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INTERNATIONAL STANDARD

**Sound system equipment –
Part 4: Microphones**

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CONTENTS

FOREWORD.....	6
1 Scope.....	8
2 Normative references.....	8
3 General conditions.....	9
3.1 General.....	9
3.2 Measurement conditions.....	9
3.2.1 General.....	9
3.2.2 Rated conditions.....	10
4 Particular conditions.....	11
4.1 Pre-conditioning.....	11
4.2 Sound source.....	11
4.3 Measurement of sound pressure.....	11
4.4 Voltage measuring system.....	11
4.5 Acoustical environment.....	11
4.5.1 General.....	11
4.5.2 Free-field conditions.....	11
4.5.3 Diffuse field conditions.....	13
4.5.4 Microphone coupled to a sound source by means of a small cavity coupler.....	14
4.6 Methods of measuring frequency response.....	14
4.6.1 Point-by-point and continuous sweep frequency methods.....	14
4.6.2 Calibration methods.....	15
4.7 Overall accuracy.....	15
4.8 Graphical presentation of results.....	15
5 Type description (acoustical behaviour).....	16
5.1 Principle of the transducer.....	16
5.2 Type of microphone.....	16
5.3 Type of directional response characteristics.....	16
6 Terminals and controls.....	16
6.1 Marking.....	16
6.2 Connectors and electrical interface values.....	16
7 Reference point and axis.....	16
7.1 Reference point.....	16
7.2 Reference axis.....	16
8 Rated power supply.....	17
8.1 Characteristic to be specified.....	17
8.2 Method of measurement.....	17
9 Electrical impedance.....	17
9.1 Internal impedance.....	17
9.1.1 Characteristic to be specified.....	17
9.1.2 Methods of measurement.....	17
9.2 Rated impedance.....	18
9.3 Minimum permitted load impedance.....	18
10 Sensitivity.....	18
10.1 General.....	18
10.2 Sensitivities with respect to acoustical environment.....	19

10.2.1	Free-field sensitivity	19
10.2.2	Diffuse-field sensitivity	19
10.2.3	Close-talking sensitivity.....	20
10.2.4	Pressure sensitivity	21
10.3	Sensitivities with respect to nature of signal	21
10.3.1	Rated sensitivity	21
10.3.2	Characteristic sensitivity for speech	21
11	Response	22
11.1	Frequency response	22
11.1.1	Characteristic to be specified	22
11.1.2	Method of measurement	23
11.2	Effective frequency range	23
11.2.1	Characteristic to be specified	23
11.2.2	Method of measurement	23
12	Directional characteristics	23
12.1	Directional pattern	23
12.1.1	Characteristic to be specified	23
12.1.2	Methods of measurement.....	23
12.2	Directivity index	25
12.2.1	Characteristic to be specified	25
12.2.2	Method of measurement	25
12.3	Front-to-rear sensitivity index (0° – 180°)	25
12.3.1	Characteristic to be specified	25
12.3.2	Method of measurement	25
12.4	Noise-cancelling index.....	25
12.4.1	Characteristic to be specified	25
12.4.2	Method of measurement	26
12.5	Special characteristics for stereo microphones.....	26
12.5.1	General	26
12.5.2	Included angle of an XY (left-right) microphone	26
12.5.3	Acceptance angle	26
12.5.4	Threshold angle	27
13	Amplitude non-linearity	27
13.1	General	27
13.2	Total harmonic distortion	27
13.2.1	Characteristics to be specified	27
13.2.2	Method of measurement	27
13.3	Harmonic distortion of the n^{th} order ($n = 2, 3, \dots$)	28
13.3.1	Characteristic to be specified	28
13.3.2	Method of measurement	28
13.4	Difference frequency distortion of second order.....	29
13.4.1	Characteristic to be specified	29
13.4.2	Method of measurement	29
14	Limiting characteristics	29
14.1	Rated maximum permissible peak sound pressure	29
14.2	Overload sound pressure.....	30
14.2.1	Characteristic to be specified	30
14.2.2	Method of measurement	30
15	Balance	30

