

LP1-UC20E-1 Sound projector, 20W, uni-directional

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- ▶ Superb speech and music reproduction
- ▶ Integrated connection cable
- ▶ Ceiling or wall mounting
- ▶ Water and dust protected to IP 65
- ▶ EN 54-24 certified

The LP1-UC20E-1 is a powerful 20 W sound projector intended for high quality speech and music reproduction in indoor and outdoor applications. The state-of-the-art design is matched to both modern and traditional style environments. The sound projector is suitable for use in voice alarm systems.

Functions

Superb sound quality

The use of a high-quality driver has resulted in a very natural sound reproduction with excellent bass response.

Voice alarm loudspeaker

Voice alarm loudspeakers are specifically designed for use in buildings where performance of systems for verbal communication announcements is governed by regulations. The LP1-UC20E-1 is designed for use in voice alarm systems, is EN 54-24 certified and compliant with BS 5839-8 and EN 60849. The sound projector is pre-wired for use with an optional line/loudspeaker supervision board external mounted. The loudspeaker has built-in protection to secure 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 a ceramic terminal block, thermal fuse and heat resistant, high-temperature wiring.

The sound projector is made from high-impact self-extinguishing ABS according to class UL 94 V 0, finished in white.

Certifications and approvals

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 aspects

In common with all Bosch products, care is taken to meet high safety standards.

All ABS parts are self-extinguishing (according to UL 94 V 0). This sound projector complies with the relevant safety and installation regulations of EN 60065.

Water and dust protection	according to IEC 60529, IP 65 IP44C as verified for EN54-24 by CNBOP
Emergency	according to EN 54-24 / BS 5839-8 / EN 60849

Region	Regulatory compliance/quality marks	
Global	DOC	Declaration of Compliance IEC 60068-2-60 (Mixed gas corrosion test)
Europe	CE	DOP
	CE	DOC (IP)
	CE	DECL EC LP1-UC20E-1
	CPD	
	CNBOP	

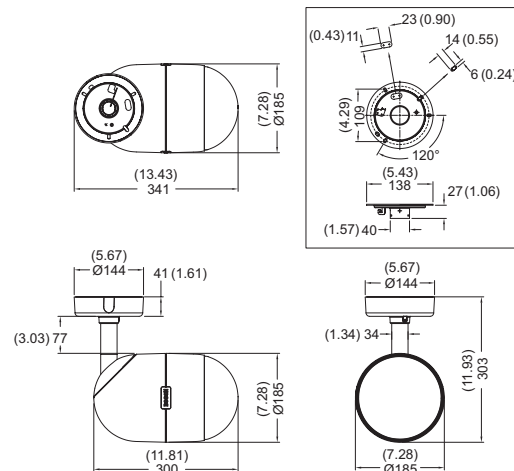
Installation/configuration notes

Mounting

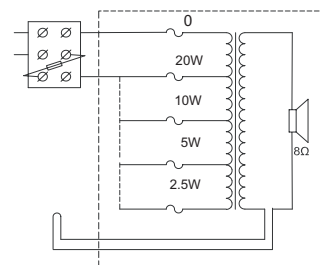
Ease of installation is realized in the way of mounting: first the mounting plate is fixed to the wall or ceiling, secondly a safety cord is attached to the mounting plate, allowing the installer temporarily hang the loudspeaker during installation. After making the connections, the sound projector can be fixed to the mounting plate, by means of a fixing screw nut, and the horizontal direction can be fixed. A cover plate covers screws and wiring. The versatile mounting bracket allows the sound projector to be horizontal and vertical directed. The vertical direction can be permanent fixed with a recessed socket head screw via a small hole located in the rear panel. The cover plate is provided with two cable – or 16 mm (0.63 inch) conduit entries (covered as standard supplied) in opposite position, suitable for loop-through cabling.

Power setting

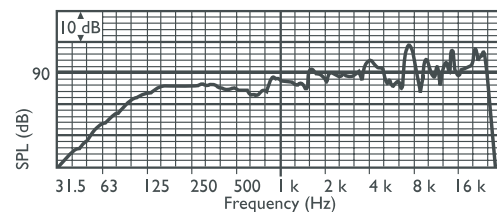
A ceramic terminal for electrical connection is provided. The loudspeaker is standard connected to full power. Half-power, quarter-power or eighth-power can be selected by connecting the appropriate color-coded wire to the terminal block.



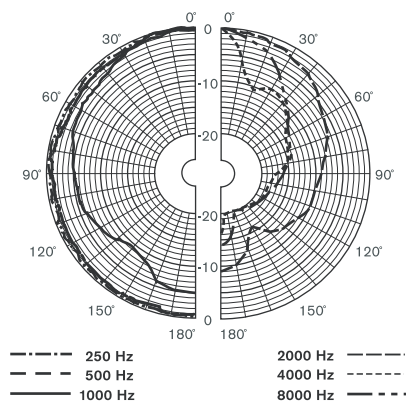
Dimensions in mm / (in)



Circuit diagram



Frequency response



Polar diagram (measured with pink noise)

Octave band sensitivity*

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	84.5	-	-
250 Hz	85.5	-	-
500 Hz	84.7	-	-
1000 Hz	87.2	-	-
2000 Hz	90.2	-	-
4000 Hz	92.1	-	-
8000 Hz	95.9	-	-
A-weighted	-	89.4	101.0
Lin-weighted	-	91.3	102.3

Octave band opening angles

	Horizontal	Vertical	
125 Hz	360	360	
250 Hz	360	360	
500 Hz	360	360	
1000 Hz	220	220	
2000 Hz	124	124	
4000 Hz	65	65	
8000 Hz	34	34	

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

Parts included

Quantity	Component
1	LP1-UC20E-1 Sound Projector

Technical specifications

Electrical*

Rated power	20 / 10 / 5 / 2.5 W
Sound pressure level at 20 W / 1 W (1kHz, 1 m)	100 dB / 87 dB (SPL)
Sound pressure level at 20 W / 1 W (1kHz, 4 m)	91 dB / 78 dB (SPL)
Opening angle at 1 kHz / 4 kHz (-6 dB)	220° / 65°
Effective frequency range (-10 dB)	75 Hz to 20 kHz

Rated voltage		100 V
Rated impedance	20 W	500 Ohm
	10 W	1000 Ohm
	5 W	2000 Ohm
	2.5 W	4000 Ohm
Connector	3-pole screw terminal	

* Technical performance data accordance to IEC 60268-5

Mechanical


Dimensions (D x L)	185 x 300 mm (7.3 x 11.8 in.)
Weight	3 kg (6.6 lb)
Color	White (RAL 9010)
Material	ABS

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%

Note:

- The specification data is measured in an anechoic chamber, free field
- 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 12 1438-CPR-0258
EN 54-24:2008 Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings Unidirectional Sound Projector 20 W LP1-UC20E-1 Type B DoP: LP052916

CE-label

Ordering information

LP1-UC20E-1 Sound projector, 20W, uni-directional
Sound projector 20 W, unidirectional, white ABS enclosure with metal grille, water and dust protected IP65, EN54-24 certified, white RAL 9010.
Order number **LP1-UC20E-1**

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