



LBC 3086/41 Ceiling Loudspeaker



- ▶ Suitable for speech and music reproduction
- ▶ Flush-mounting in ceiling cavity
- ▶ Easy to install
- ▶ Simple power setting
- ▶ Optional certified fire dome
- ▶ Unobtrusive in virtually all interiors
- ▶ Complies with international installation and safety regulations
- ▶ BS 5839-8 compliant

Voice alarm loudspeakers are specifically designed for use in buildings where performance of systems for verbal evacuation announcements is governed by regulations. The LBC 3086/41 is designed for use in voice alarm systems and is compliant with British standard BS 5839-8.

Functions

The loudspeaker unit is a 6 W, dual-cone loudspeaker with an integrated circular metal grille. A 100 V matching transformer is mounted on the back. The appearance and neutral white RAL color have been selected to be unobtrusive in virtually all interiors.

The loudspeaker has built-in protection to ensure 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 ceramic terminal blocks, thermal fuse and heat-resistant, high-temperature wiring. It can also be fitted with an optional fire-dome to increase protection of the cable termination.

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.

Safety	acc. to EN 60065
EVAC	acc. to BS 5839-8

Installation/Configuration Notes

Installation

The assembly is quickly installed into a hole in the ceiling cavity. A separate mounting ring, secured by three integral spring-loaded ceiling locking clamps (for ceilings and wall boards from 9 to 25 mm thick) holds it in place. The clamps are provided with protective rubbers to avoid damaging soft ceiling material. A circular template for marking a 196 mm (7.7 in) diameter hole is included with the loudspeaker. The loudspeaker unit is held in the mounting ring with a bayonet fitting.

Terminal Block

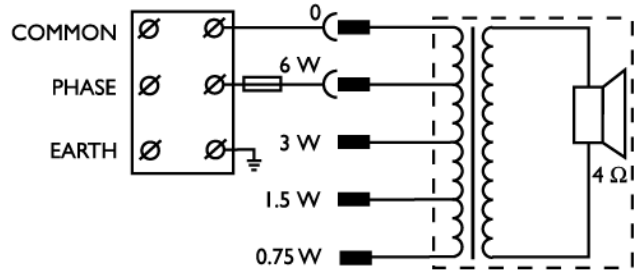
The unit has a three-way terminal block with screw connections suitable for loop-through wiring. Four primary taps are provided on the matching transformer to allow selection of nominal full-power, half-power, quarter-power or eighth power radiation (i.e. in 3 dB steps).

LBC 3081/02 Fire Dome Assembly

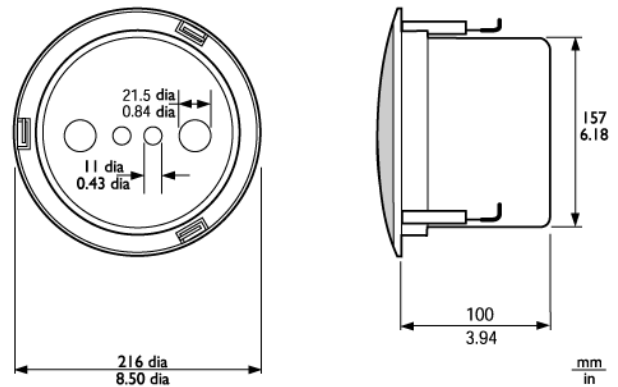
During a fire, the ceiling cavity in which loudspeakers are installed can allow flames to spread throughout a building. To prevent fire entering the caving via the loudspeaker, the ceiling loudspeaker can be fitted with a protective steel fire dome (LBC 3081/02).



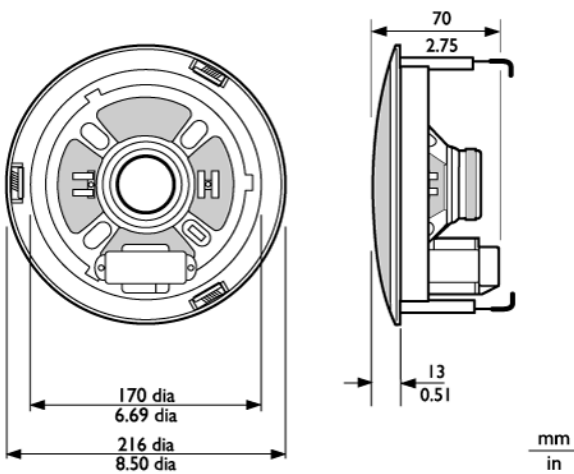
LBC 3086/41 with LBC 3081/02 fire dome assembly



