

LBC3951/12 Ceiling loudspeaker, 6 W, 4"

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Invented for life



- ▶ Compact yet powerful
- ▶ Very wide opening angle
- ▶ Modern unobtrusive styling
- ▶ Installation friendly
- ▶ Splash-waterproof

The LBC3951/12 is a compact, 6 W loudspeaker with a perforated metal grille. It has excellent audio performance and is easy to install with its integral mounting clips. The loudspeaker is IPx4 water protected from the front so it can be installed in humid environments.

Functions

The LBC3951/12 has a perforated metal grille with a plastic surround, finished in an attractive off-white RAL color. The unobtrusive styling of this loudspeaker complements today's interior lighting.

The loudspeaker features a very wide opening angle, which means fewer units are required to cover a given area. The wide frequency range means better speech and music reproduction. The unit is supplied with a 100 V matching transformer with taps on the primary winding for full-power, half-power, quarter-power and eighth-power radiation.

The loudspeaker (with special treated paper cone) is IPx4 water protected from the front and can be applied in humid environments, for example in bathrooms, saunas, atriums and swimming pool areas.

Certifications and approvals

All plastic parts are manufactured from self-extinguishing high-impact ABS material (according to UL 94V0).

Quality assurance

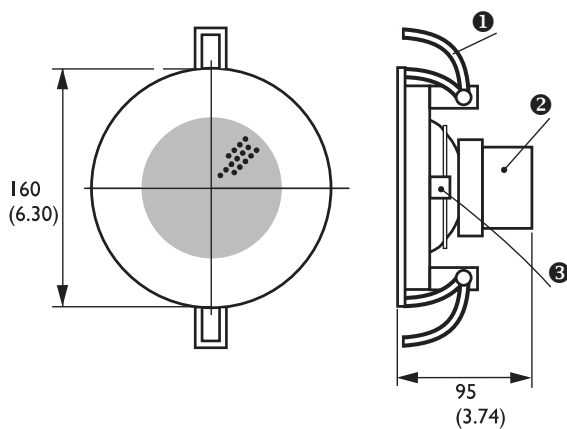
All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 60268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that they can withstand two times their 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
Water protection	acc. to EN 60529, IPx4

Region	Regulatory compliance/quality marks	
Europe	CE	DECL EC LBC3951_12

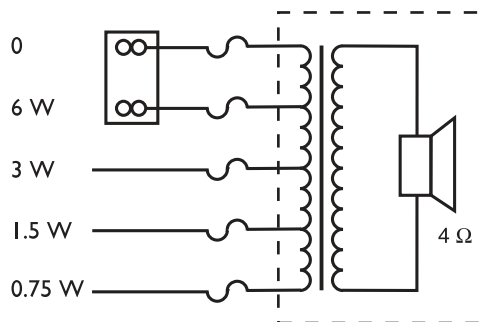
Installation/configuration notes

Installation is easy with integral clips that securely hold the ceiling loudspeaker in its cut-out. Ceilings from 9 to 25 mm thick can be accommodated. A template is also provided for accurately marking the cutout in ceiling panels. Wiring is via a connection block with push-type terminals, making installation possible without using any special tools. The transformer is delivered wired for 6 W rated output power, but can easily be changed for other connections using the color-coded wires and terminal block.

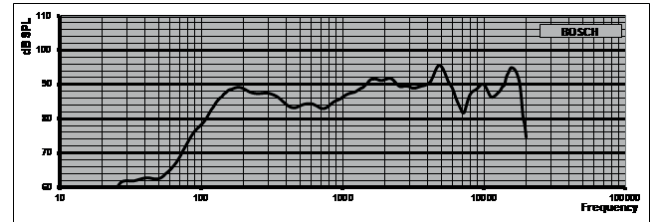


01	Clamp
02	Matching transformer
03	Terminal block

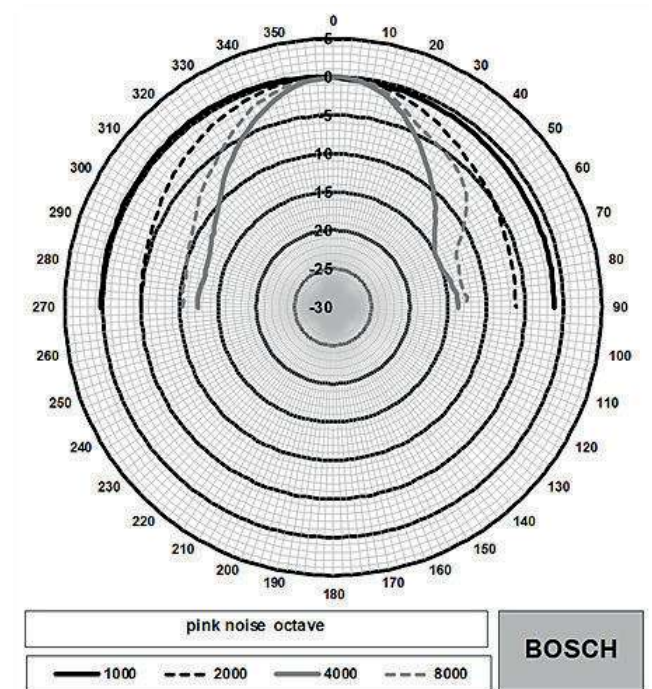
Dimensions in mm (inch)



