



minuendo[®]
Lossless earplugs

Certifications & Ratings

U.S. Standard (ANSI)

Applies to foam tips in fully closed position

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean Attenuations (dB)	22.7	20.8	24.7	26.7	34.3	37.2	37.2	39.8	39.5
Standard Deviations (dB)	4.0	2.8	3.3	3.1	3.6	3.7	3.9	4.1	3.6

	Foam	1-Flange	2-Flange	3-Flange
NRR Value (dB)	21	15	20	21

Michael & Associates is accredited by the National Institute of Standards and Technology (NIST) National Laboratory Accreditation Program (NVLAP) for tests performed according to ANSI S3.19-1974, ANSI S12.6-2016, AS/NZ S1270:2002, and EN352 parts 1-8. These accreditation criteria encompass the requirements of international standard ISO 17025. All measurement equipment are calibrated with instrumentation traceable to the NIST.

European Standard (CE)

Applies to foam tips in fully closed position

Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuations (dB)	20,5	19,3	20,0	21,9	30,1	27,9	33,9
Standard Deviations (dB)	4,1	3,0	3,8	3,5	4,1	5,0	6,3
APV	16,4	16,3	16,2	18,4	26,0	22,9	27,6

H=24dB/ M=19dB/ L=18dB

EN 352-2:2002 in fully closed position and compliant to PPE EU regulation 2016/425

	Foam	1-Flange	2-Flange	3-Flange
SNR Value (dB)	22	19	21	24

Notified body: ID 1974, PZT GmbH, Bismarckstrasse 264B, 26389 Wilhelmshaven, Germany.

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