
**Acoustics — Description, measurement
and assessment of environmental
noise —**

**Part 2:
Determination of environmental noise
levels**

*Acoustique — Description, évaluation et mesurage du bruit de
l'environnement —*

Partie 2: Détermination des niveaux de bruit de l'environnement



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 1996-2 was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise*.

This second edition of ISO 1996-2, together with ISO 1996-1:2003, cancels and replaces the first edition (ISO 1996-2:1987), ISO 1996-1:1982 and ISO 1996-3:1987. It also incorporates the Amendment ISO 1996-2:1987/Amd.1:1998.

ISO 1996 consists of the following parts, under the general title *Acoustics — Description, measurement and assessment of environmental noise*:

- *Part 1: Basic quantities and assessment procedures*
- *Part 2: Determination of environmental noise levels*

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Acoustics — Description, measurement and assessment of environmental noise —

Part 2: Determination of environmental noise levels

1 Scope

This part of ISO 1996 describes how sound pressure levels can be determined by direct measurement, by extrapolation of measurement results by means of calculation, or exclusively by calculation, intended as a basis for assessing environmental noise. Recommendations are given regarding preferable conditions for measurement or calculation to be applied in cases where other regulations do not apply. This part of ISO 1996 can be used to measure with any frequency weighting or in any frequency band. Guidance is given to evaluate the uncertainty of the result of a noise assessment.

NOTE 1 As this part of ISO 1996 deals with measurements under actual operating conditions, there is no relationship between this part of ISO 1996 and other ISO standards specifying emission measurements under specified operating conditions.

NOTE 2 For the sake of generality, the frequency and time weighting subscripts have been omitted throughout this part of ISO 1996.

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.

ISO 1996-1:2003, *Acoustics — Description, measurement and assessment of environmental noise — Part 1: Basic quantities and assessment procedures*

ISO 7196, *Acoustics — Frequency-weighting characteristic for infrasound measurements*

IEC 60942:2003, *Electroacoustics — Sound calibrators*

IEC 61260:1995, *Electroacoustics — Octave-band and fractional-octave band filters*

IEC 61672-1:2002, *Electroacoustics — Sound level meters — Part 1: Specifications*

Guide to the expression of uncertainty in measurement (GUM), BIPM/IEC/IFCC/ISO/IUPAC/IUPAP/OIML, 1993 (corrected and reprinted, 1995)