

# LC5-WC06E4 Ceiling Loudspeaker 6 W

www.boschsecurity.com



**BOSCH**  
Invented for life



- ▶ Suitable for speech and music reproduction
- ▶ Extreme compact size
- ▶ Suitable for use in humidity-, chlorine- and salty environments
- ▶ Selectable 70 V ,100 V and 8 Ohm input
- ▶ EN 54-24 certified

The LC5-WC06E4 is an extreme compact ceiling loudspeaker, suitable for speech and background music reproduction. The design of the front grille perfectly matches with current available recessed luminaires, integrating light and sound.

The optional back-box LC5-CBB fully protects the rear of the loudspeaker from dust and dripping water from above, making the combination IP 44 protected. The loudspeaker frame, grille and back-box are manufactured from self-extinguishing ABS according to UL 94 V 0.

This ceiling loudspeaker is suitable for use in low ceiling applications with low noise level. The small driver used in the unit stands for delivering good sound quality from a small sized unit and provides a wide opening angle for the important frequency octaves. Fewer loudspeakers are needed to cover a given area, and the noticeable “fading” that occur as a listener walks from one loudspeaker to another area is eliminated.

The loudspeaker (with assembled back-box) is suitable for use in humidity-, chlorine- and salty environments.

## Certifications and approvals

### Quality assurance

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 improved reliability under extreme conditions, leading to higher customer satisfaction, longer operating life, and lessens the chance of failure or performance deterioration.

Safety	According to EN 60065
Water and dust protected*	According to EN 60529 IP 44
Emergency*	According to EN 54-24 Compliant to BS 5839 part 8
Salt mist*	According to IEC 60068-2-11
Chlorine resistant*	According to IEC 60068-2-60

\* With LC5-CBB back-box.

Region	Certification
Europe	CE
Poland	CNBOP

**Installation/configuration notes**

Installation is easy with two integral leaf springs that securely hold the loudspeaker in its cut-out. The integral leaf springs can be adjusted in three positions to accommodate ceiling thicknesses from 5 mm to 25 mm. The size of the ceiling cut-out opening is standardized on available 3" (76.2 mm) cutting hole saws.

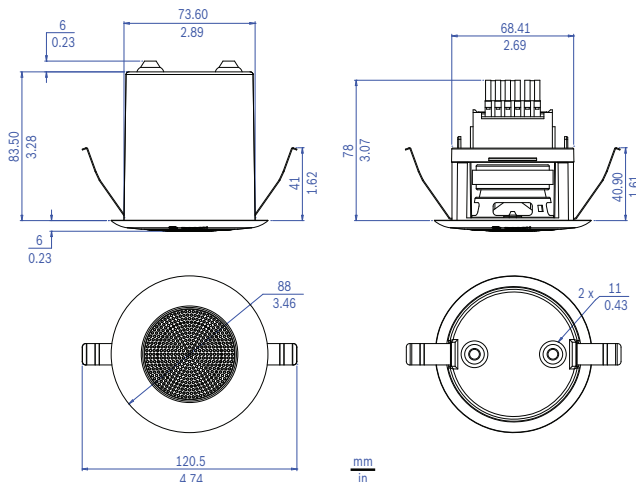
No tool required for fitting the loudspeaker into the ceiling cut-out.

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.

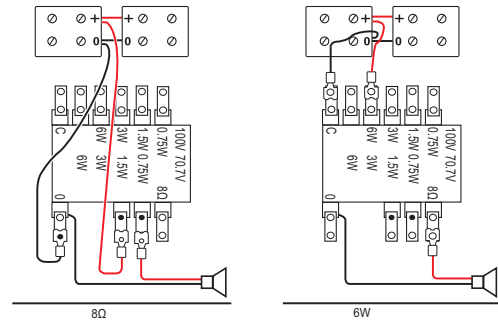
The loudspeaker has ceramic screw-terminal connection blocks, thermal fuse and heat-resistant high temperature wiring.

