

LH1-UC30E Music Horn Loudspeaker

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BOSCH
Invented for life



- ▶ Excellent speech and music reproduction
- ▶ Two-way system
- ▶ Attractive ABS housing
- ▶ Provisions for internal mounting of the optional line / loudspeaker supervision board
- ▶ EN 54-24 certified

The Bosch LH1-UC30E Music Horn Loudspeaker features a two-way system, resulting in an extended frequency range and high sensitivity which makes it ideal for high quality speech and music reproduction.

Functions

The rectangular horn features a unique combination of a re-entrant horn with two transducers, one for low- and the other for high frequencies, resulting in breathtaking sound clarity.

The horn is weather protected and can be used in areas with high humidity. It is therefore suitable for outdoor applications such as sport grounds, sports stadiums, leisure parks, exhibition areas and passenger terminals, as well as for indoor public address.

The ABS horn loudspeaker and aluminum bracket are finished in light grey (RAL 7035).

The LH1-UC30E is designed for use in voice alarm systems and is EN 54-24 certified and compliant with BS 5839-8 and EN 60849.

The horn 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 horn loudspeaker has ceramic terminal blocks, thermal fuse and heat resistant high temperature wiring. It has provision for internal mounting of the optional line / loudspeaker supervision boards.

Certifications and approvals

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 extra reliability under extreme conditions, leading to higher customer satisfaction, longer operating life, and much less chance of failure or performance deterioration.

Safety	acc. to EN 60065
Emergency	acc. to EN 54-24 / BS 5839-8 / EN 60849
Self-extinguishing ABS	acc. to UL 94 V 0
Water and dust protection	acc. to IEC 60529, IP 66
Wind-force	Bft 11

Region	Certification
Europe	CE
	CE DOP
	CPD

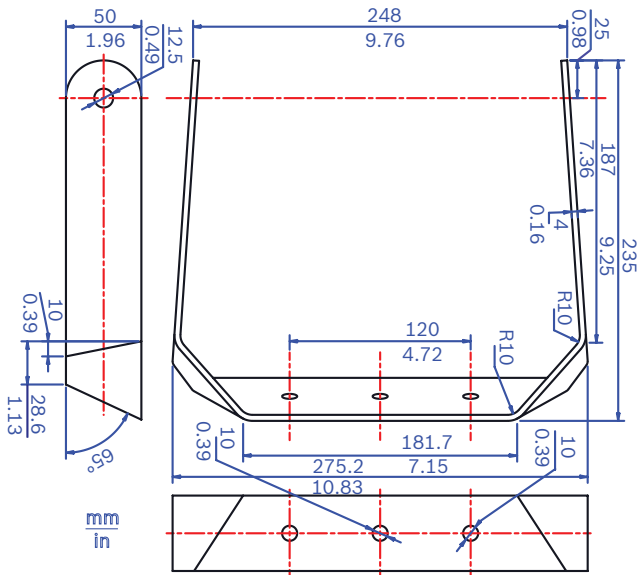
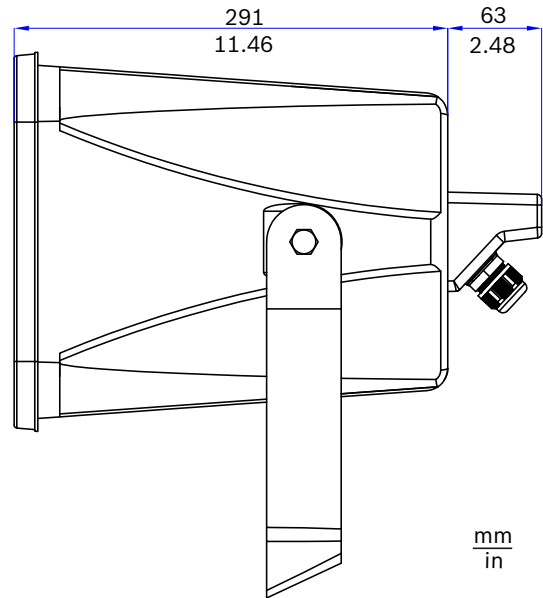
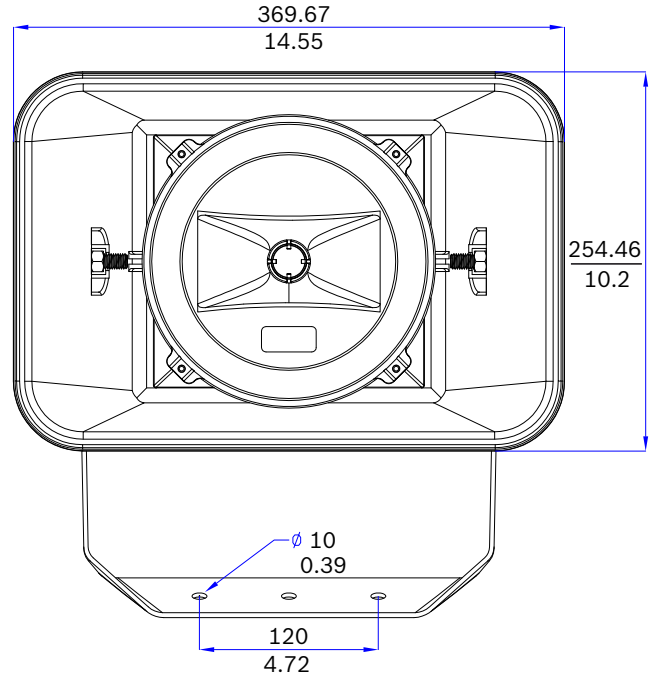
Installation/configuration notes

