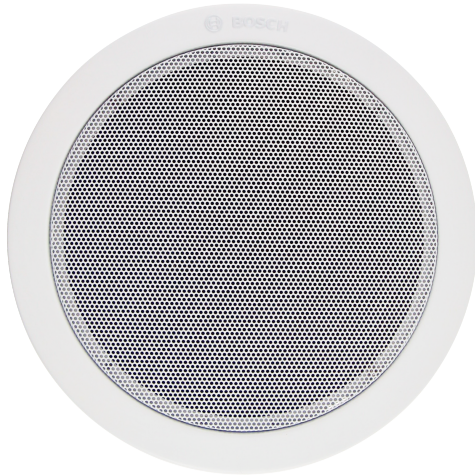


LC3-UM06E Ceiling loudspeaker 6W metal



The LC3-UM06E is a general purpose, cost effective 6 W dual cone ceiling loudspeaker for speech and background music reproduction. Suitable for 100 V connection with power tapping for adjusting the sound level to meet the needs of the respective area. A circular metal grille is an integrated part of the front. The appearance and neutral white color have been selected to be unobtrusive in virtually all interiors. To inhibit fire from entering the cavity through the ceiling loudspeaker, the LC3-UM06E it is foreseen with a metal fire dome.

Functions

Voice Alarm applications

Voice alarm loudspeakers are specifically designed for use in buildings where system performance for verbal evacuation announcements is governed by regulations. The LC3-UM06E Loudspeaker is designed for use in voice alarm systems and is EN 54-24 certified and compliant with British standard BS 5839-8.

Protection

The loudspeakers have built-in protection to ensure that fire damage to the loudspeakers does not cause failure of the connected circuit. In this way system integrity is maintained, ensuring loudspeakers in other areas can still be used to inform people of the situation.

Connections

The loudspeakers have a ceramic screw-terminal connection block, thermal fuse and heat-resistant, high-temperature wiring.

- ▶ Suitable for speech and music reproduction
- ▶ Flush-mounting in ceiling cavity
- ▶ Metal fire dome
- ▶ EN 54-24 certified
- ▶ BS 5839-8 compliant

Regulatory information

All Bosch loudspeakers are designed to withstand operating at their rated power for 100 continuous 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 IEC/EN 62368-1
Emergency	According to EN 54-24 According to BS 5839-8
Water and dust protection	According to IEC/EN 60529, IP21C

Region	Regulatory compliance/quality marks
Europe	DoP CE
Poland	CNBOP

Installation/configuration notes

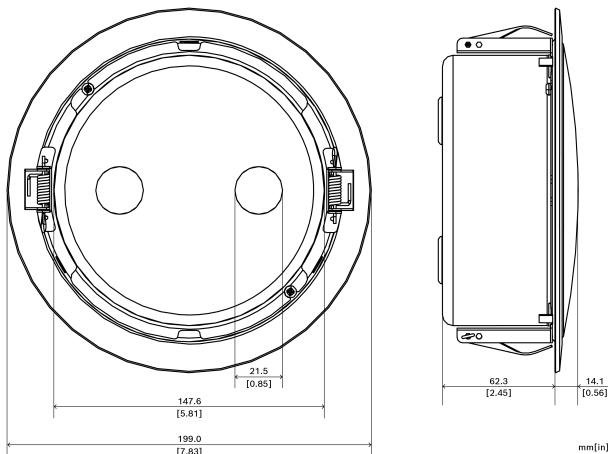


Fig. 1: Dimensions in mm (in)

Mounting

Installation is easy with integral spring arms that securely hold the ceiling loudspeaker in its cut-out. A template is also provided for accurately marking the cut-out in ceiling panels.

Knockout holes

The loudspeaker has two knockout holes either for cable grommets, that are supplied and pre-mounted, or for optional cable glands like PG-13.5.

Terminal block

The loudspeaker has a two-way ceramic terminal block with screw connection and thermal fuse 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 (in 3 dB steps).

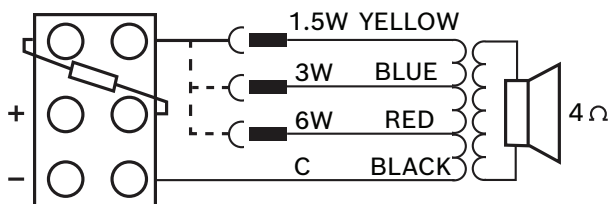


Fig. 2: Circuit diagram

Parts included

Quantity	Component
1	LC3-UM06E Ceiling loudspeaker 6 W metal
1	Quick installation guide

Technical specifications

Electrical*

Maximum power (W)	9 W
Rated power (W)	6 W
Transformer taps 100 V line	6 W; 3 W; 1.5 W
Sensitivity (1 W, 1 m, 1 kHz octave) (dB)	92 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	86 dB
Frequency range (-10 dB) (Hz)	290 Hz – 18,000 Hz
Coverage angle HxV (-6 dB, 500 Hz) (°)	180° x 180°
Coverage angle HxV (-6 dB, 1 kHz) (°)	180° x 180°
Coverage angle HxV (-6 dB, 2 kHz) (°)	160° x 160°
Coverage angle HxV (-6 dB, 4 kHz) (°)	65° x 65°
Rated input voltage (V)	100 V
Rated impedance 100 V line (Ω)	1667 Ω @6 W
	3333 Ω @3 W
	6667 Ω @1.5 W
Connector type	2-pin ceramic

* Technical performance data acc. to IEC 60268-5

Note:

- The specification data was measured in an anechoic chamber, mounted in an IEC-baffle.
- 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.