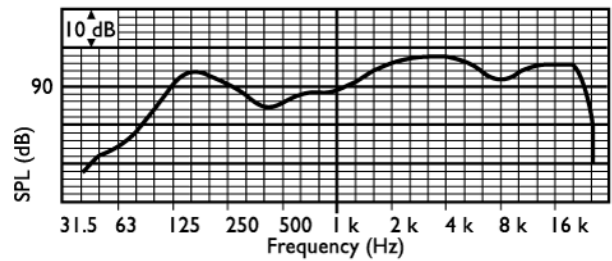
Circuit diagram



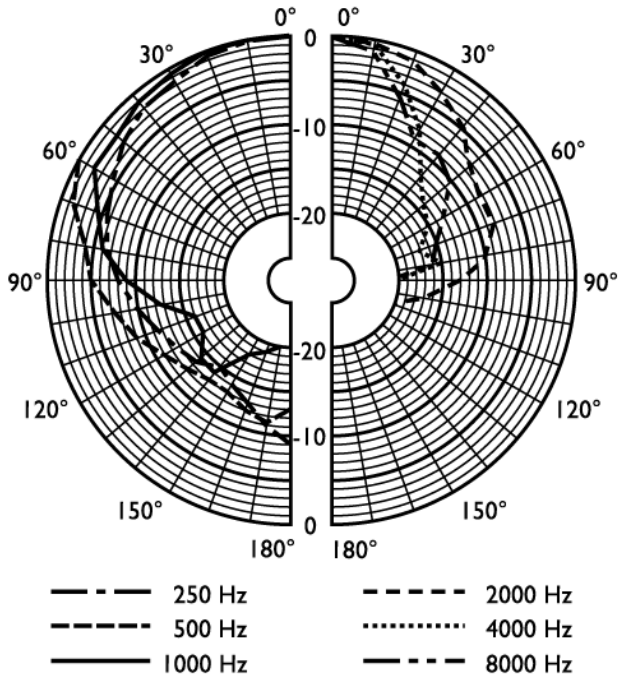
LBC 3086/41 with LBC 3081/02 fire dome assembly dimensions in mm (in)



Dimensions in mm (in)



Frequency response



Polar diagram (measured with pink noise)

	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
SPL 1.1	92	90	85	90	96	98	92
SPL max.	100	98	93	98	104	106	100
Q-factor	4.8	4.4	2.5	3.7	8.3	20	21
Efficiency	0.42	0.29	0.16	0.34	0.6	0.4	0.1
H. angle	160	160	180	160	90	50	40
V. angle	160	160	180	160	90	50	40

Acoustical performance specified per octave

Parts Included

Quantity	Components
1	LBC 3086/41 Ceiling Loudspeaker
1	196 mm circular template

Technical Specifications

Electrical*

Maximum power	9 W
Rated power	6 / 3 / 1.5 / 0.75 W
Sound pressure level at 6 W / 1 W (1 kHz, 1 m)	98 dB / 90 dB (SPL)
Effective frequency range (-10 dB)	90 Hz to 20 kHz
Opening angle at 1 kHz/4 kHz (-6 dB)	180° / 50°
Rated voltage	100 V
Rated impedance	1667 ohm
Connector	3-pole push-in terminal block

* Technical performance data acc. to IEC 60268-5

Mechanical

Diameter	216 mm (8.5 in)
Maximum depth	70 mm (2.8 in)
Mounting cut-out	196 mm (7.7 in)
Weight	1.3 kg (2.86 lb)
Color	off-white (RAL 9010)
Magnet weight	150 g (5.3 oz)

Environmental

Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LBC 3086/41 Ceiling Loudspeaker	LBC 3086/41
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Accessories

LBC 3081/02 Fire Dome metal fire dome for LBC 3086/41 ceiling loudspeaker	LBC3081/02
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Europe, Middle East, Africa:
 Bosch Security Systems B.V.
 P.O. Box 80002
 5600 JB Eindhoven, The Netherlands
 Phone: +31 40 2577 284
 Fax: +31 40 2577 330
 emea.securitysystems@bosch.com
 www.boschsecurity.com

Americas:
 Bosch Security Systems, Inc.
 130 Perinton Parkway
 Fairport, New York, 14450, USA
 Phone: +1 800 289 0096
 Fax: +1 585 223 9180
 security.sales@us.bosch.com
 www.boschsecurity.us

Asia-Pacific:
 Bosch Security Systems Pte Ltd
 38C Jalan Pemimpin
 Singapore 577180
 Phone: +65 6319 3450
 Fax: +65 6319 3499
 apr.securitysystems@bosch.com
 www.boschsecurity.com

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