The horn loudspeaker includes a transformer for both 70 V and 100 V with taps on the primary winding for different power settings.

Nominal full-power, half-power, quarter-power or eight-power radiation (i.e. in 3 dB steps) can easily be selected by connecting to the appropriate tap.

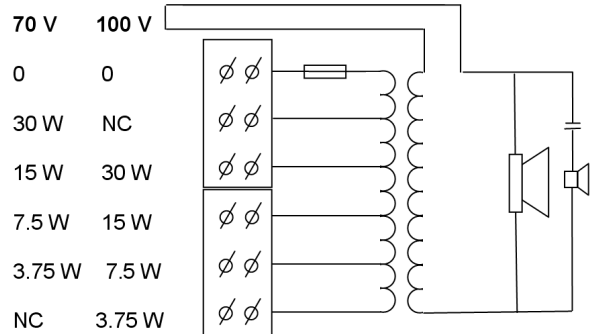
The connection cable is fed out through an ABS cable gland (PG13.5) in the rear cover. For loop through connection, the rear cover is fitted with a second hole (covered as standard supplied)

In the rear cover, an provision for inside mounting of the optional line/ loudspeaker supervision board is available.

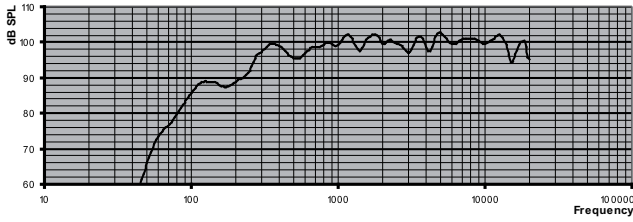


Bracket dimensions

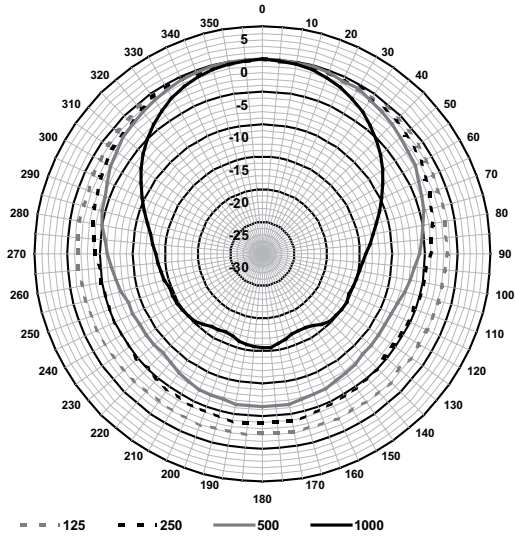
Dimensions



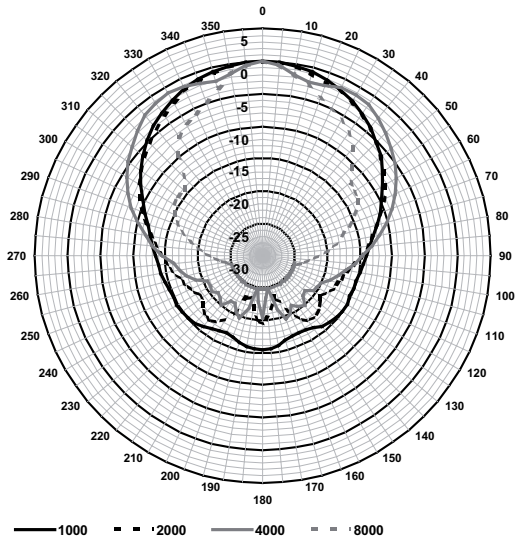
Circuit diagram



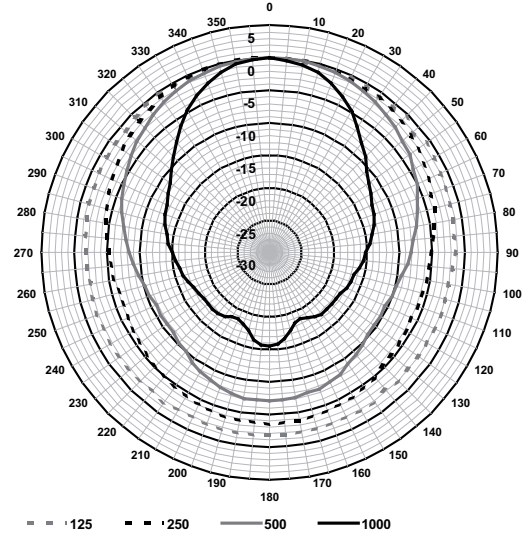
Frequency response



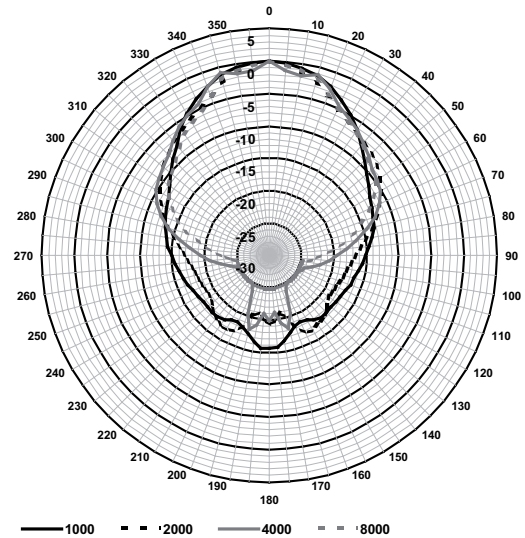
Vertical polar diagram (pink noise octave, normalized at 0° axis)



Vertical polar diagram (pink noise octave, normalized at 0° axis)



Horizontal polar diagram (pink noise octave, normalized at 0° axis)



Horizontal polar diagram (pink noise octave, normalized at 0° axis)

Octave band sensitivity *

	Octave SPL 1W/1m	Total octave SPL 1W/1m	Total octave SPL Pmax/1m
125 Hz	87.8	-	-
250 Hz	95.5	-	-
500 Hz	97.6	-	-
1000 Hz	100.1	-	-
2000 Hz	100.4	-	-
4000 Hz	100.4	-	-
8000 Hz	100.2	-	-

A-weighted	-	97.1	110.6
Lin-weighted	-	97.8	111.7

Octave band opening angles

	Horizontal	Vertical	
125 Hz	360	360	
250 Hz	360	360	
500 Hz	141	180	
1000 Hz	68	100	
2000 Hz	60	110	
4000 Hz	68	120	
8000 Hz	54	55	