Connections are made using two 2-way screw terminal blocks at the rear of the loudspeaker, where each incoming and outgoing conductor of the same potential can be connected to a separate terminal. Power tapping on both 70 V and 100 V allows selection of full-power, half-power, quarter-power and eight-power radiation, and 8 Ohm.

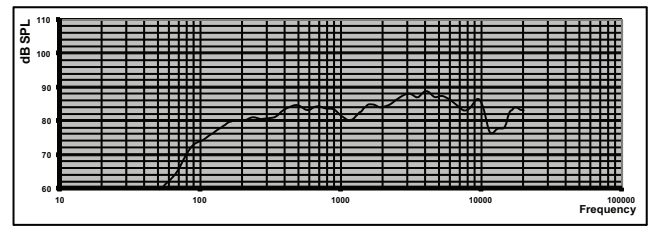
The optional back-box (LC5-CBB) protects the rear of the loudspeaker from water and dust, falling objects, makes the unit vermin proof and prevents sound traveling via the ceiling cavity to adjacent areas. The back-box is assembled with the loudspeaker by means of a snap-in construction and has on top two knock-out holes for two rubber cable grommets (11 mm/0.43"), standard supplied.



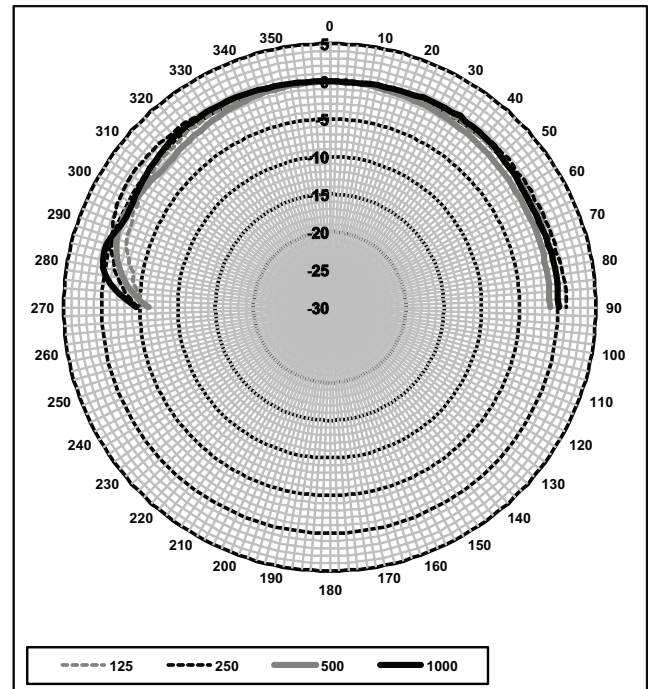
Dimensions LC5-WC06E4 and LC5-CBB



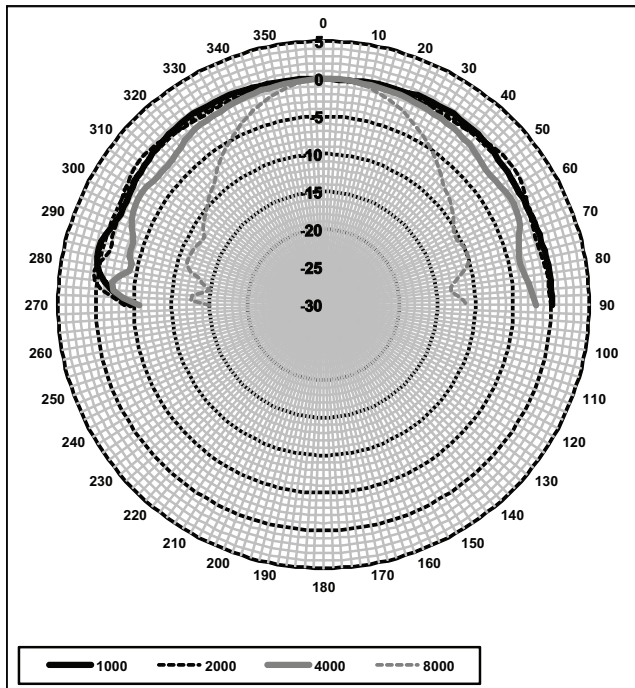
Circuit diagrams 8 Ohm and 6 W connection



Frequency response



Horizontal/vertical polar diagram (low frequency). Normalized at 0-degrees axis.