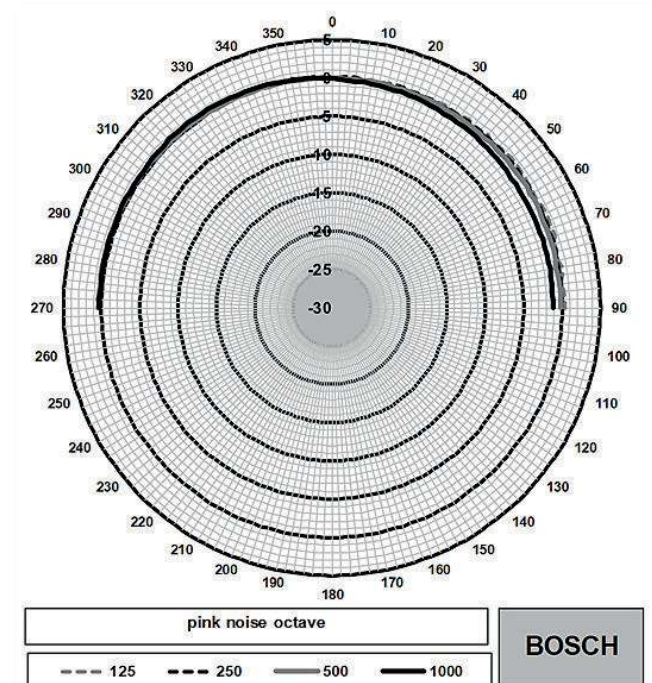
Circuit diagram



Frequency response



Polar diagram (high frequency part)



Polar diagram (low frequency part)

Octave band sensitivity*

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	84.9	-	-
250 Hz	88.5	-	-
500 Hz	84.8	-	-
1000 Hz	87.0	-	-
2000 Hz	91.0	-	-
4000 Hz	92.2	-	-
8000 Hz	88.4	-	-
A-weighted	-	87.2	94.3
Lin-weighted	-	88.2	95.4

Octave band opening angles

	Horizontal	Vertical	
125 Hz	180	180	
250 Hz	180	180	
500 Hz	180	180	
1000 Hz	180	180	
2000 Hz	180	180	
4000 Hz	65	65	
8000 Hz	69	69	

Acoustical performance specified per octave. (all measurements are done with a pink noise signal; the values are in dB SPL).*

Parts included

Quantity	Component
1	LBC3951/12 Ceiling loudspeaker
1	145-mm circular template

Technical specifications**Electrical***

Rated power	6 / 3 / 1.5 / 0.75 W
Sound pressure level at 6 W / 1 W (1 kHz, 1 m)	95 dB / 87 dB (SPL)

Sound pressure level at 6 W / 1 W (4 kHz, 1 m)	98 dB / 90 dB (SPL)
Effective frequency range (-10 dB)	90 Hz to 18 kHz
Opening angle at 1 kHz/4 kHz (-6 dB)	180° / 65°
Rated voltage	100 V
Rated impedance	1667 ohm
Connector	2-pole push-in terminal block

* Technical performance data acc. to IEC 60268-5

Mechanical

Diameter	160 mm (6.30 inch)
Maximum depth	95 mm (3.74 inch)
Ceiling thickness	9 to 25 mm (0.35 to 0.98 inch)
Mounting cut-out	145 mm (5.71 inch)
Speaker diameter	101.6 mm (4 in)
Weight	640 g (1.41 lb)
Color	White (RAL 9010)
Magnet weight	101 g (3.57 oz)

Environmental

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

Ordering information**LBC3951/12 Ceiling loudspeaker, 6 W, 4"**

Ceiling loudspeaker 6 W, circular metal grille with an ABS surround, integral clips for easy mounting, push terminal block, white RAL 9010.

Order number **LBC3951/12**

Accessories**LBC1256/00 Ceramic connection adapter**

Emergency connection adapter, 3-pole screw ceramic connector with a pre-mounted thermal fuse, to be installed in series with the 100 V primary connection of a loudspeaker unit, set of 100 pieces.

Order number **LBC1256/00**

Represented by:

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: + 31 40 2577 284
emea.securitysystems@bosch.com
emea.boschsecurity.com

Germany:
Bosch Sicherheitssysteme GmbH
Robert-Bosch-Ring 5
85630 Grasbrunn
Germany
www.boschsecurity.com

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

Asia-Pacific:
Robert Bosch (SEA) Pte Ltd, Security Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia