BOSCH
Invented for life

LH1-UC30E Music Horn Loudspeaker



- **Excellent speech and music reproduction**
- **Two-way system**
- **Wide opening angle**
- **Attractive ABS housing**
- **Provisions for internal mounting of the optional line / loudspeaker supervision board**
- **EN 54-24 compliant**

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 compliant with EVAC standards.

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
EVAC compliant	acc. to BS 5839-8 / EN 60849
Self-extinguishing ABS	acc. to UL 94 V 0
Water and dust protection	acc. to IEC 60529, IP 65
Wind-force	acc. to NEN 6702 + A1, Bft 11

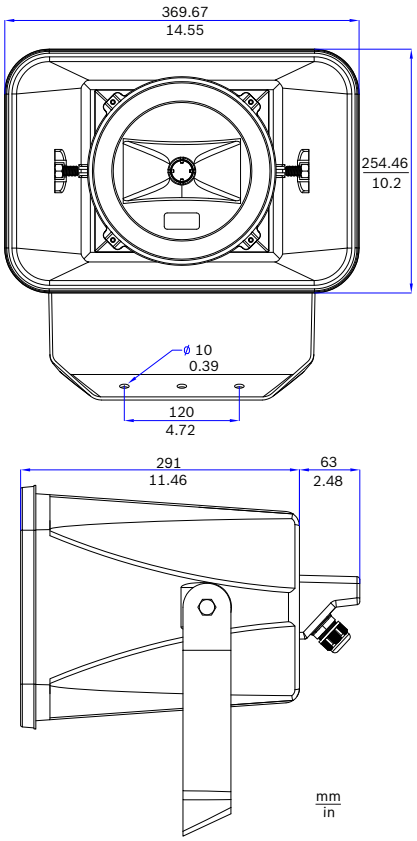
Installation/Configuration Notes

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

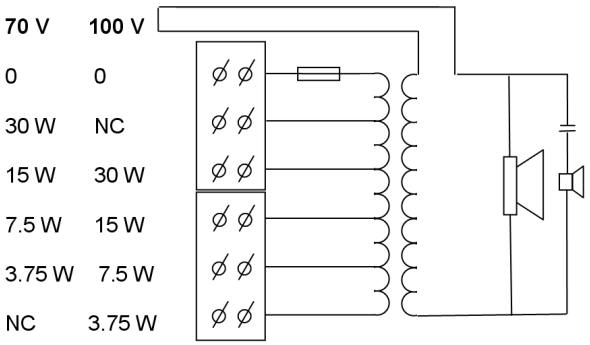
Nominal full-power, half-power, quarter-power or eight-power radiation (i.e. in 3 dB steps) can easily be selected by connecting to the appropriate tap.

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)

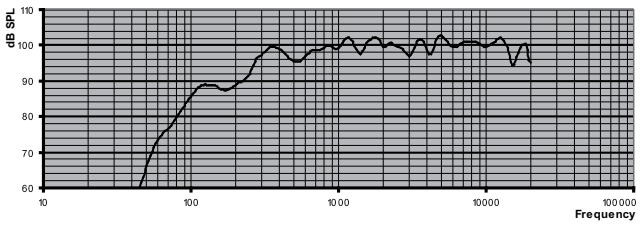
In the rear cover, an provision for inside mounting of the optional line/ loudspeaker supervision board is available.



