (DC) excluding key

pads

External power supply 18 to 56 VDC

Microphone

Nominal acoustic input level 75 to 90 dB SPL SNR >60 dB at 85 dB SPL

Frequency Response 340 Hz to 13.5 kHz

(-3 dB)

Loudspeaker

SNR 80 dB at max. output Sound pressure level 85 dB (SPL) at 0.5 m

and 1 kHz

Headset

Connector 3.5 mm jack
Recommended type Hosiden HBH 0058

Mechanical

Dimensions (HxWxD) 90 x 160 x 200 mm

Length of mic
Weight
Colour
Mounting
Was A Too X 250
380 mm
0.95 kg
Charcoal grey
Tabletop

#### **Environmental**

Operating temperature -5 °C to +45 °C

(+23 °F to +113 °F)

Storage temperature -20 °C to +70 °C

(-4 °F to +158 °F)

Humidity 15% to 90% Air pressure 600 to 1100 hPa

# **Ordering information**

# 8003312 Call Station Basic (Type LBB4430/00)

has a microphone on a flexible stem, a push-to-talk button, a speaker, and a headset socket.

## Accessories

# 8003028 Call Station Keypad

has eight programmable buttons, each with a two-colour status LED.



# **Call Station Interface**

#### **Product Description**

- Connects a remote call station to the SemSound network via CAT-5 cable (up to 1 km)
- Powered by the SemSound network and/or local power supply
- Two supervised control inputs
- Built-in DSP for audio processing functions
- · Complete supervision of the unit



The Call Station Interface is an interface between a single remote call station, Remote Call Station, or a remote call station kit, and the fiber optical SemSound network. It uses CAT-5 cable for the connection to the remote call station. The CAT-5 cable, carrying digital audio and control data, can be as long as 1 km. The length of the CAT-5 cable is not a part of the SemSound optical network length. This considerably increases the overall possible length of the optical network, especially in cases, where the call station is located far from the rest of the system.

The call station interface can get its power from the SemSound network, and/or from a local power supply. It is fully supervised.

#### **Functions**

The interface can connect a single remote call station or remote call station kit to a SemSound system with up to 1 km of CAT-5 cable.

The interface is fully digital, supporting high-quality sound with a built-in DSP for audio processing of the remote call station. It supports complete supervision of itself, the call station, and the connection, as well as of two control inputs. It supports the fail safe mode of remote call stations, allowing them to put through emergency calls, even if the network controller fails.

The unit is configured via the network controller.

# **Controls and indicators**

- · Two LED indicators for power and network status
- Two jumpers (below cover) to separate power supply of call station interface and remote call station.

## Interconnectors

- Two SemSound network connectors
- RJ45 connector for CAT-5 connection
- · Kycon type (lockable) connector for power and two control inputs

# **Certifications and approvals**

Safety acc. to IEC 60065 / EN 60065

Immunity acc. to EN 55103-2 / EN 50130-4 / EN 50121-4 Emissions acc. to EN 55103-1 / FCC-47 part 15B Emergency acc. to EN 60849 / EN 54-16 / ISO 7240-16

Maritime acc. to IEC 60945

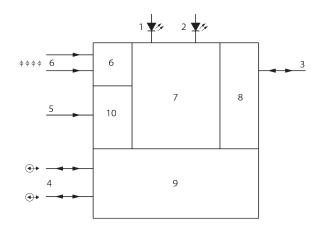
Region Certification

Europe CE CPD

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# **Installation / Configuration Notes**



- 1 Fault LED
- 2 Power LED
- 3 CAT-5
- 4 POF
- 5 External (back-up) power 18-56 V
- 6 Control inputs
- 7 Network processor and DSP
- 8 UTP interface
- 9 Network redundancy switching
- 10 Power supply

# **Technical Specifications**

#### **Electrical**

External power supply 18 to 56 VDC Power consumption 3.7 W Control inputs 2 x

Operation Closing contact

(w/ supervision)

# Mechanical

Dimensions 27 x 243 x 80 mm w/o bracket

 $(H \times W \times D)$   $(1.1 \times 9.6 \times 3.1")$ 

34 x 243 x 84 mm w/ bracket

(1.3 x 9.6 x 3.3") 0.7 kg (1.5 lb)

Weight 0.7 kg (1.5 lb)
Mounting Bracket (2 screws)

Color Charcoal

#### **Environmental**

Operating temperature -5 °C to +55 °C

(+23 °F to +131 °F)

Storage temperature -20 °C to +70 °C

(-4 °F to +158 °F)

Humidity 15% to 90%
Air pressure 600 to 1100 hPa

# Parts included Qty Component

Call Station Interface

1 Power supply connector

# Ordering information

8003304 Call Station Interace (Type PRS-CSI)

#### **Accessories**

8003027 Call Station Remote (Type PRS-CSR)

8003227 Call Station Remote Kit (Type PRS-

CSRK)



# **Call Station Keypad**

The call station keypad is used in combination with the call station basic to make manual or pre-recorded announcements to any assigned zones, to select the zones or to execute predefined actions. The call station keypad has 8 programmable buttons.