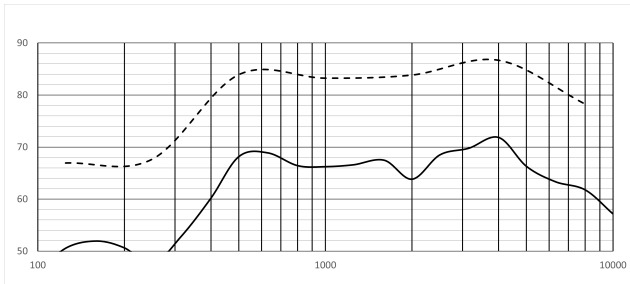


Fig. 3: Frequency response graph (— 1/3rd octave dB SPL @1 W(100 Hz – 10 kHz), 4 m; -- 1/1th octave dB SPL@1 W(100 Hz – 10 kHz), 1 m)

(1/3) rd octave band	dB SPL at 4 m
100	45.7
125	50.6
160	52.0
200	50.6
250	47.5
315	52.8
400	60.2
500	68.2
630	68.9
800	66.4
1000	66.2
1250	66.6
1600	67.5
2000	63.8
2500	68.5
3150	69.8
4000	71.9
5000	66.3
6300	63.4
8000	61.8
10000	57.2

(1/1) th octave band	dB SPL at 1 m
125	66.9
250	67.7
500	83.9
1000	83.2
2000	83.8
4000	86.7
8000	78.3

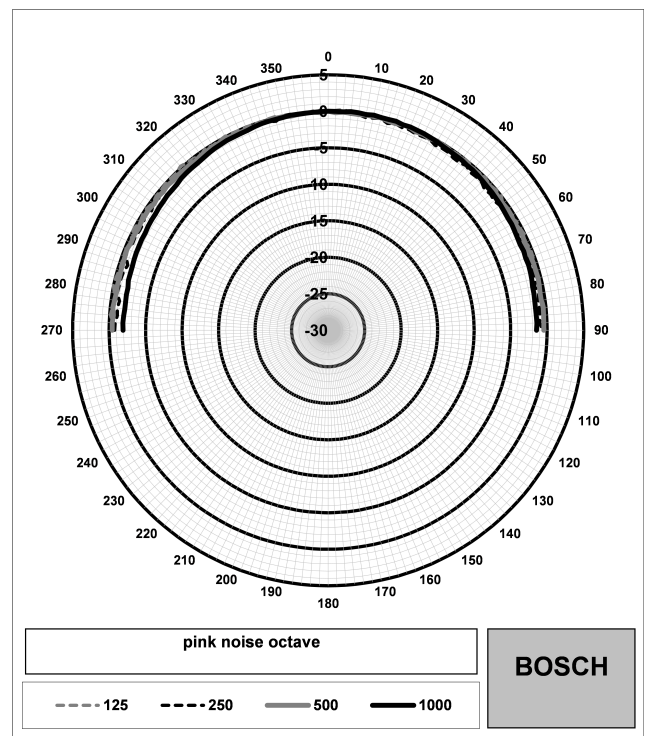


Fig. 4: Polar diagram (low frequency part)

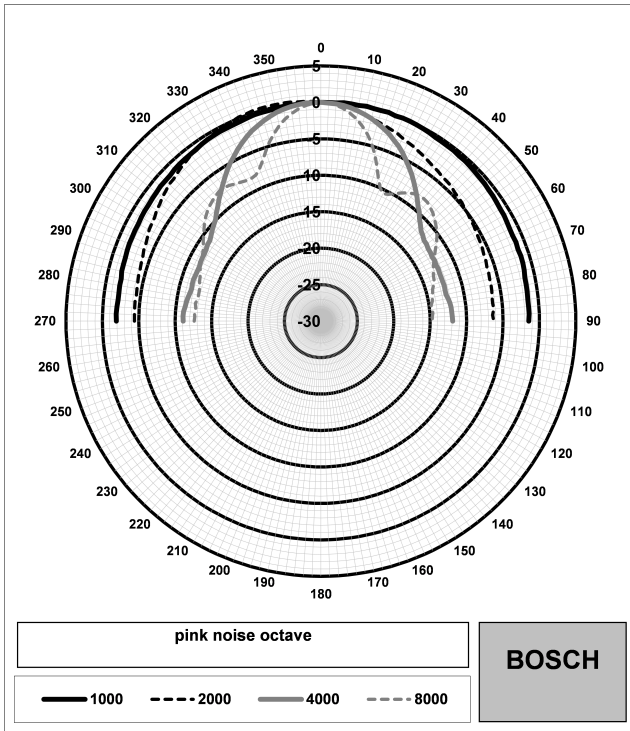


Fig. 5: Polar diagram (high frequency part)

Mechanical

Dimensions (H x W x D) (mm)	199 mm x 199 mm x 75 mm
Dimensions (H x W x D) (in)	7.83 in x 7.83 in x 2.95 in
Weight (kg)	0.97 kg
Weight (lb)	2.14 lb
Color (RAL)	RAL 9003 Signal white
Speaker size (mm)	152.4 mm
Speaker size (in)	6 in.
Magnet weight (g)	113 g
Magnet weight (oz)	4 oz

Environmental

Operating temperature (°C)	-10 °C – 55 °C
Operating temperature (°F)	14 °F – 131 °F

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Storage temperature (°C)	-40 °C – 70 °C
Storage temperature (°F)	-40 °F – 158 °F
Operating relative humidity, non-condensing (%)	0% – 95%



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 1438-CPR-0769

EN 54-24:2008

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

Ceiling loudspeaker 6W metal
 LC3-UM06E
 Type A
 DoP: LP022930

Ordering information

LC3-UM06E Ceiling loudspeaker 6W metal

EN 54-24 certified, RAL 9003 white.
 Can only be ordered in multiples of two packed in one box.
 Order number **LC3-UM06E | F.01U.377.177**