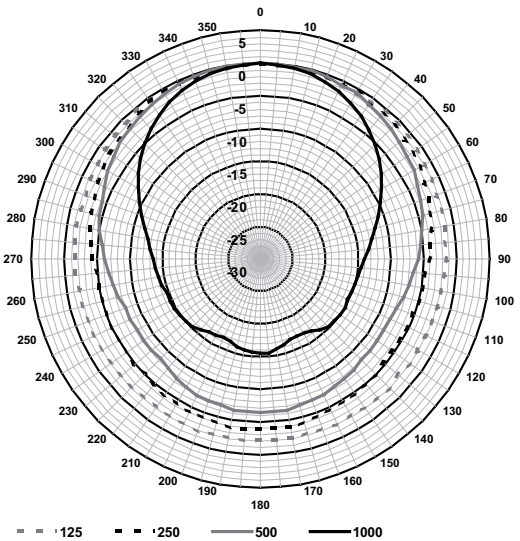
Dimensions



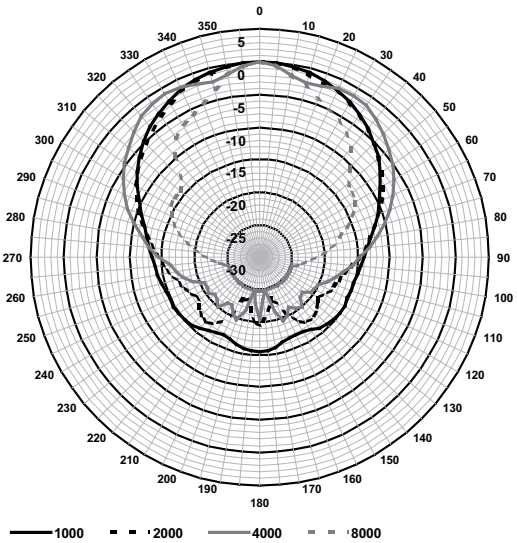
Circuit diagram



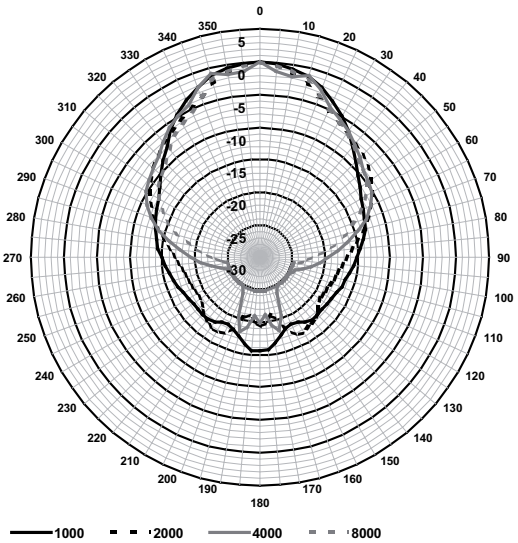
Frequency response



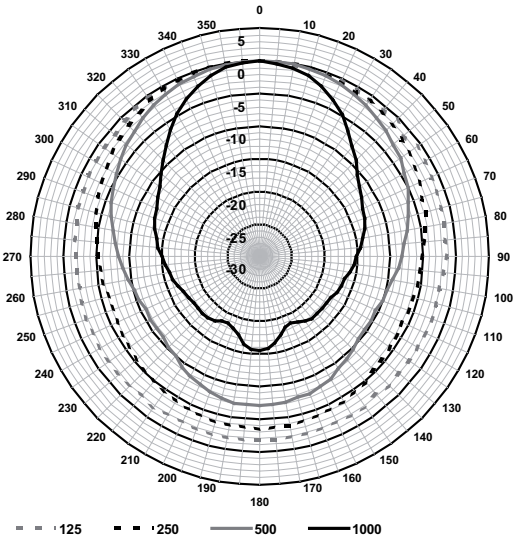
Vertical polar diagram (pink noise octave, normalized at 0º axis)



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



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



Horizontal polar diagram (pink noise octave, normalized at 0º 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	98
2000 Hz	60	96
4000 Hz	68	18
8000 Hz	54	55

Acoustical performance specified per octave

* (all measurements are done with a pink noise signal; the values are in dBSPL).

Parts Included

1	LH1-UC30E
1	PG13.5 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)
Effective frequency range (- 10 dB)	212 Hz to 20 kHz
Opening angle at 1 kHz / 4 kHz (-6 dB)	
Horizontal	68° / 68°
Vertical	98° / 118°
Rated input voltage	70 / 100 V
Rated impedance	167 / 333 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 ºC to +55 ºC (-13 ºF to +131 ºF)
Storage temperature	-40 ºC to +70 ºC (-40 ºF to +158 ºF)
Relative humidity	<95%

Ordering Information

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30 W

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