#### **Features**

- Stylish and modern design
- 8 freely programmable selection keys
- · Serial data and power interface to call station basic
- Up to 16 keypads can be connected to one call station basic or remote call station
- Activation indicator for each key



#### **Functions**

- The keys of the call station keypad can be programmed for the following actions:
  - control system functions: recall of selection, live announcement, cancel selection, BGM off, BGM volume control, fault acknowledgement, etc.
  - select resources: BGM selection, pre-recorded message selection, attention and alarm tone selection.
  - zone selection, system control output selection
- Each key on the call station keypad has one 2-color LED.
- The call station keypad has input and output connections for serial data and power supply.
- The keys have a transparent button for placing the name of the action or zone assigned to that key.
- Safety covers to prevent accidental activation of the keys are available as an option.
- The power supply for the call station keypad is provided by the call station basic.
- The keys of the call station keypad can be programmed for momentary or toggle operation.

## **Certifications and Approvals**

Safety Acc. to IEC 60065 / EN 60065

Immunity Acc. to EN 55103-2 / EN 50130-4 / EN 50121-4

Emissions Acc. to EN 55103-1 / FCC-47 part 15B Emergency Acc. to EN 60849 / EN 54-16 / ISO 7240-16

Maritime Acc. to IEC 60945

Region Certification

Europe CE

CPD

Poland CNBOP

#### **Indications and Controls**

8 function keys

8 two-colour LED's, with the following indications:

Indication 1..8

Yellow On The selected resources are occupied by a lower-priority announcement

Yellow Flashing 
The selected resources are occupied by an announcement with higher or equal

priority

Green On The selected resources are available or reserved for executing an action from that

particular station

Key 1..8

Not Pressed Nothing is active, no LED indication. If a function is still active, then LED indication is still on

Pressed Function(s) is (are) activated, LED indication switches on





# **Technical Specifications**

Power Consumption 1.5W (DC)

#### Mechanical

Mounting By fixing bracket to the call station basic or to other keypad

Dimensions 70 x 95 x 200 mm (HxWxD)

Weight 0.3 kg

Color Charcoal grey

# **Environmental**

Operating temperature  $$-5\ ^{\circ}\text{C}$$  to +45  $^{\circ}\text{C}$  (+23  $^{\circ}\text{F}$  to +113  $^{\circ}\text{F}$ ) Storage temperature  $$-20\ ^{\circ}\text{C}$$  to +70  $^{\circ}\text{C}$  (-4  $^{\circ}\text{F}$  to +158  $^{\circ}\text{F}$ )

Humidity 15% to 90%
Air pressure 600 to 1100 hPa

Ordering information 8003028 Call Station Keypad (Type LBB4432/00)

# **Accessories**

8003034 Set of Key Covers (10 pcs)



# **End of Line (EOL) Supervision Board**

- Loudspeaker line monitoring without additional cabling
- Open-circuit fault detection
- Compatible with 100 V and 70 V loudspeaker lines
- Powering of the supervision-board from the power amplifier
- Communication is not affected by the audio signals on the line



The board monitors the integrity of a loudspeaker line. The boards work together with the 8003030 (LBB4440/00) Supervision Control Board to monitor the status of the loudspeaker line and all of its branches. The line status is communicated to the Supervision Control Board via the existing loudspeaker cable.

#### **Functions**

The board is mounted inside the case of the last loudspeaker on the loudspeaker line, or inside a separate case. Supervision of branched lines is possible. If a loudspeaker line has multiple branches, a separate EOL Supervision Board is required for the last loudspeaker in each branch. The board detects and reports line faults within 100 s. Interconnections

- Two 30 cm flying leads Two faston connectors
- Certifications and approvals

acc. to IEC 60065 / EN 60065 Safety **Immunity** acc. to EN 55103-2 / EN 50130-4 /

