# LBC 3430/02 Bidirectional Sound Projector

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- ► Excellent speech and music reproduction
- ► Ceiling and/or wall mounting
- ▶ Robust aluminum extrusion enclosure
- ▶ Water and dust protected to IP 55
- ▶ BS 5839-8 and EN 60849 compliant

The LBC 3430/02 is a 12 W bidirectional sound projector intended for speech and music reproduction in indoor and outdoor applications. The two loudspeakers facing in opposite directions are ideally suited to applications such as subway tunnels, long corridors and shopping arcades. The sturdy, aluminum enclosure is finished in the color off-white. The sound projector is suitable for use in voice alarm systems.

#### **Functions**

Voice alarm loudspeakers are specifically designed for use in buildings where performance of systems for verbal communication announcements is governed by regulations. The LBC 3430/02 is designed for use in voice alarm systems and is compliant with British Standard BS 5839-8 and EN 60849.

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 constructed from extruded aluminum and finished in off- white. The front-grills and bracket are made from aluminum to increase corrosion resistance.

# **Certifications and Approvals**

# **Quality assurance**

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 improved reliability under extreme conditions, leading to higher customer satisfaction, longer operating life, and lessons the chance of failure or performance deterioration.

| Safety                    | acc. to EN 60065             |
|---------------------------|------------------------------|
| Emergency                 | acc. to BS 5839-8 / EN 60849 |
| Water and dust protection | acc. to IEC 60529, IP 55     |

| Region | Certification |
|--------|---------------|
| Europe | CE            |

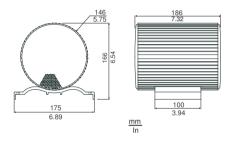
# **Installation/Configuration Notes**

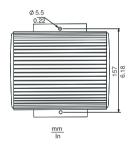
# Mounting

The sound projector mounts to the ceiling or to the wall in such a way, that the connection cable is not visual which is important in areas where vandalism is a potential hazard.

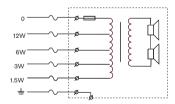
# **Power setting**

A one-meter long fire-resistant six-core connection cable is standard fitted to the loudspeaker. Each core is a different color, and is connected to one of the primary taps on the transformer.

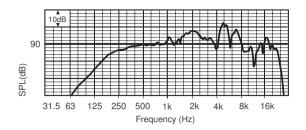




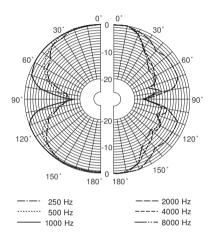
# Dimensions mm / in



Circuit diagram



#### Frequency response



# Polar diagram

# Octave band sensitivity \*

|              | ,                   |                              |                                |
|--------------|---------------------|------------------------------|--------------------------------|
|              | Octave SPL<br>1W/1m | Total octave<br>SPL<br>1W/1m | Total octave<br>SPL<br>Pmax/1m |
| 125 Hz       | 76.8                | -                            | -                              |
| 250 Hz       | 85.0                | -                            | -                              |
| 500 Hz       | 88.9                | -                            | -                              |
| 1000 Hz      | 91.6                | -                            | -                              |
| 2000 Hz      | 95.5                |                              |                                |
| 4000 Hz      | 96.4                | -                            | -                              |
| 8000 Hz      | 92.3                | -                            | -                              |
| A-weighted   | -                   | 91.3                         | 101.3                          |
| Lin-weighted | -                   | 91.4                         | 100.6                          |

#### Octave band opening angles

|        | Horizontal | Vertical |  |
|--------|------------|----------|--|
| 125 Hz | 119        | 119      |  |
| 250 Hz | 129        | 129      |  |
| 500 Hz | 131        | 131      |  |

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| 1000 Hz | 159 | 159 |  |
|---------|-----|-----|--|
| 2000 Hz | 149 | 149 |  |
| 4000 Hz | 55  | 55  |  |
| 8000 Hz | 60  | 60  |  |

Acoustical performance specified per octave

# **Technical Specifications**

#### Electrical\*

| Maximum power                                  | 18 W                     |
|--|--------------------------|
| Rated power                                    | 12/6/3/1.5W              |
| Sound pressure level at 12 W / 1 W (1kHz, 1 m) | 102 dB / 91 dB (SPL)     |
| Opening angle<br>at 1 kHz / 4 kHz (-6 dB)      | 160°/60°                 |
| Effective frequency range (-10 dB)             | 180 Hz to 20 kHz         |
| Rated voltage                                  | 100 V                    |
| Rated impedance                                | 833 ohm                  |
| Connection                                     | 1 m fire-resistant cable |
|  |                          |

<sup>\*</sup> Technical performance data acc. to IEC 60268-5

# Mechanical

| Dimensions (D x L) | 146 x 186 mm (5.7 x 7.3 in) |
|--------------------|-----------------------------|
| Weight             | 3.3 kg (7.3 lb)             |
| Color              | White (RAL 9010)            |
| Material           | Aluminum                    |

#### **Environmental**

| Operating temperature | -25 °C to +55 °C (-13 °F to<br>+131 °F) |
|-----------------------|---|
| Storage temperature   | -40 °C to +70 °C (-40 °F to<br>+158 °F) |
| Relative humidity     | <95%                                    |

# **Ordering Information**

# LBC 3430/02 Bidirectional Sound Projector

12 W, white (RAL 9010) Order number **LBC 3430/02** 

<sup>\* (</sup>all measurements are done with a pink noise signal; the valuals are in dBSPL)

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