

AT 1350 A

Audiometric Headphone

Order # 703.842



FEATURES

- Perfect for aural-acoustical measurements
- Colour coded right/left designation: red / blue
- Excellent attenuation of ambient noise
- Tesla technology with superior efficiency
- Pivoting ear cups (90°)
- Single-sided cable

APPLICATIONS

The AT 1350 A is a closed, dynamic headphone for the use with audiometers. It is used for aural-acoustic investigations and measurements.

Due to the closed design of the headphone, ambient noise is efficiently attenuated. The efficient Tesla transducers ensure a very good reproduction of the measured results.

The right/left identification with coloured rings meets the standards. The comfortable, replaceable ear pads and the flexible headband ensure ultimate comfort and an absolutely secure fit. The pivoting ear cups (90°) allow listening with one ear and the supplied bag ensures easy transport.

The single-sided, straight connecting cable comes with bare ends.

Important!

The AT 1350 A has been designed for the operation with an audiometer! When replacing the audiometric headphone, the audiometer has to be calibrated again!

TECHNICAL SPECIFICATIONS

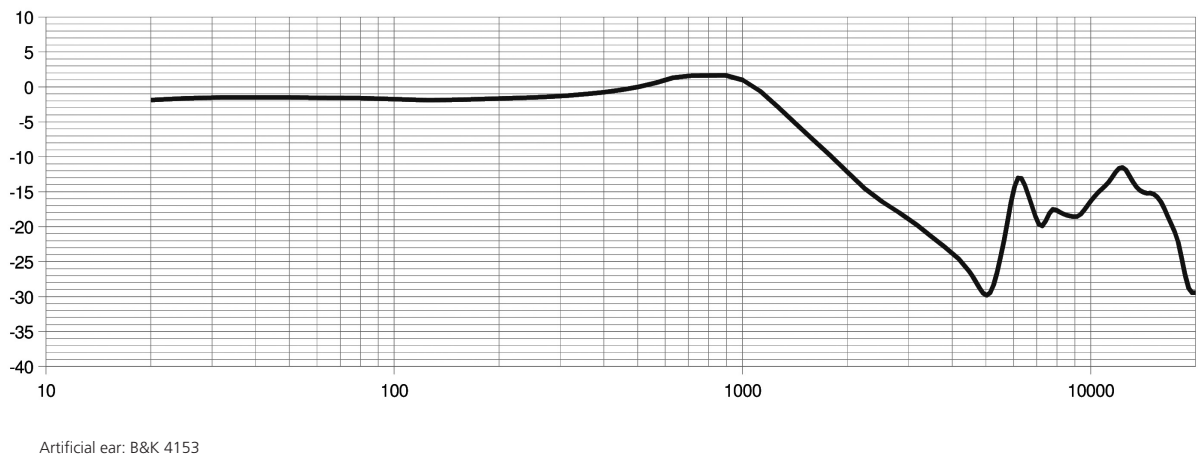
Transducer type	Dynamic
Operating principle	Closed
Frequency response	5 - 30,000 Hz
Nominal impedance	32 Ω
Nominal SPL	
(B&K 4153/1 mW/500 Hz)	125 dB (500 Hz), 126 dB (1 kHz)
Max. SPL	135 dB (500 Hz)
T.H.D.	< 0.2%
Power handling capacity	500 mW
Sound coupling to the ear	Supra-aural
Ambient noise attenuation	approx. 23 dBA
Headband pressure	approx. 5.0 N
Connecting cable	1.5 m, single-sided with bare ends
Weight without cable	174 g

SPARE PARTS

Ear pads (one pair)	Order # 910.376
Storage bag	Order # 906.840
Headband pad	Order # 906.875
Bare-ended connecting cable, 3 m	Order # 911.003

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FREQUENCY RESPONSE



PURE TONE REFERENCE SOUND PRESSURE LEVEL

(acc. to DIN EN ISO 389-1:2000-09)

Frequency (Hz)	dB (re 20 µPa)
125	45.0
250	27.0
500	13.5
750	9.0
1000	7.5
1500	7.5
2000	9.0
3000	11.5
4000	12.0
6000	16.0
8000	15.5

Equivalent reference sound pressure level in an ear simulator acc. to DIN EN 60318-1, e.g. B&K 4153.

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DIFFERENCE OF THE FREE FIELD AND COUPLER TRANSMISSION FACTOR $G_f - G_c$

Study was conducted at the "Hörzentrum Oldenburg GmbH". The determination of the free field transmission factor has been performed according to the standard DIN IEC 60268-7:2011-08 using the direct method of measurement.

The following table shows the measured values of $G_f - G_c$ and the standard deviation for the free field transmission factor (values rounded by 0.5 dB; values marked with * are interpolated; values marked with ** are extrapolated).

Frequency (Hz)	$G_f - G_c$ (dB)	StabW(G_f) (dB)
100**	-18.0	-
125	-17.0	4.8
160*	-16.0	-
200*	-15.0	-
250	-14.0	1.6
315*	-13.0	-
400*	-12.5	-
500	-11.5	1.8
630*	-13.0	-
750	-14.0	1.8
800*	-14.0	-
1000	-13.5	2.2
1250*	-11.5	-
1500	-10.0	2.7
1600*	-10.5	-
2000	-12.0	2.3
2500*	-14.5	-
3000	-16.0	1.7
3150*	-16.0	-
4000	-16.0	2.6
5000*	-12.5	-
6000	-9.0	1.9
6300*	-8.5	-
8000	-6.0	3.6

CORRECTED VALUE FOR SPEECH AUDIOMETRY

For a speech simulating noise according to DIN 45626-1 ("Sound carrier with speech for hearing test") as calibration signal with an equivalent free field sound pressure level of 70 dB re 20 μ Pa, for this headphone a corrected value of 12.9 dB for speech audiometry results from the values of the a.m. table according to PTB report PTB-MA-27 (ISBN-3-89429-262-8), annex A.