EN 50121-4

Emissions acc. to EN 55103-1 / FCC-47 part 15B

Emergency acc. to EN 60849 / EN 54-16 /

ISO 7240-16

Maritime acc. to IEC 60945

**Region Certification** 

Europe CE

CPD

Poland CNBOP

# **Technical specifications** Mechanical

Dimensions 78 x 60 x 22 mm (HxWxD) (3.0 x 2.3 x 0.8") Weiaht 70 a (2.4 ounces)

Mounting Internally in the loudspeaker An optional mounting bracket,

8003189 is available

**Environmental** 

Operating temperature

-5 °C to +55 °C (+23 °F to +131 °F)

Storage temperature

-20 °C to +70 °C (-4 °F to +158 °F)

Humidity 15% to 90% 600 to 1100 hPa Air pressure

Ordering information

8003031 End of Line (EOL) Supervision Board (Type LBB4443/00)

8057902 End o Line Atex ExD IIC 150 x 150 x 120 mm

Certificate: SIRA02ATEX1311

Accessories

8003030 Supervision Control Board (Type LBB4440/00)

> for use in the power amplifier on each amplifier channel

8003189 **Set of Supervision Board Brackets** 

(10 pcs) (Type LBB4446/00)



# **Supervision Control Board**

- Multiple speaker and line monitoring without additional cabling
- · Mounted inside the power amplifier
- · Controls up to 80 speaker and line supervision boards
- Open-circuit fault detection
- Compatible with 100 V and 70 V loudspeaker lines



The board controls the communication between the SemSound system and the loudspeaker or loudspeaker line supervision boards.

The **8003030** is the supervision control board, monitoring multiple supervision-slave boards (**8003313**) Loudspeaker Supervision Board and **8003031** EOL Supervision Board), which are mounted inside the loudspeakers on the line. With these boards working together, it is possible to supervise 16, 64, or up to 80 loudspeakers or loudspeaker lines on a 500-watt amplifier.

#### **Functions**

Each amplifier channel in an SemSound Power Amplifier unit has an internal mechanical and electrical provision for a SemSound Supervision Control Board. Communication between the supervision boards takes place inaudibly over the loudspeaker line, requiring no additional wiring. The audio signals on the lines do not affect communication

Monitoring can be switched on and off from the configuration software. The monitoring of the presence of supervisor boards is continuous. Loudspeaker faults are detected and reported within 300 s, and line faults are detected and reported within 100 s.

#### Interconnections

20-pin connector and flat cable

Certifications and approvals

Region Certification

Europe CE Declaration of

Conformity

CE

CPD

Poland CNBOP

Safety acc. to IEC 60065 / EN 60065

Immunity acc. to EN 55103-2 / EN 50130-4

/ EN 50121-4

Emissions acc. to EN 55103-1 /

FCC-47 part 15B

Emergency acc. to EN 60849 / EN 54-16 /

ISO 7240-16

Maritime acc. to IEC 60945

Required loudspeaker line characteristics:

Preferred cable Single twisted pair, 0.75 mm<sup>2</sup> to

1.5 mm<sup>2</sup>

Maximum length 1 km (including branches, max.

300 m adjacent to other supervised

loudspeaker cables)

Maximum loop

resistance 38 ohm

Maximum

inductance 750 µH

Minimum total loudspeaker

impedance 50 ohm @ 70 kHz

(independent of amplifier power)

Maximum

capacity 300 nF

Maximum number of supervision

boards per

amplifier channel 80 @ 500 W

40 @ 250 W

20 @ 125 W

Loudspeaker

voltage 70 V, 100 V

#### Note

The use of multi-wire cables is not recommended in combination with line supervision, because crosstalk between audio channels may influence the line supervision

If the maximum load capacity for the power amplifier output is less than 300 nF, the maximum load capacity of the power amplifier is leading.



# **SemSound**

# **Technical specifications**

#### Mechanical

Dimensions (HxWxD) 60 x 50 x 17 mm w/o bracket

(2.4 x 2.0 x 0.7")

Weight 30 g (1 ounce)

Mounting Internally in the power amplifier

Plastic brackets for horizontal and vertical

installation included

#### **Environmental**

Operating temperature  $\,$  -5 °C to +55 °C (23 to 131 °F) Storage temperature  $\,$  -20 °C to +70 °C (-4 to 158 °F)

Humidity 15% to 90% Air pressure 600 to 1100 hPa

# **Ordering information**

# 8003030 Supervision Control Board (Type LBB4440/00)

for use in the power amplifier on each amplifier channel

# **Accessories**

# 8003313 Loudspeaker Supervision Board (Type LBB4441/00)

monitors the integrity of a loudspeaker

# 8003031 End o Line (EOL) Supervision Board (Type LBB4443/00)

monitors the integrity of a loudspeaker line