

# BS-1034EN

## Wall Mount Speaker 10W EN/ISO



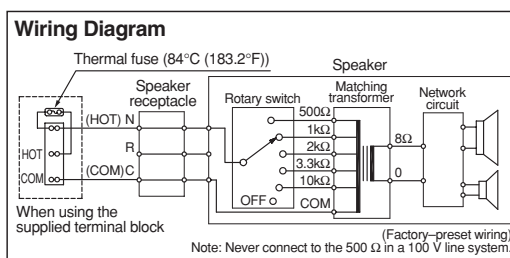
### DESCRIPTION

The BS-1034EN is a 2-way wall mount speaker, matched with a supplied plug-in speaker receptacle, for easy installation. The 10W rated input BS-1034EN combines a low-frequency 12cm (5") cone-type speaker and a high-frequency balanced dome tweeter. An M4 screw terminal input connector allows easy connections. The speakers are driven on a high-impedance (100V or 70V) line, with rated inputs. The BS-1034EN is EN 54-24\*: 2008 and ISO 7240-24: 2010 certified, and is therefore authorized for use in conjunction with fire detection systems. The speaker enclosure's design proportions are based on the Golden Ratio (1: 1.618). A low profile blends in well with room décor. Both vertical and horizontal installations are possible.

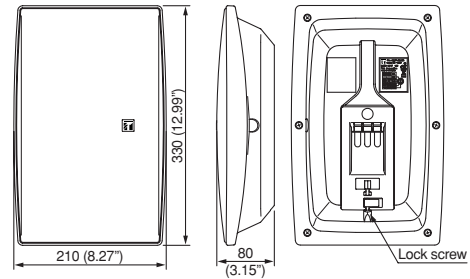
\*EN 54-24: Loudspeaker for voice alarm systems for fire detection and fire alarm systems.

### FEATURES

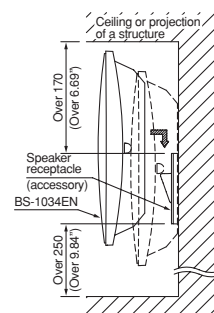
- Innovative speaker design
  - Low profile
  - Attractive design based on the Golden Ratio (1: 1.618)
- Easy and quick installation
- Thanks to the ingenious location of the TOA logo, the speaker creates a distinctly different impression depending on whether it is installed horizontally or vertically
- Certified to EN 54-24: 2008 and ISO 7240-24: 2010 (Certificate No.: 0359-CPD-0102)
- Ideally suited for voice alarm system applications
- Input impedance selector with rotary switch



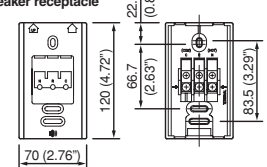
### APPEARANCE AND DIMENSIONAL DIAGRAM



#### Installation view



#### Enlarged view of speaker receptacle



Note: As a force of approx. 18 kg (39.68 lb) is applied to the speaker receptacle at the time of speaker installation, attach it in a location durable enough to withstand the force.

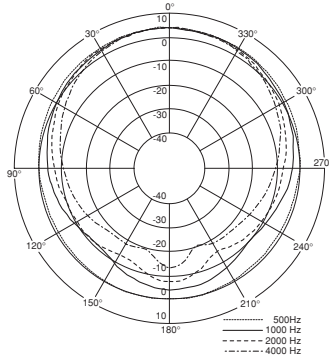
### SPECIFICATIONS

<b>Rated Noise Power:</b>	10 W (100 V line and 70 V line)
<b>Rated Impedance:</b>	100 V line: 1k Ω (10 W), 2k Ω (5 W), 3.3k Ω (3 W), 10k Ω (1 W) 70 V line: 500 Ω (10 W), 1k Ω (5 W), 2k Ω (2.5 W), 3.3k Ω (1.5 W), 10k Ω (0.5 W)
<b>Sensitivity:</b>	89 dB (1 W, 1 m) (500 – 5,000 Hz, pink noise) 86 dB (1 W, 1 m) (100 – 10,000 Hz, pink noise) 74 dB (1 W, 4 m) (100 – 10,000 Hz, pink noise)
<b>Maximum Sound Pressure Level:</b>	94 dB (10 W, 1 m) (100 – 10,000 Hz, pink noise) 82 dB (10 W, 4 m) (100 – 10,000 Hz, pink noise)
<b>Frequency Response:</b>	120 – 20,000 Hz
<b>Coverage Angle:</b>	Horizontal: 360° (500 Hz), 150° (1,000 Hz), 115° (2,000 Hz), 100° (4,000 Hz) Vertical: 300° (500 Hz), 130° (1,000 Hz), 160° (2,000 Hz), 80° (4,000 Hz)
<b>Environmental Type:</b>	A (indoor applications)
<b>Speaker Component:</b>	Low frequency: 12 cm (5") cone-type High frequency: 2.5 cm (1") balanced dome tweeter
<b>Operating Temperature:</b>	-10° C to +50° C (14° F to 122° F)
<b>Speaker Mounting -Method:</b>	Wall-mount
<b>Applicable Cable Size:</b>	Outer diameter: Max. ø 9 mm (for exposed wiring) ø 6.5 – 12.5 mm (for in-wall wiring) Conductor: Solid wire or 7-core wire 0.8 – 2 mm <sup>2</sup> (AWG 18 – AWG 14) for solid wire 0.8 – 1.5 mm <sup>2</sup> (AWG 18 – AWG 15) for 7-core wire
<b>Cable Connection:</b>	Screw terminal, can be bridge-connected
<b>Finish:</b>	Enclosure: HIPS resin (fire resistant grade UL94 V-0), off-white (RAL 9010 or equivalent colour) Grille: Surface-treated steel plate, off-white (RAL 9010 or equivalent colour), paint
<b>Dimensions:</b>	210 (W) × 330 (H) × 80 (D) mm (8.27" × 12.99" × 3.15")
<b>Weight:</b>	1.4 kg (3.09 lb)
<b>Accessory:</b>	Speaker receptacle × 1, Wall mounting screw (tapping screw 4 × 35) × 2, Terminal block (with thermal fuse) × 1

