

Electroacoustics — Simulators of human head and ear —

**Part 5: 2 cm³ coupler for the
measurement of hearing aids and
earphones coupled to the ear by
means of ear inserts**

The European Standard EN 60318-5:2006 has the status of a
British Standard

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National foreword

This British Standard was published by BSI. It is the UK implementation of EN 60318-5:2006. It is identical with IEC 60318-5:2006. It supersedes BS 6111:1981 which is withdrawn.

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A list of organizations represented on EPL/29 can be obtained on request to its secretary.

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**Electroacoustics -
Simulators of human head and ear
Part 5: 2 cm³ coupler for the measurement of hearing aids
and earphones coupled to the ear by means of ear inserts
(IEC 60318-5:2006)**

Electroacoustique -
Simulateurs de tête et d'oreille humaines
Partie 5: Coupleur de 2 cm³
pour la mesure des appareils de
correction auditive et des écouteurs
couplés à l'oreille par des embouts
(CEI 60318-5:2006)

Elektroakustik -
Simulatoren des menschlichen Kopfes
und Ohres
Teil 5: 2-cm³-Kuppler zur Messung
von mittels Ohreinsätzen angekoppelten
Hörgeräten und Ohrhörern
(IEC 60318-5:2006)

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CENELEC

European Committee for Electrotechnical Standardization
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Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 29/600/FDIS, future edition 1 of IEC 60318-5, prepared by IEC TC 29, Electroacoustics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60318-5 on 2006-09-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2007-06-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2009-09-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60318-5:2006 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60118-7	NOTE Harmonized as EN 60118-7:2005 (not modified).
IEC 61094-1	NOTE Harmonized as EN 61094-1:1994 (not modified).

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ELECTROACOUSTICS – SIMULATORS OF HUMAN HEAD AND EAR –

Part 5: 2 cm³ coupler for the measurement of hearing aids and earphones coupled to the ear by means of ear inserts

1 Scope

This part of IEC 60318 describes an acoustic coupler for loading an earphone or hearing aid with a specified acoustic impedance when determining its physical performance characteristics, in the frequency range 125 Hz to 8 kHz. It is suitable for air conduction hearing aids and earphones, coupled to the ear by means of ear inserts e.g. ear moulds or similar devices.

The sound pressure developed by an earphone is not, in general, the same in the coupler as in a person's ear. However, it can be used as a simple and ready means for the exchange of specifications and of physical data on hearing aids and for the calibration of specified insert earphones used in audiometry.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61094-4, *Measurement microphones – Part 4: Specifications for working standard microphones*

ISO 389-2, *Acoustics – Reference zero for the calibration of audiometric equipment – Part 2: Reference equivalent threshold sound pressure levels for pure tones and insert earphones*

BIPM/IEC/ISO/IUPAC/IUPAP/OIML:1995, *Guide to the expression of uncertainty in measurement (GUM)*

3 Terms and definitions

For the purposes of this part of IEC 60318, the following terms and definitions apply:

3.1

acoustic coupler

cavity of predetermined shape and volume which is used for the calibration of an earphone in conjunction with a microphone to measure the sound pressure developed within the cavity

3.2

effective volume

equivalent volume of air of the acoustical compliance of the coupler formed by the cavity and the microphone at a frequency of 250 Hz