15.1	Balance of the microphone output.....	30
15.2	Balance under working conditions.....	30
16	Equivalent sound pressure level due to inherent noise.....	31
16.1	Characteristic to be specified.....	31
16.2	Method of measurement.....	31
17	Ambient conditions.....	32
17.1	General.....	32
17.2	Pressure range.....	32
17.3	Temperature range.....	32
17.4	Relative humidity range.....	32
18	External influences.....	32
18.1	General.....	32
18.1.1	Specification and measuring methods.....	32
18.1.2	Other external interferences.....	32
18.2	Equivalent sound pressure due to external magnetic fields.....	33
18.2.1	Characteristic to be specified.....	33
18.2.2	Method of measurement.....	33
18.3	Equivalent sound pressure due to mechanical vibration.....	33
18.3.1	Characteristic to be specified.....	33
18.3.2	Method of measurement.....	34
18.4	Equivalent sound pressure due to wind.....	34
18.4.1	Characteristic to be specified.....	34
18.4.2	Method of measurement.....	34
18.5	Transient equivalent sound pressure due to "pop" effect.....	37
18.5.1	Characteristic to be specified.....	37
18.5.2	Method of measurement.....	38
18.6	Equivalent sound pressure due to electromagnetic interference.....	39
18.6.1	General.....	39
18.6.2	Characteristic to be specified.....	39
18.6.3	Method of measurement.....	39
18.7	Electrostatic discharge.....	40
19	Magnetic stray field.....	40
19.1	Characteristic to be specified.....	40
19.2	Method of measurement.....	40
20	Physical characteristics.....	40
20.1	Dimensions.....	40
20.2	Weight.....	40
20.3	Cables and connectors.....	40
21	Classification of the characteristics to be specified.....	40
21.1	General.....	40
Annex A (normative)	Sound insulation device.....	43
Annex B (informative)	Simplified procedure for "pop" measurements.....	44
Annex C (informative)	Supplement for digital microphones.....	47
Bibliography	49
Figure 1	– Balance of the output.....	30
Figure 2	– Balance under working conditions.....	31

Figure 3 – Measurement set-up for wind influence	35
Figure 4 – Wind generators, type 1 (Figure 4a) and type 2 (Figure 4b)).....	36
Figure 5 – Electrical and mechanical set-up for the measuring of the "pop" effect	38
Figure A.1 – Sound insulation device	43
Figure B.1 – Measurement set-up.....	45
Figure B.2 – Test fixture for the sound field sensitivity	46
Table 1 – Reverberation time of the empty room.....	14
Table 2 – Speech power weighting factor at octave-band centre frequencies	22
Table 3 – Reference signal and characteristics	39
Table 4 – Classification of characteristics.....	42
Table C.1 – Classification of the characteristics to be specified	47
Table C.2 – Additional digital characteristics to be specified	48

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SOUND SYSTEM EQUIPMENT –

Part 4: Microphones

FOREWORD

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International Standard IEC 60268-4 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

This fourth edition cancels and replaces the third edition published in 2004, and constitutes a technical revision.

The main changes with respect to the previous edition are the following:

- correction of noise measurement,
- added annex for digital microphones,
- added requirement for tolerances in data to be specified.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/1678/FDIS	100/1707/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 60268 series, under the general title "*Sound system equipment*", can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual edition of this document may be issued at a later date.

SOUND SYSTEM EQUIPMENT –

Part 4: Microphones

1 Scope

This part of IEC 60268 specifies methods of measurement for the electrical impedance, sensitivity, directional response pattern, dynamic range and external influences of sound system microphones, and also details the characteristics to be specified by the manufacturer.

It applies to sound system microphones for all applications for speech and music. It does not apply to measurement microphones, but it does apply to each audio channel of microphones having more than one channel, for example for stereo or similar use. It is also applicable to flush-mounted microphones and to the analogue characteristics of microphones with digital audio output.

For the purposes of this International Standard, a microphone includes all such devices as transformers, pre-amplifiers, or other elements that form an integral part of the microphone, up to the output terminals specified by the manufacturer.

NOTE The characteristics specified in this standard do not completely describe the subjective response of the microphone. Further work is necessary to find new definitions and measurement procedures for a later replacement by objective characteristics of at least some of the subjective descriptions used to describe microphone performance.

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 60065:2001, *Audio, video and similar electronic apparatus – Safety requirements*
Amendment 1 (2005)

IEC 60268-1:1985, *Sound system equipment – Part 1: General*
Amendment 1 (1988)
Amendment 2 (1988)

IEC 60268-2:1987, *Sound system equipment – Part 2: Explanation of general terms and calculation methods*
Amendment 1 (1991)

IEC 60268-3:2000, *Sound system equipment – Part 3: Amplifiers*

IEC 60268-5:2003, *Sound system equipment – Part 5: Loudspeakers*
Amendment 1 (2007)

IEC 60268-11:1987, *Sound system equipment – Part 11: Application of connectors for the interconnection of sound system components*
Amendment 1 (1989)
Amendment 2 (1991)

IEC 60268-12:1987, *Sound system equipment – Part 12: Application of connectors for broadcast and similar use*
Amendment 1 (1991)
Amendment 2 (1994)

IEC 61000-4-2:1995, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test*

IEC 61000-4-3:2006, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*
Amendment 1 (2007)

IEC 61265:1995, *Electroacoustics – Instruments for measurement of aircraft noise – Performance requirements for systems to measure one-third-octave-band sound pressure levels in noise certification of transport-category aeroplanes*

IEC 61938:1996, *Audio, video and audiovisual systems – Interconnections and matching values – Preferred matching values of analogue signals*

ISO 354:2003, *Acoustics – Measurement of sound absorption in a reverberation room*

ITU-T Recommendation P.51:1996, *Artificial mouth*