

## LBC3430/03 Sound projector 12W metal bi-directional



The LBC 3430/03 is a 12 W bidirectional sound projector intended for speech and music reproduction in indoor and outdoor applications. The two loudspeakers facing in opposite directions are ideally suited to applications such as subway tunnels, long corridors and shopping arcades. 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 3430/03 is designed for use in voice alarm systems and is compliant with British Standard BS 5839-8 and EN 60849.

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.

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

- ▶ Excellent speech and music reproduction
- ▶ Ceiling and/or wall mounting
- ▶ Robust aluminum extrusion enclosure
- ▶ Water and dust protected to IP 55
- ▶ EN 54-24 certified

### 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 55 IP34C verified for EN54-24 by CNBOP

### Installation/configuration notes

#### Mounting

The sound projector can be mounted to the ceiling or wall by means of two screws. The connection cable is fed out through an ABS cable gland (PG13.5) in the base of the mounting bracket. The wires can be terminated on the inside ceramic screw terminal block.

For loop-through connection, the cover plate is fitted with a second hole (covered as standard supplied).

**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 via a rotary vari-tap switch, located close to the screw terminal block.

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

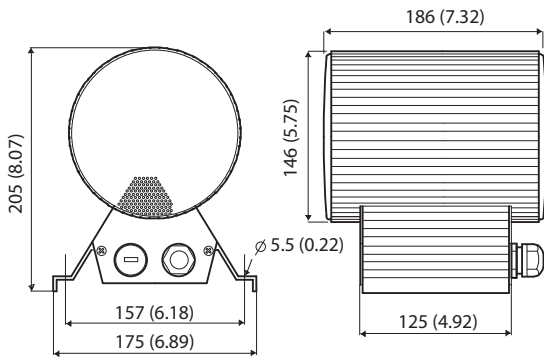


Fig. 1: Dimensions in mm/(in)

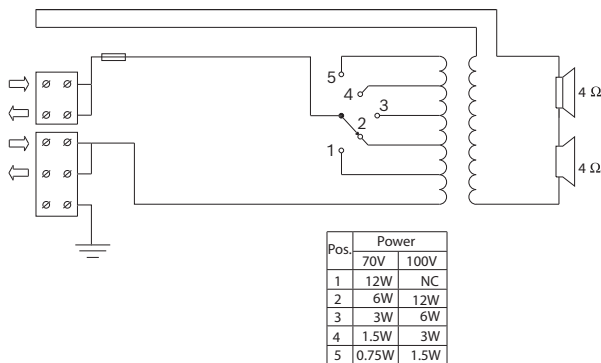


Fig. 2: Circuit diagram

Parts included	
Quantity	Component
1	LBC3430/03 Bidirectional Metal Sound Projector 12 W
1	Installation Instruction

**Technical specifications**

**Electrical\***

Maximum power (W)	18 W
Rated power (W)	12 W
Transformer taps 70 V line (W)	0.75 W; 1.5 W; 3 W; 6 W; 12 W
Transformer taps 100 V line (W)	1.5 W; 3 W; 6 W; 12 W

Sensitivity (1 W, 1 m, 1 kHz octave) (dB)	93 dB
Sensitivity (1 W, 4 m, 100 Hz - 10 kHz) (dB), acc. EN 54-24	79 dB
Sound pressure level (rated power, 1 m, 1 kHz octave) (dB)	100 dB
Sound pressure level (rated power, 4 m, 100 Hz - 10 kHz) (dB), acc. EN 54-24, direction 1	87 dB
Sound pressure level (rated power, 4 m, 100 Hz - 10 kHz) (dB), acc. EN 54-24, direction 2	87 dB
Frequency range (-10 dB) (Hz)	200 Hz – 19,000 Hz
Coverage angle HxV (-6 dB, 500 Hz) (°)	2 x (130° x 130°)
Coverage angle HxV (-6 dB, 1 kHz) (°)	2 x (158° x 158°)
Coverage angle HxV (-6 dB, 2 kHz) (°)	2 x (146° x 146°)
Coverage angle HxV (-6 dB, 4 kHz) (°)	2 x (48° x 48°)
Rated input voltage (V)	70 V; 100 V
Rated impedance 70 V line (Ω)	416 Ω @12 W 833 Ω @6 W 1666 Ω @3 W
Rated impedance 100 V line (Ω)	833 Ω @12 W 1666 Ω @6 W 3333 Ω @3 W 6666 Ω @1.5 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.