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

Parts included

Quantity	Component
1	LH1-UC30E Music Horn loudspeaker
1	PG 13.5 cable gland (fitted)

Technical specifications

Electrical*

Maximum power	45 W
Rated power (PHC)	30 W
Power tapping	30 / 15 / 7.5 / 3.75 W
Sound pressure level at rated power / 1 W (1 kHz, 1 m)	115 / 100 dB (SPL)
Sound pressure level at rated power / 1 W (1 kHz, 4 m)	100 / 86 dB (SPL)
Effective frequency range (-10 dB)	212 Hz to 20 kHz

Opening angle at 1 kHz / 4 kHz (-6 dB)

Horizontal	68° / 68°		
Vertical	100° / 120°		
Rated input voltage		70 V	100 V
Rated impedance	30 W	167 Ohm	333 Ohm
	15 W	333 Ohm	667 Ohm
	7.5 W	667 Ohm	1334 Ohm

	3.75 W	1334 Ohm	2668 Ohm
Connector	6-pole screw terminal		

* Technical performance data acc. to IEC 60268-5

Mechanical

Dimensions (H x W x D)	255 x 370 x 354 mm (10.04 x 14.56 x 13.93 in)
Weight	5.5 kg (12.45 lb)
Color	Light grey (RAL 7035)
Material (horn / bracket)	ABS / Aluminum
Cable diameter	6 mm to 12 mm (0.24 in to 0.47 in)

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

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Bosch Security Systems BV Torenallee 49, 5617 BA Eindhoven, the Netherlands 12 1438/CPD/0252
EN 54-24:2008 Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings Music Horn Loudspeaker 30 W LH1-UC30E Type B DoP: LP062922

Ordering information

LH1-UC30E Music Horn Loudspeaker

Music horn loudspeaker 30 W, ABS material, two-way system for high-quality speech and music reproduction, water and dust protected IP66, EN54-24 certified, light gray RAL 7035.

Order number **LH1-UC30E**

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