

LBC 3090/01 Ceiling Loudspeaker



Security Systems



- Suitable for speech and music reproduction
- Increased sensitivity
- Flush-mounting in ceiling cavity
- Easy to install
- Protective dust cover
- Optional certified fire dome
- Simple power setting
- Matching surface mounting box
- Comply with international safety regulations

The LBC 3090/01 is an economic flush-mounting ceiling loudspeaker for general purpose applications. It is a full range loudspeaker for speech and music reproduction in shops, department stores, schools, offices, sports halls, hotels and restaurants.

Functions

The LBC 3090/01 has a single-piece, 6 W dual cone loudspeaker. A 100 V matching transformer is mounted behind the front panel assembly. The moulded plastic front panel is mounted onto the loudspeaker's metal frame, and a dust cover protects the rear. The appearance and colour are unobtrusive in any interior.

Parts Included

Quantity	Component
1	LBC 3090/01 Ceiling Loudspeaker
1	182 mm Circular Template

Certifications and Approvals

All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 268-5 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 extra reliability under extreme conditions, leading to higher customer satisfaction, longer operating life, and much less chance of failure or performance deterioration. All plastic parts are manufactured from self-extinguishing high-impact ABS material (according to UL 94V0).

Safety	EN 60065
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Installation/Configuration Notes

Installation

Installation is both quick and easy as the unit(s) have two built-in spring-loaded locking clamps that secure them into holes in the ceiling (for suspended ceilings and wall boards from 9 to 25 mm thick). Alternatively, they can be fixed with four screws (using pre-drilled holes) in ceiling or wall panels less than 9 mm thick. A circular template for marking a 182 mm (7.1 in) diameter hole is included with the loudspeaker.

BOSCH

Terminal Block

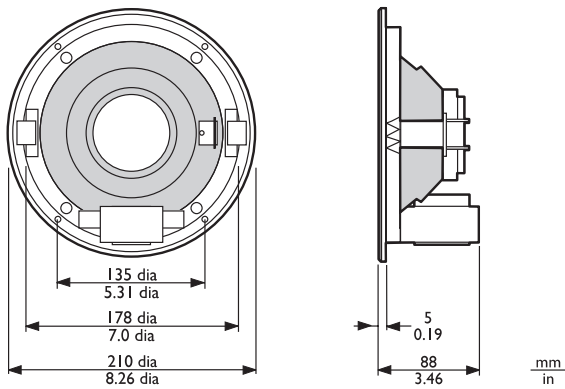
The unit has a two-way terminal block with push connections suitable for loop-through wiring. Three primary taps are provided on the matching transformer to allow selection of nominal full- power, half-power or quarter-power radiation (i.e. in 3 dB steps).

LBC 3091/01 Surface Mounting Box

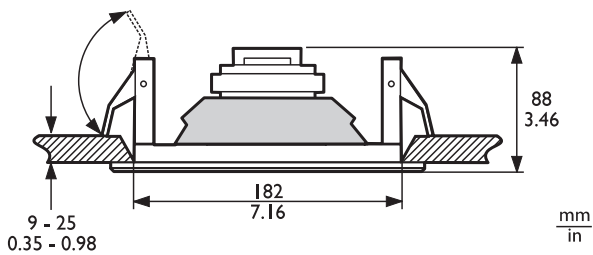
For Mounting onto the surface of a wall or ceiling, the color-matched surface mounting box LBC 3091/01 is available.

LBC 3080/00 Fire Dome

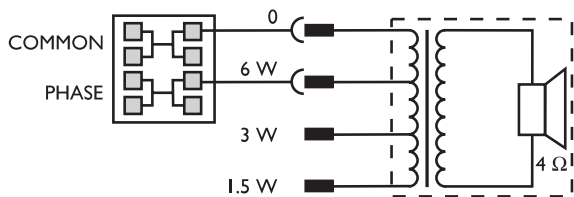
During a fire, the ceiling cavity can allow fire or smoke to spread throughout a building. To inhibit fire entering the cavity via the ceiling loudspeaker, it can be fitted with an LBC 3080/01 steel fire dome. This is mounted on the loudspeaker assembly using four self-tapping screws supplied with the fire dome. The fire-dome has knock-out holes for two grommets (supplied) and two cable glands (PG 13).