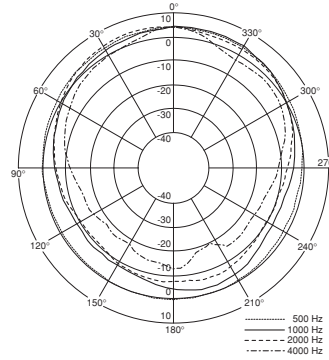


# CHARACTERISTIC DIAGRAMS based on EN 54-24 measurement conditions (Pink noise, 1 W, 4 m)

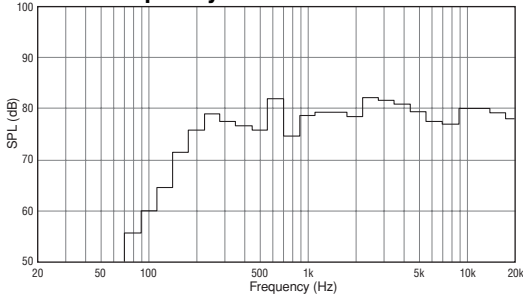
**Polar Response (Horizontal)**



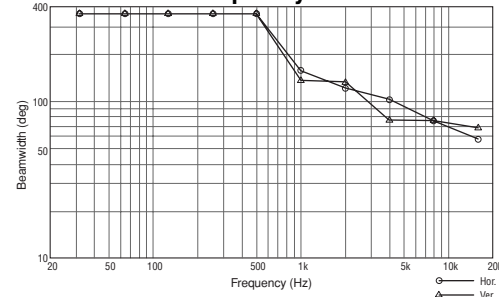
**Polar Response (Vertical)**



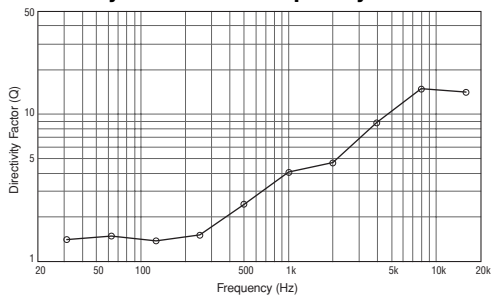
**SPL vs. Frequency**



**Beamwidth vs. Frequency**



**Directivity Factor vs. Frequency**



## ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The speaker shall be a wall-mount speaker design that harmonizes with the venue's architecture and interior decor. The proportion shall be based on the Golden Ratio. The speaker shall be ideal for BGM, announcement and voice evacuation applications due to wide frequency range.

The speaker unit shall combine a 12 cm (5") cone type low frequency speaker with a balanced dome-type tweeter. The unit shall be wall mountable with a supplied plug-in speaker receptacle accessory. The input connector shall be a M4 terminal, with a distance of 11 mm between barriers. A fire-resistant screw terminal block with thermal fuse should be supplied.

Input impedance shall be easily adjustable with rotary switch on the rear side of the speaker.

The speaker shall include a transformer having multiple taps (10 W, 5 W, 3 W, 1 W at 100 V line and 10 W, 5 W, 2.5 W, 1.5 W, 0.5 W at 70 V line) adjustable. The output sound pressure level at a distance of 1 m with a 1 W input level applied shall be 89 dB SPL. The speaker shall have a frequency response of 120 – 20,000 Hz (-20 dB). The speaker shall have an ingress protection for indoor applications: IEC 60529 / EN 60529 drip-proof rating of IP21C.

The speaker enclosure shall be constructed of fire resistant HIPS resin that has fire resistant grade UL94V-0. The grille shall be constructed of surface-treated steel plate net. The speaker shall be available in off-white colour (RAL 9010 or equivalent). The unit shall have dimensions of 210 (W) × 330 (H) × 80 (D) mm (8.27" × 12.99" × 3.15"), and a weight of 1.4 kg (3.09 lb).

The speaker shall be certified according to EN 54-24 with CPD Number 0359-CPD-0102 and certified according to ISO 7240-24.

The speaker shall be a TOA model BS-1034EN.