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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 19889.14-2010

**Acoustics -- Measurement of sound insulation in buildings and
of building elements -- Part 14: Guidelines for special situations
in the field**

(English Translation)

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Foreword

GB/T 19889 "Acoustics buildings and building elements - Measurement of sound insulation" is divided into the following sections.

- Part 1. suppressed flanking transmission of laboratory testing facility requirements;
- Part 2. Determination of precision data, validation and application;
- Part 3. building elements Laboratory measurements of airborne sound insulation;
- Part 4. airborne sound insulation between rooms Field measurements;
- Part 5. exterior wall elements and facades Field measurements of airborne sound insulation;
- Part 6. floor impact sound insulation of laboratory measurements;
- Part 7. floor impact sound insulation of field measurements;
- Part 8. Heavy standard floor coverings percussion improve the amount of laboratory measurements;
- Part 10. Small building elements Laboratory measurements of airborne sound insulation;
- Part 14. Guidelines for special on-site measurements.

This section GB/T 19889 Part 14. This part identical with ISO 140-14:2004 "Acoustics buildings and building components spacer Acoustic measurements - Part 14. Guidelines for special field measurements. " this section Press GB/T 1.1 the requirements of the ISO 140-14:2004 made some editorial changes.

This section of the Appendix A, Appendix B, Appendix C, Appendix D and Appendix E is an informative annex.

This section proposed by the Chinese Academy of Sciences.

The acoustics in part by the National Standardization Technical Committee (SAC/TC17) centralized.

This section drafted by. China Academy of Building Research, Chinese Academy of Sciences Institute of Acoustics, Tongji University, Hunan Building Science Hospital, Southeast University, Nanjing University.

1 Scope

GB/T 19889 provisions of this section involving airborne sound insulation and impact sound insulation field measurements, this section is GB/T 19889.4 and GB/T 19889.7 supplements given in GB/T 19889.4 and GB/T 19889.7 are not directly covered Measurement of sound insulation under the special conditions of the site guidelines.

Note: Standard GB/T 19889.4 and GB/T 19889.7 (collectively referred to as the basic standard) details the methods of measurement under ideal field conditions, but how in the non Rectangular room, common room with greatly different scales of measurement room is appropriately set, not yet provided information and is not given to great Measurement guidelines occasions room, elongated room, stairs and coupling the room and so on. This section will help to improve the development and application of sound insulation in buildings site Measurement reproducibility, and can avoid the time-consuming arrangements to consider the actual measurement site, so that some of the special conditions of the site survey work to implement more specification.

This section applies to homes, schools, and hotels and other buildings smaller than 250m³ volumetric measurement of sound insulation of the room.

According to GB/T 19889.4 and GB/T 19889.7 when measurement is not required in this section, unless otherwise agreed.

2 Normative references

The following documents contain provisions which, through reference GB/T 19889 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 19889.4-2005 Acoustics Measurement of sound insulation buildings and building elements - Part 4. airborne sound insulation between rooms site Measurement (ISO 140-4:1998, IDT) GB/T 19889.7-2005 Acoustics Measurement of sound insulation buildings

and building elements - Part 7. floor Field measurements of impact sound insulation (ISO 140-7:1998, IDT)

3 Technical background

Pursuant to this section to test Nordisk Technical Report 203 (acoustic performance of buildings NTTechnicalReport203 additional measure Guidelines, through 1992-11), this part absorbs the essence of the contents of the technical report.

Note: originally written in accordance with ISO Technical Report ISO/T R140-13:1997

"Measurement of sound insulation buildings and building elements - Part 13. Guidelines."

ISO/TR140-13 Nordisk is testing technical report 203, ISO/T R140-13 was withdrawn in 2007.

This section is based on certain theoretical research, experimental research results and experience to develop a large number of field measurements.

This section gives an example of a suitable measurement setup schematic diagram. In most field conditions, can establish a suitable reference sample measurement Settings. Taking into account the appropriate measurement site may not exactly set the example, this section schematic diagram of an example as informative appendix.

Sketch marked speaker and microphone placement position schematic position, each position should meet GB/T 19889.4 provisions include Young Sound room with the distance from the interface requirements of all involved.

Sketch listed in this section does not include all cases, the listed content may be added in the future.

Note: the following two cases may be inconsistent with the basic standards.

Methods a) GB/T 19889.4 measure airborne sound insulation, the sound field is assumed that the sound source chamber and the receiving chamber is approximately diffuse sound field, so it requires microphone locations evenly distributed throughout the interior space.

For example. If the source room and there is a long narrow corridor acoustic ceilings and floor carpet, then, from one end to the other end of the sound