

BHM III.3 (Code 1303)

Binaural ICP head microphone for binaural recordings



Overview

BHM III.3 is a binaural head microphone designed for making aurally accurate measurements for which no artificial head can be used. This is the case, for example, for recordings at the driver's position in a moving vehicle on a test track.

The low-noise and calibratable BHM III.3 supports all characteristics of human hearing perception. It is worn like headphones, and the user himself takes over the acoustic function of the artificial head. From the ear cones placed in the ear canal entrance, the sound is transmitted to the two high-quality ICP microphones.

A calibration is possible at any time using a calibration adapter (included) and a pistonphone.

The binaural head microphone can directly be connected to frontends with ICP inputs (BNC), such as the HEADlab module *labV24 II*, *SQuadriga III*, or *SQobold*.

Features

- Binaural head microphone with ICP preamplifiers and condenser measurement microphones
- Low inherent noise
- Calibratable with pistonphone
- TEDS (IEEE 1451.4)
- Ear cones for the ear canal entrances
- Variable, individually adaptable frame system for optimal wearing comfort
- BNC plugs for connection to a frontend
- Compact systems
 - *labCOMPACT12*
 - *labCOMPACT12-V1*
 - *labCOMPACT24*
 - *labCOMPACT24-V1*
- MMF III.0 (BrakeOBSERVER)
- Various older frontends from HEAD acoustics

Compatible frontends from HEAD acoustics

- *labHSU*
- HEADlab input modules
 - *labV24 II*
 - *labV12 II*
 - *labVF6 II*
 - *labM6 II*
 - *labV6HD*
 - *labCF6*
- Mobile recording and playback systems
 - *SQuadriga III*
 - *SQobold*



Scope of supply

- BHM III.3 (Code 1303)
Binaural ICP head microphone
- 10 ear cones, 2 already mounted
- Calibration adapter to connect a pistonphone
- HSC V.4 (Code 3336)
Carrying bag
- Manual
- Data medium: Setup Package

Adapters for connecting BHM III.3 to compatible frontends

- *labV24 II*
 - CDB XII-V1.1 (Code 9894-V1.1)
Breakout cable D-Sub 25-pin ↔
12 x BNC, female, 1 m
(channels 1-6, 13-18)
 - CDB XII-V2.1 (Code 9894-V2.1)
Breakout cable D-Sub 25-pin ↔
12 x BNC, female, 1 m
(channels 7-12, 19-24)
- *labCOMPACT12*
labCOMPACT12-V1
labCOMPACT24
labCOMPACT24-V1
MMF III.0
 - CDB X.1 (Code 3792)
Breakout cable D-Sub 25-pin ↔
6 x BNC, female, 1 m
- *labM6 II*
 - CBL X.01 (Code 3791-01)
Adapter cable, 7-pin LEMO ↔
BNC, 10 cm
- *labHSU / SQadriga III / SQobold*
BHM III.3 can directly be connected to the ICP inputs. For connecting BHM III.3 to the headset input of SQadriga III and SQobold, the adapter CLB I.3 is required.
 - CLB I.3 (Code 9848)
Adapter LEMO 14-pin ↔
2 x BNC, female, 20 cm

Technical Data

Connectors	2 x BNC
Microphones	2 x 1/2" measurement microphones
TEDS (IEEE 1451.4) read	TEDS class 1, shared signal wire (version 0.9 and 1.0)
Free field transmission coefficient (nominal)	50 mV / Pa
Free field frequency range	3.5 Hz to 20 kHz, DIN EN 60651
Sound pressure level limit	135 dB _{SPL} (<3% harmonic distortion at 1 kHz)
Dynamic range	120 dB
Nominal output impedance	<100 Ω
Operating current	2 mA to 10 mA, nominal 4 mA
Start-up time	1 min
Inherent noise	15 dB(A)
Magnetic field influence (80 A/m, 50 Hz)	<22 dB
Operating temperature range (<±0.5 dB)	-25 °C to +70 °C
Temperature coefficient	≥0.01 dB/K
Static pressure coefficient	1 x 10 ⁻⁵ dB/Pa
Humidity limits	r. h. <100%, no condensation allowed
Weight	345 g