

BS-678BSB / BS-678BSW

Box speaker BS/EN/ISO



DESCRIPTION

The BS-678BSB/678BSW is a single cone type speaker with a wooden cabinet that has a stylish, compact and unobtrusive design, and that delivers highly cost-effective performance. The speaker can be quickly and easily installed in either a horizontal or a vertical orientation. The 16cm (6") cone speaker unit ensures high-quality sound, making the BS-678BSB/678BSW ideal for BGM and announcement applications. The BS-678BSB/678BSW is EN 54-24*: 2008 and ISO 7240-24: 2010 certified and is therefore authorized for use in conjunction with fire detection systems. It is also in compliance with BS 5839-8: 2008 14.8.

Two steatite screw terminal blocks (1 cable to 1 connection type) allow bridge connection. The selectable input impedance can be easily adjusted by changing the top position of the unit's transformer. Its structure permits direct wall installation with screws, making the speaker unit resistant to falling even if outward force is applied to it.

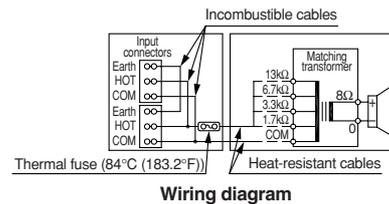
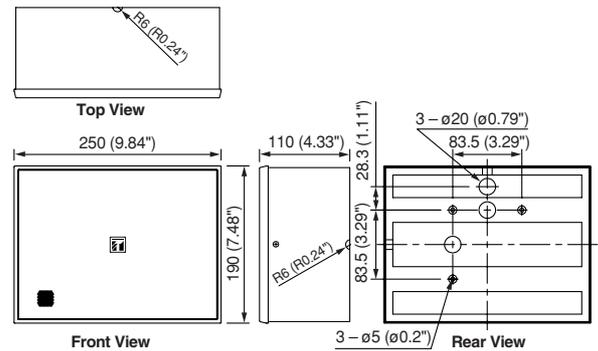
*EN 54-24: Loudspeaker for voice alarm systems for fire detection and fire alarm systems.

FEATURES

- Stylish, compact and unobtrusive design
- Quick and easy installation
- High cost-effectiveness
- Horizontal / vertical installation
- Two steatite screw terminal blocks and thermal fuse
- Certified to EN 54-24: 2008 and ISO 7230-24: 2010 (Certificate No.:0359-CPD-0103)
- In compliance with BS 5839-8: 14.8
- Ideally suited for voice alarm system applications



