

# LP1-BC10E-1 Sound projector, 10W, bi-directional

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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-BC10E-1 is a powerful 10 W bidirectional sound projector intended for high quality speech and music reproduction in indoor and outdoor applications. The two loudspeakers facing in opposite directions are ideally suited to applications such as tunnels, long corridors and shopping arcades. 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 high-quality drivers has resulted in a very natural sound reproduction.

### 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-BC10E-1 is designed for use in voice alarm systems. The sound projector is pre-wired for use with an optional line/loudspeaker supervision board externally 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

### Quality assurance

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 lessons the chance of failure or performance deterioration.

**Safety aspects**

In common with all Bosch products, care is taken to meet high safety standards. This sound projector complies with the relevant safety and installation regulations of EN 60065. All ABS parts are self-extinguishing (according to UL 94 V 0)

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
	CE DOC (IP)
	CPD
Poland	CNBOP

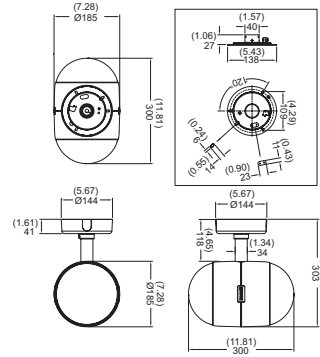
**Installation/configuration notes**

**Mounting**

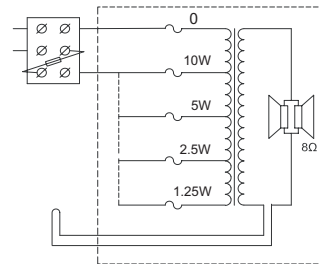
Ease of installation is realized in the way of mounting: first the mounting plate is fixed to the wall or ceiling, secondly a safety cord is attached to the mounting plate, allowing the installer temporarily hang the loudspeaker during installation. After making the connections, the sound projector can 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 electrical wiring. The versatile mounting bracket allows the sound projector to be horizontal directed. 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**

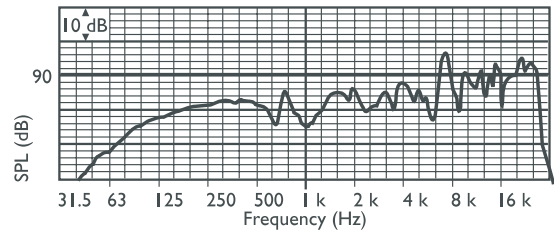
A ceramic terminal for electrical connection is provided. The loudspeaker is standard connected to full power. Half-power, quarter-power or eighth-power can be selected by connecting the appropriate color coded wire to the terminal block.



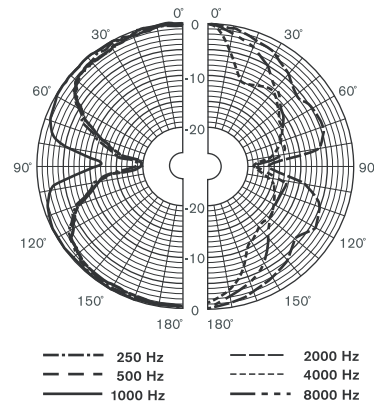
Dimensions in mm / (in)



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	75.4	-	-

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250 Hz	80.3	-	-
500 Hz	81.3	-	-
1000 Hz	80.5	-	-
2000 Hz	83.5	-	-
4000 Hz	85.4	-	-
8000 Hz	89.2	-	-
A-weighted	-	83.0	92.4
Lin-weighted	-	85.3	93.5

#### Octave band opening angles

	Horizontal	Vertical	
125 Hz	120	120	
250 Hz	120	120	
500 Hz	132	132	
1000 Hz	162	162	
2000 Hz	153	153	
4000 Hz	62	62	
8000 Hz	35	35	

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-BC10E-1 Sound Projector

#### Technical specifications

##### Electrical\*

Maximum power	15 W	
Rated power	10 / 5 / 2.5 / 1.25 W	
Sound pressure level at 10 W / 1 W (1 kHz, 1 m)	90 dB / 80 dB (SPL)	
Sound pressure level at 10 W / 1 W (1 kHz, 4 m)	85 dB / 76 dB (SPL)	
Opening angle at 1 kHz / 4 kHz (-6 dB)	165° / 60°	
Effective frequency range (-10 dB)	75 Hz to 20 kHz	
Rated voltage		100 V
Rated impedance	10 W	1000 Ohm
	5 W	2000 Ohm

2.5 W	4000 Ohm
1.25 W	8000 Ohm

Connector	3-pole screw terminal
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\* Technical performance data according to IEC 60268-5

##### Mechanical


Dimensions (D x L)	185 x 297 mm (7.3 x 11.7 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 Bidirectional Sound Projector 10 W LP1- BC10E-1 Type B DoP: LP052916

CE-label

#### Ordering information

##### Sound projector, 10W, bi-directional

Sound projector 10 W, bidirectional, white ABS enclosure with metal grilles, water and dust protected IP65, EN54-24 certified, white RAL 9010. Order number **LP1-BC10E-1**

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