IEC TR 61094-10

Edition 1.0 2022-08

TECHNICAL REPORT

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Electroacoustics – Measurement microphones – Part 10: Absolute pressure calibration of microphones at low frequencies using calculable pistonphones

IEC TR 61094-10:2022-08(en)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 17.140.50

ISBN 978-2-8322-4374-9

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ELECTROACOUSTICS – MEASUREMENT MICROPHONES –

Part 10: Absolute pressure calibration of microphones at low frequencies using calculable pistonphones

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The text of this Technical Report is based on the following documents:

Draft	Report on voting
29/1113/DTR	29/1124/RVDTR

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Report is English.

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A list of all parts in the IEC 61094 series, published under the general title *Electroacoustics – Measurement microphones*, can be found on the IEC website.

Future documents in this series will carry the new general title as cited above. Titles of existing documents in this series will be updated at the time of the next edition.

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- withdrawn,
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ELECTROACOUSTICS – MEASUREMENT MICROPHONES –

Part 10: Absolute pressure calibration of microphones at low frequencies using calculable pistonphones

1 Scope

This part of IEC 61094

- is applicable to laboratory standard microphones meeting the requirements of IEC 61094-1 and other types of measurement microphones,
- describes one possible absolute method for determining the complex pressure sensitivity, based on a device capable of generating a known sound pressure, especially at low frequencies, and
- provides a reproducible and accurate basis for the measurement of sound pressure at low frequencies.

All quantities are expressed in SI units.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 61094-1:2000, *Measurement microphones – Part 1: Specifications for laboratory standard microphones*

IEC 61094-2:2009, *Electroacoustics – Measurement microphones – Part 2: Primary method for pressure calibration of laboratory standard microphones by the reciprocity technique*
IEC 61094-2:2009/AMD1:2022

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61094-1 and IEC 61094-2 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

3.1
pistonphone
device in which sound pressure is generated in a fixed sealed volume of air, by the motion of one or more pistons creating a well-defined volume velocity

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