Horizontal/vertical polar diagram (high frequency).  
Normalized at 0-degrees axis.

Octave band sensitivity \*

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	77.3	-	-
250 Hz	80.8	-	-
500 Hz	83.6	-	-
1000 Hz	82.1	-	-
2000 Hz	84.8	-	-
4000 Hz	87.3	-	-
8000 Hz	84.4	-	-
A-weighted	-	82.0	88.6
Lin-weighted	-	82.5	89.4

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	180	180	
8000 Hz	72	72	

Acoustical performance specified per octave

\* (all measurements are done with a pink noise signal; the values are in dB SPL)

Parts included

Quant ity	Component
1	LC5-WC06E Ceiling Loudspeaker
1	Installation Instruction
1	Ceiling cut-out template

Technical specifications

	LC5-WC06E4		
Description	Ceiling Loudspeaker		
Maximum power	9 W		
Rated power	6 W (6/3/1.5/0.75W)		
Sound pressure level at 6 W power / 1 W (1 kHz, 1 m)	90 dB / 82 dB (SPL)		
Sound pressure level at 6 W power / 1 W (1 kHz, 4 m)	76 dB / 68 dB (SPL)		
Opening angle at 1 kHz / 4kHz (-6 dB)	180° / 180°		
Effective frequency range (-10 dB)	85 Hz to 20 kHz		
Rated voltage	6.93 V	70 V	100 V
Rated impedance	6 W	8 Ohm	833 Ohm
	3 W	N.A.	1666 Ohm
	1.5 W	N.A.	3333 Ohm
	0.75 W	N.A.	6666 Ohm
Electrical connection	2x two-way screw terminal block		
Acceptable wire gauge	0.5 – 2 mm		

\*Technical performance according to IEC 60268-5

	LC5-WC06E4
Description	Ceiling Loudspeaker
Diameter	88 mm (3.46 in)
Mounting cut-out	76 mm (2.99 in)
Min./Max. ceiling thickness	5 to 25 mm (0.19 to 0.98 in)
Maximum depth	78 mm (3.07 in)
Material	ABS (V 0)
Weight	395 g (0.87lb)
Color	White (RAL 9003)
	LC5-CBB
Description	Back-Box
Diameter	75 mm (2.95 in)
Maximum depth	83.5 mm (3.29 in)
Material	ABS (V 0)
Weight	41 g (0.09 lb)
Color	White (RAL 9003)
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%

**Note:**

- The specification data is measured in an anechoic chamber, on a standard baffle
- The reference axis is perpendicular to the center point of the front grille
- The reference plane is perpendicular to the center of the reference axis
- The horizontal plane is perpendicular to the center of the reference plane

 1438
Bosch Security Systems BV Torenallee 49, 5617 BA Eindhoven, the Netherlands 14 1438-CPR-0372
EN 54-24:2008 Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings Ceiling loudspeaker LC5-WC06E4 with enclosure LC5-CBB Type B DoP: LP022927

CE label

**Ordering information****Ceiling Loudspeaker 6 W**

Ceiling loudspeaker 6 W, circular, ABS grille, compact design, ceiling mounted by two leaf springs, white RAL 9003.

Order number **LC5-WC06E4**

**Accessories****Back Box**

Back box for mounting onto the LC5 loudspeaker, protects the rear of the loudspeaker from dust and dripping water, makes the unit vermin proof, and prevents sound traveling via the ceiling cavity to adjacent areas, white RAL 9003.

Order number **LC5-CBB**

**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