APPEARANCE AND DIMENSIONAL DIAGRAM

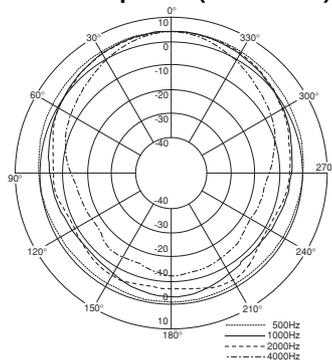


SPECIFICATIONS

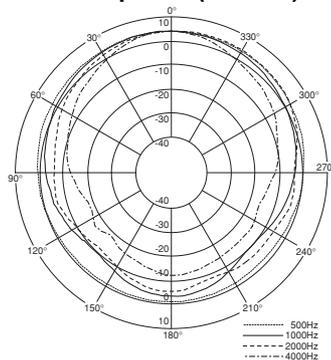
Rated Input:	6W (100V line), 3W (70V line)
Rated Impedance:	100V line: 1.7kΩ (6W), 3.3kΩ (3W), 6.7kΩ (1.5W), 13kΩ (0.8W) 70V line: 1.7kΩ (3W), 3.3kΩ (1.5W), 6.7kΩ (0.8W), 13kΩ (0.4W)
Sensitivity:	94dB (1W, 1m) (500Hz – 5kHz, pink noise) 92dB (1W, 1m) (100Hz – 10kHz, pink noise) 80dB (1W, 4m) (100Hz – 10kHz, pink noise)
Maximum Sound Pressure Level:	98dB (6W, 1m) (100Hz – 10kHz, pink noise) 86dB (6W, 4m) (100Hz – 10kHz, pink noise)
Frequency Response:	150Hz – 18kHz (sensitivity –20dB)
Coverage Angle:	Horizontal: 360° (500Hz), 135° (1kHz), 130° (2kHz), 70° (4kHz) Vertical: 330° (500Hz), 160° (1kHz), 135° (2kHz), 70° (4kHz)
Environmental type:	A (indoor applications)
Speaker Component:	16cm (6") cone-type
Operating Temperature:	-10°C to +50°C (14°F to 122°F)
Speaker Mounting Method:	Wall-mount
Applicable Cable:	Conductor: Solid wire or 7-core wire 0.8 – 7mm ² (AWG 18 – AWG9) for solid wire 0.8 – 4mm ² (AWG 18 – AWG11) for 7-core wire
Connection:	Screw connector (steatite terminal × 2) bridging
Finish:	BS-678BSB: Baffle: HIPS resin, black (RAL 9011 or equivalent colour) Cabinet: Particle board with pvc steel, black (RAL 9011 or equivalent color) Grille: Surface-treated steel plate net, black (RAL 9011 or equivalent color), paint BS-678BSW: Baffle: HIPS resin, white (RAL 9010 or equivalent color) Cabinet: Particle board with pvc steel, white (RAL 9010 or equivalent color) Grille: Surface-treated steel plate net, white (RAL 9010 or equivalent color), paint
Dimensions:	250 (W) × 190 (H) × 110 (D) mm (9.84" × 7.48" × 4.33")
Weight:	1.7kg (3.75 lb)
Accessory:	Speaker mounting screw × 2, Baffle fitting screw × 2

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

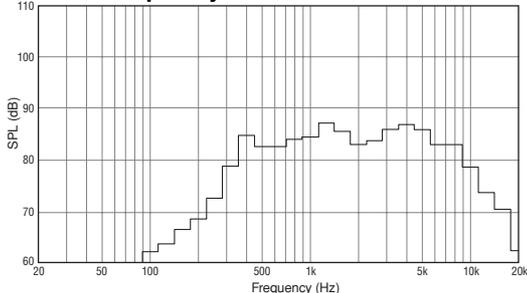
Polar Response (Horizontal)



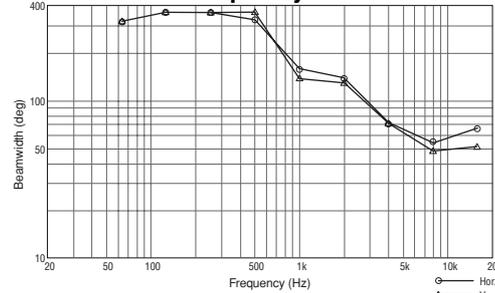
Polar Response (Vertical)



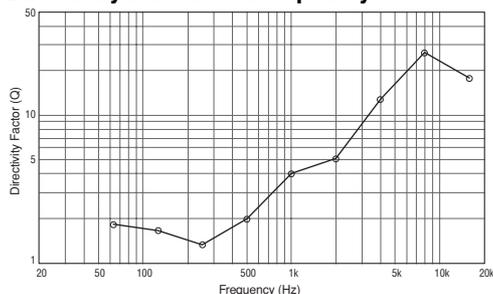
SPL vs. Frequency



Beamwidth vs. Frequency



Directivity Factor vs. Frequency



ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The speaker shall be a 16cm (6") cone-type speaker suitable for wall mounting, thermal fuse with a blowing temperature of 84°C, internal cables with insulation. Cable connection shall be by means of a screw connector (2× fire-resistant terminal blocks made of steatite), with bridging allowable. The speaker shall be certified according to EN 54-24: 2008 with CPD number 0359-CPD-0103, certified according to ISO 7240-24: 2010, complies with BS 5839-8: 2008 14.8.

The speaker shall include a transformer having multiple taps (0.8W, 1.5W, 3W, 6W) at 100V adjustable. The output sound

pressure level at a distance of 1m with a 1W input level applied shall be 94 dB SPL (average 0.5 to 5 KHz). The speaker shall have a frequency response of 150 – 20,000Hz (-20dB). Ingress Protection, IP21C.

The speaker Grill shall be constructed of steel and cabinet shall be constructed of wood. The speaker shall be available in white (RAL9011) or black (RAL9010) color. The unit shall have dimensions of 250 (W) ×190 (H) × 108 (D) mm, and a weight of 1.7 kg. Fire Rated Cable can be directly connected to the speaker via 20mm cable glands drilled directly into the wooden cabinet.