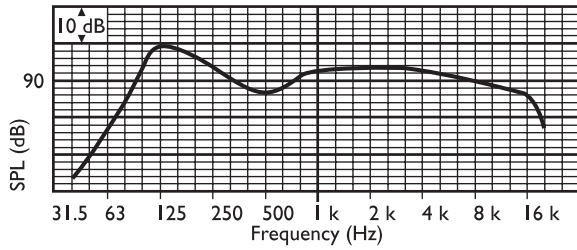
Dimensions



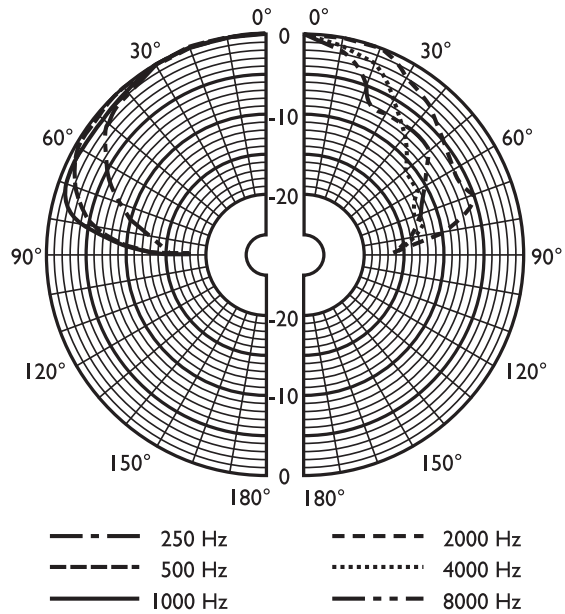
Dimensions



Circuit diagram



Frequency response

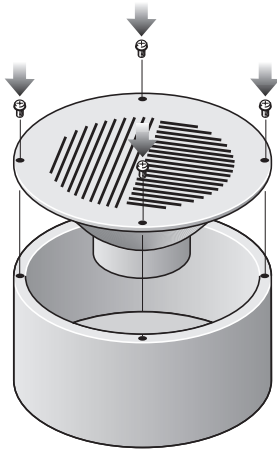


Polar diagram (measured with pink noise)

Octave band (Hz)	125	250	500	1k	2k	4k	8k
SPL 1.1	94	91	89	91	93	95	89
SPL max.	102	99	97	99	101	103	97
Q-factor	4.8	5	3	3.4	6.3	18	20
Efficiency	0.66	0.32	0.34	0.46	0.4	0.22	0.05
Hor. angle	150	140	180	160	140	55	45
Vert. angle	150	140	180	160	140	55	45

Quick reference table

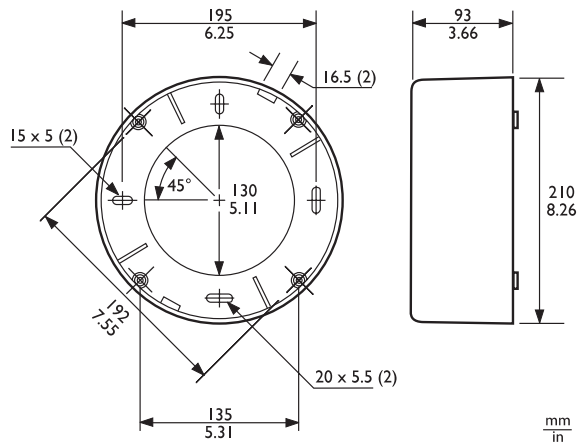
LBC 3091/01 Surface Mounting Box



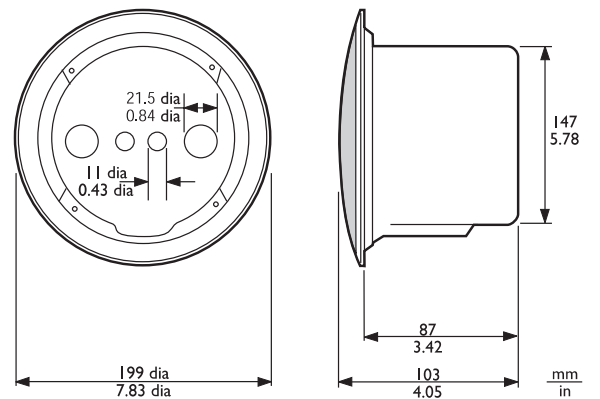
LBC 3080/00 Fire Dome



LBC 3090/01 and LBC 3091/01 assembly



Dimensions



LBC 3090/01 + LBC 3080/01 fire dome assembly dimensions

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Technical Specifications

Electrical*

Max. Power	9 W
Rated Power	6 W (6 - 3 - 1.5 W)
Sound Pressure Level at Rated Power 6 W/1 W (at 1 kHz, 1 m)	99 dB / 91 dB (SPL)
Effective Frequency Range (-10 dB)	70 Hz to 18 kHz
Opening Angle (at 1 kHz/4 kHz, -6 dB)	160° / 55°
Rated Voltage	100 V
Rated Impedance	1667 ohm

Mechanical

Speaker Size	152.4 mm (6 inch)
Magnet Weight	5.3 oz
Connection	2-pole push connector
Dimensions (dia x max. depth)	210 x 88 mm (8.3 x 3.5 inch)
Mounting Cut-Out Dia.	182+5 (7.2 inch)
Color	White (RAL 9010)
Weight	1.1 kg (2.4 lb)

Environmental

Ambient Temperature	-25°C to +55°C (-13°F to 131°F)
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*) Technical performance data acc. to IEC 60268-5

LBC 3091/01

Dimensions (dia x max. depth)	210 x 93 mm (8.3 x 3.6 in)
Color	White (RAL 9010)
Weight	290 g (0.6 lb)

LBC 3080/01

Dimensions (dia x max. depth)	147 x 87 mm (5.8 x 3.4 in)
Certified B15	acc. to DIN 4102
Color	White (RAL 9010)
Weight	360 g (0.8 lb)

Ordering Information

Model & Description

LBC 3090/01 Ceiling Loudspeaker
LBC 3091/01 Surface Mounting Box
LBC 1256/00 EVAC Connection Adapter
3-pole screw connector
LBC 3080/01 Fire Dome

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