BC-1

BHM
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Audiometric Bone Conductor – the standard for audiometric diagnostic

Product Information

The BHM BC-1 audiometric bone conductor is developed, fabricated and hand assembled by BHM in Austria. It is based on state-of-the-art bone conduction technology and specialist know-how from BHM, the leading company of bone conduction hearing aids. BC-1 comes with a 2 meter long integrated fixed cable. Ultrasonic welding of the housing parts ensures special robustness and protection against environmental influences such as moisture and sweat. A customized headband complying with the audiometry standard is available. In addition, BC-1 is compatible with the existing metallic headband for Audiometry.

BHM knows the importance of these devices for customers, and therefore practice its best every day.

Features

- 2 m integrated fixed cable
- 6.35 mm mono jack plug
- Suitable headband
- Meets the international Audiometry standard
- Biocompatible material
- ISO and ANSI compliant
- 3 year warranty
- Compatible with the existing metallic headband for Audiometry
- No external metal parts – best protection against electro static discharge
- A plastic headband with rotatable clip (60 degrees) is available too

Parts

BC-1 Audiometric Bone Conductor
BC-1 Headband
Article numbers: on request

Compliance Standards

- IEC 60645-1:2012 – Electroacoustics – Audiometric equipment
  Part 1: Equipment for pure-tone audiometry
- ANSI/ASA S3.6-2010 – American National Standard Specification for Audiometers
- ISO 389-3:2016 – Acoustics – Reference zero for the calibration of audiometric equipment
  Part 3: Reference equivalent threshold force levels for pure tones and bone vibrators
- IEC 60318-6:2007 – Electroacoustics – Simulators of human head and ear
  Part 6: Mechanical coupler for the measurement of bone vibrators
- ANSI/ASA S3.13-1987 (R2012) – American National Standard
  Mechanical coupler for measurement of bone vibrators

Symbolic photo

Reliable performance
High-end technology
Outstanding quality

A quality product of BHM-Tech Produktionsgesellschaft mbH, Grafenschachen 242, 7423 Grafenschachen, Austria / www.bhm-tech.at

Version 1.4 – 07/2022

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Technical Data Sheet

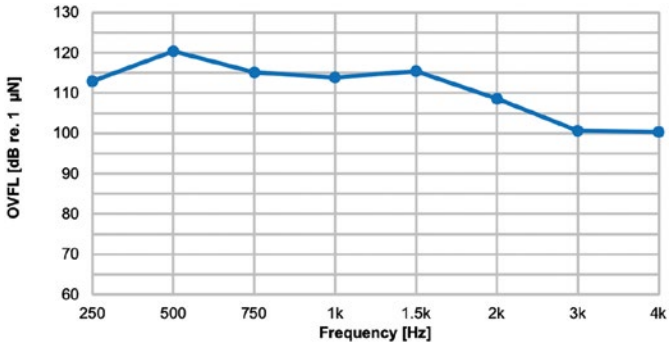
Electrical data

- Impedance: 10 Ohm @ 1 kHz
- Sensitivity: 114 dB re. 1 µN @ 1 V_{rms} and 1 kHz

Mechanical data

- Weight approx.: 20 g (without cable)
- Dimensions: Length: 29.3 mm
  Width: 18.1 mm
  Height: 18.9 mm
- Housing material: ABS polymer
- Connection: Fixed cable with mono jack plug

Output Vibratory Force Level @ 1 V_{rms}



Measuring conditions

- Artificial Mastoid Bruel & Kjaer 4930 with static force 5.4 N
- Compensation for the transmission through the Artificial Mastoid via post processing of all measurements
- THD measured at the levels required by the audiometry standard

Total Harmonic Distortion

Frequency [Hz]	250	500 - 750	1k	1.5k - 4k
Hearing Level [dB]	20	50	60	60
THD [%] typ.	2.5	<1.1	<1.1	<0.3
THD [%] max.	5.0	2.0	2.0	1.0

Audiometric Calibration

Frequency [Hz]	mV	dB re. 1 mV
250	460.1	53.3
500	68.8	36.8
750	45.7	33.2
1k	26.6	28.5
1.5k	11.1	20.9
2k	12.3	21.8
3k	26.4	28.4
4k	51.6	34.3

Required input voltage for BC-1 (10 Ohm impedance) to provide force levels 40 dB HL ±3.0 dB above threshold (RETVFL) based on ISO and ANSI standards.

Warnings

- This class of equipment is allowed in domestic establishments when used under the jurisdiction of a health care professional.
- BC-1 may only be used with certified audiometers.
- BC-1 is intended for diagnostic and clinical use by audiologists and other trained health care professionals in testing the hearing of their patients.
- No parts may be eaten, burnt, or in any way used for purposes other than the applications defined above.
- Clean the device between patients with a disinfectant wipe for hearing systems, earmolds or spectacles.
  Afterwards wipe dry with a clean and soft cloth.
- This device is covered by the Directive 2002/96/EC on waste electrical and electronic equipment (WEEE). The device can be disposed of as normal electronic waste, according to local regulations.

RoHS compliant

AUSTRIA

CE 0297

According to EU directive 93/42/EEC
Quality management system according to DIN EN ISO 13485

Changes may be done without any notice in order to improve product performance.

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