



# TECHNICAL REPORT



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

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 17.140.50

ISBN 978-2-8322-4374-9

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## CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references .....	6
3 Terms and definitions .....	6
4 Reference environmental conditions .....	7
5 Principles of absolute pressure calibration of microphones using a calculable pistonphone.....	7
5.1 General principle .....	7
5.2 Basic expressions.....	7
5.3 Heat conduction correction .....	9
5.4 Operating frequency range.....	9
6 General characteristics .....	9
6.1 The pistonphone .....	9
6.2 Measuring the piston volume velocity.....	10
6.3 Test signals .....	10
6.4 Mounting the microphone and pressure-equalizing tube.....	10
6.5 Measuring the output voltages of the microphones.....	10
7 Factors influencing the pressure sensitivity.....	10
7.1 General.....	10
7.2 Polarizing voltage .....	11
7.3 Shield configuration .....	11
7.4 Dependence on environmental conditions .....	11
7.4.1 General .....	11
7.4.2 Static pressure .....	11
7.4.3 Temperature.....	11
7.4.4 Humidity .....	12
7.5 Vibration .....	12
7.6 Distortion .....	12
8 Calibration uncertainty components .....	12
8.1 General.....	12
8.2 Measurements of microphone output voltage .....	12
8.3 Piston .....	12
8.3.1 Frequency .....	12
8.3.2 Measurement of the volume velocity .....	12
8.4 Acoustic transfer impedance .....	13
8.4.1 Cavity properties .....	13
8.4.2 Physical quantities.....	13
8.5 Microphone parameters .....	13
8.5.1 Front cavity.....	13
8.5.2 Acoustic impedance.....	13
8.5.3 Polarizing voltage .....	14
8.6 Uncertainty on pressure sensitivity level .....	14
Annex A (informative) Example designs of pistonphones using laser interferometry .....	16

Annex B (informative) Measurement uncertainties .....	18
B.1 General.....	18
B.2 Example of a typical uncertainty analysis .....	18
B.2.1 General .....	18
B.2.2 Uncertainty budget .....	18
B.2.3 Combined and expanded uncertainties .....	19
Bibliography.....	20
Figure 1 – Equivalent circuit for evaluating the sound pressure over the exposed surface of the diaphragm of the microphone .....	8
Figure A.1 – Schematic cross-section of a laser pistonphone.....	16
Figure A.2 – Example of laser pistonphone .....	17
Figure A.3 – Example of laser pistonphone .....	17
Table 1 – Uncertainty components .....	14
Table B.1 – Example of uncertainty budget at 1 Hz .....	19

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**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.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

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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