

## LBC3432/03 Sound projector 20W metal unidirectional



The LBC 3432/03 is a powerful 20 W sound projector intended for speech and music reproduction in indoor and outdoor applications. The sturdy, aluminum enclosure is finished in the color white. It has provisions for cable loop through connection and inside mounting of a line- or loudspeaker-supervision board. The sound projector is suitable for use in voice alarm systems.

### Functions

Voice alarm loudspeakers are specifically designed for use in buildings where performance of systems for verbal communication announcements is governed by regulations. The LBC 3432/03 is designed for use in voice alarm systems and is compliant with British Standard BS 5839-8 and EN 60849.

The sound projector has provision inside for mounting an optional line/loudspeaker supervision board.

The loudspeaker has built-in protection to secure that, in the event of a fire; damage to the loudspeaker does not result in failure of the circuit to which it is connected. In this way, system integrity is maintained; ensuring loudspeakers in other areas can still be used to inform people of the situation. The loudspeaker has a ceramic terminal block, thermal fuse and heat resistant, high-temperature wiring.

- ▶ Excellent speech and music reproduction
- ▶ Provision for supervision board mounting
- ▶ (Suspended) ceiling and/or wall mounting
- ▶ Water and dust protected to IP 66
- ▶ EN 54-24 certified

The sound projector is constructed from extruded aluminum and finished in white. The front-grill, rear cover and bracket are made from aluminum to increase corrosion resistance.

### Regulatory information

#### Quality assurance

All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 60268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that they can withstand two times their rated power for short durations. This ensures improved reliability under extreme conditions, leading to higher customer satisfaction, longer operating life, and lessens the chance of failure or performance deterioration.

Safety	acc. to EN 60065
Emergency	acc. to EN 54-24 / BS 5839-8 / EN 60849
Water and dust protection	acc. to IEC 60529, IP 66 IP33C verified for EN54-24 by CNBOP

### Installation/configuration notes

#### Mounting

A sturdy aluminum mounting bracket is supplied to allow easy mounting and directing in virtually any position. The sound projector may also be suspended using the bracket.

**Power Setting**

The loudspeaker includes a transformer for both 70 V and 100 V with taps on the primary winding for different power settings.

The required power radiation (in 3 dB steps) can easily be selected by connecting to the appropriate tap.

The connection cable is fed out through an ABS cable gland (PG13.5) in the rear cover.

The wires can be terminated on the ceramic screw terminal.

For loop-through connection, the rear cover is fitted with a second hole (covered as standard supplied). In the rear cover, an provision for inside mounting of the optional line-/loudspeaker- supervision board is available.

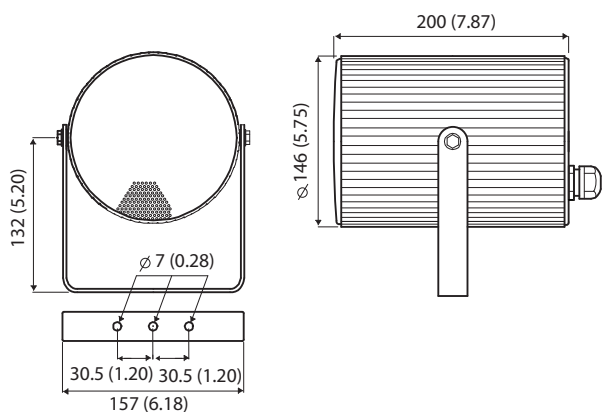


Fig. 1: Dimensions in mm / (in)

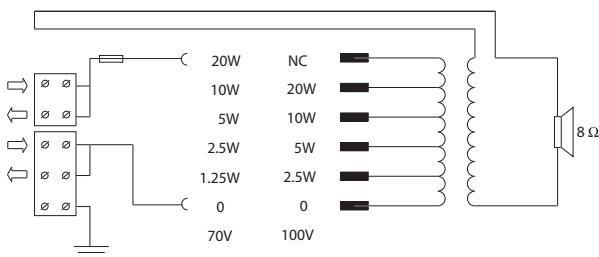


Fig. 2: Circuit diagram

**Parts included**

Quantity	Component
1	LBC3432/03 Unidirectional Sound Projector 20 W
1	Installation Instruction

**Technical specifications**

**Electrical\***

Maximum power (W)	30 W
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Rated power (W)	20 W
Transformer taps 100 V line (W)	20 W; 5 W; 2.5 W; 10 W
Sensitivity (1 W, 1 m, 1 kHz octave) (dB)	93 dB
Sensitivity (1 W, 4 m, 100 Hz - 10 kHz) (dB), acc. EN54-24	81 dB
Sound pressure level (rated power, 1 m, 1 kHz octave) (dB)	106 dB
Sound pressure level (rated power, 4 m, 100 Hz - 10 kHz) (dB), acc. EN54-24	93 dB
Frequency range (-10 dB) (Hz)	180 Hz - 20,000 Hz
Coverage angle HxV (-6 dB, 500 Hz) (°)	360° x 360°
Coverage angle HxV (-6 dB, 1 kHz) (°)	180° x 180°
Coverage angle HxV (-6 dB, 2 kHz) (°)	110° x 110°
Coverage angle HxV (-6 dB, 4 kHz) (°)	50° x 50°
Rated impedance 100 V line (Ω)	500 Ω @20 W
	1000 Ω @10 W
	2000 Ω @5 W
	4000 Ω @2.5 W

