

LP1-UC20E-1 Unidirectional Sound Projector

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Invented for life



- ▶ 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 in combination with advanced filtering 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
Emergency	according to EN 54-24 / BS 5839-8 / EN 60849

Region	Certification
Europe	CE
	CE DOP
	CPD
Poland	CNBOP

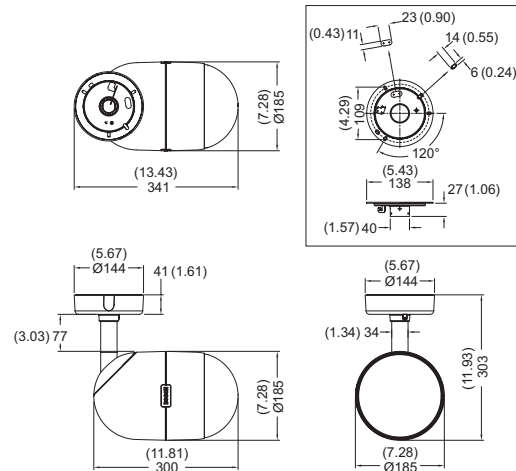
Installation/configuration notes

Mounting

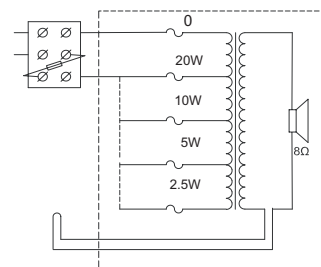
Ease of installation is realized in the way of mounting: first the mounting plate is fixed to the wall or ceiling, secondly a safety cord is attached to the mounting plate, allowing the installer temporarily hang the loudspeaker during installation. After making the connections, the sound projector can 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

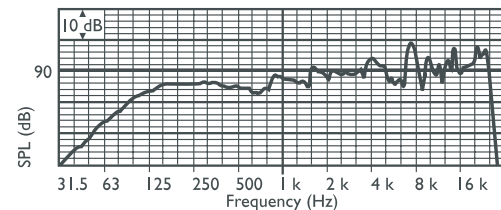
A ceramic terminal for electrical connection is provided. The loudspeaker is standard connected to full power. Half-power, quarter-power or eighth-power can be selected by connecting the appropriate color-coded wire to the terminal block.



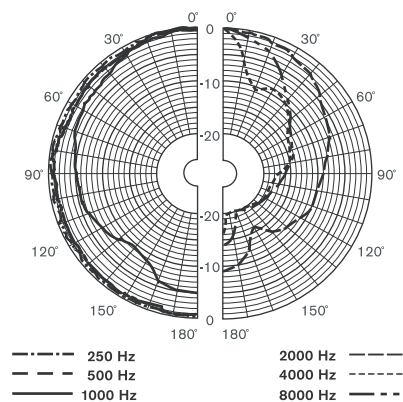
Dimensions in mm / (in)



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	226	226
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).

Technical specifications

Electrical*

Maximum power	30 W
Rated power	20 / 10 / 5 / 2.5 W
Sound pressure level at 20 W / 1 W (1kHz, 1 m)	100 dB / 87 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	500 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 temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

 1438
Bosch Security Systems BV Torenallee 49, 5617BA Eindhoven, The Netherlands 10 1438-CPD-0258
EN 54-24:2008 Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings Unidirectional Sound Projector 20W LP1-UC20E-1 Type B

Ordering information

LP1-UC20E-1 Unidirectional Sound Projector

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

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