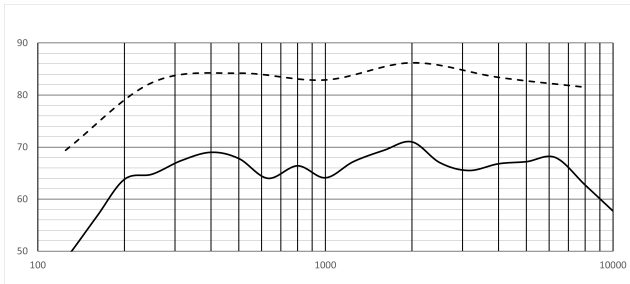


Fig. 3: Frequency response graph (— 1/3<sup>rd</sup> octave dB SPL @1 W(100 Hz – 10 kHz), 4 m; - - 1/1th octave dB SPL @1 W(100 Hz – 10 kHz), 1 m)

(1/3) <sup>rd</sup> octave band	dB SPL at 4 m
100	42.1
125	48.5
160	56.6
200	63.8
250	64.8
315	67.4
400	69
500	67.8
630	64
800	66.4
1000	64.1
1250	67.2
1600	69.4
2000	71
2500	67
3150	65.5
4000	66.8
5000	67.2
6300	68
8000	62.7
10000	57.7

(1/1) <sup>th</sup> octave band	dB SPL at 1 m
125	69.4

(1/1) <sup>th</sup> octave band	dB SPL at 1 m
250	82.4
500	84.2
1000	82.9
2000	86.2
4000	83.4
8000	81.5

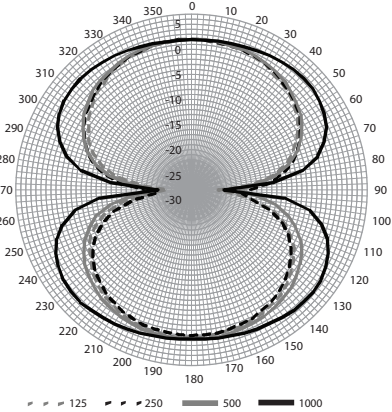


Fig. 4: Polar diagram

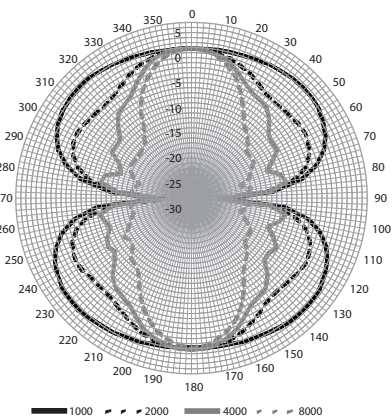


Fig. 5: Polar diagram

**Mechanical**

Dimensions (Ø x D) (mm)	146 mm x 186 mm
Dimensions (Ø x D) (in)	5.70 in x 7.32 in
Weight (kg)	3.50 kg
Weight (lb)	7.72 lb
Color (RAL)	RAL 9010 Pure white

Material	Aluminum
Connector type	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
Relative humidity	<95%



1438

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EN 54-24:2008

Loudspeaker for voice alarm systems for fire detection  
 and fire alarm systems for buildings

Sound Projector 12 W  
 LBC3430/03  
 Type B  
 DoP: LP052917v1

**Ordering information**

**LBC3430/03 Sound projector 12W metal bi-directional**  
 Sound projector 12 W, bidirectional, aluminum  
 extruded enclosure, water and dust protected IP55,  
 EN54-24 certified, white RAL 9010.  
 Order number **LBC3430/03 | F.01U.269.034**

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