\*Technical performance data acc. to IEC 60268-5

**Note:**

- The specification data was measured in an anechoic chamber, free-field.
- The reference plane is on the grille surface and perpendicular to the reference axis.
- The reference axis is perpendicular to the center point of the front grille surface.
- The horizontal plane contains the reference axis and is perpendicular to the reference plane.

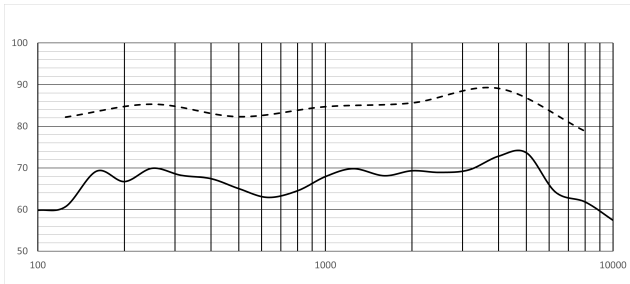


Fig. 3: Frequency response graph (– 1/3<sup>rd</sup> octave dB SPL @1 W(100 Hz – 10 kHz), 4 m; -- 1/1<sup>th</sup> octave dB SPL @1 W(100 Hz – 10 kHz), 1 m)

(1/3) <sup>rd</sup> octave band	dB SPL at 4 m
100	59.8
125	60.7
160	69.2
200	66.7
250	69.9
315	68.2
400	67.4
500	65
630	62.9
800	64.5
1000	67.9
1250	69.8
1600	68.1
2000	69.3
2500	68.9
3150	69.5
4000	72.8
5000	73.6
6300	64.2
8000	61.8
10000	57.4

(1/1) <sup>th</sup> octave band	dB SPL at 1 m
125	82.2
250	85.3
500	82.3
1000	84.7
2000	85.6
4000	89.1
8000	78.8

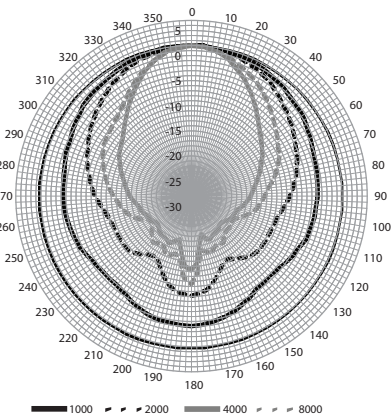


Fig. 4: Polar diagram

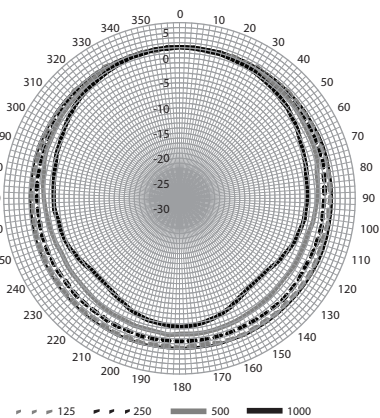


Fig. 5: Polar diagram

**Mechanical**

Dimensions (Ø x D) (mm)	146 mm x 200 mm
Dimensions (Ø x D) (in)	5.7 in x 7.9 in
Weight (kg)	2.6 kg

Weight (lb)	5.7 lb
Color (RAL)	RAL 9010 Pure white
Material	Aluminum
Connector	Screw terminal block
Cable diameter (mm)	6 mm - 12 mm
Cable diameter (in)	0.24 in - 0.47 in

**Environmental**


Operating temperature (°C)	-25 °C – 55 °C
Operating temperature (°F)	-13 °F – 131 °F
Storage temperature (°C)	-40 °C – 70 °C
Storage temperature (°F)	-40 °F – 158 °F
Transportation temperature (°C)	-40 °C – 70 °C
Transportation temperature (°F)	-40 °F – 158 °F
Operating relative humidity, non-condensing (%)	0% – 95%
Water/dust protection	Acc. To EN 60529 IP66

**Ordering information**

**LBC3432/03 Sound projector 20W metal unidirectional**

Sound projector 20 W, unidirectional, aluminum extruded enclosure, U-bracket mounting, water and dust protected IP66, EN54-24 certified, white RAL 9010.

Order number **LBC3432/03 | F.01U.269.035**  
**F.01U.385.434 F.01U.389.312**

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Bosch Security Systems BV Torenallee 49, 5617 BA Eindhoven, the Netherlands 13 1438-CPR-0328
EN 54-24:2008 Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings Sound Projector 20 W LBC3432/03 DoP: LP052914v1

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