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**Acoustics –
Determination of sound power levels of noise sources –
Guidelines for the use of basic standards (ISO 3740:2019);
English version EN ISO 3740:2019,
English translation of DIN EN ISO 3740:2019-08**

Akustik –
Bestimmung der Schallleistungspegel von Geräuschquellen –
Leitlinien zur Anwendung der Grundnormen (ISO 3740:2019);
Englische Fassung EN ISO 3740:2019,
Englische Übersetzung von DIN EN ISO 3740:2019-08

Acoustique –
Détermination des niveaux de puissance acoustique émis par les sources de bruit –
Lignes directrices pour l'utilisation des normes de base (ISO 3740:2019);
Version anglaise EN ISO 3740:2019,
Traduction anglaise de DIN EN ISO 3740:2019-08

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In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

This document (EN ISO 3740:2019) has been prepared by Technical Committee ISO/TC 43 “Acoustics” in collaboration with Technical Committee CEN/TC 211 “Acoustics” (Secretariat: DIN, Germany).

The responsible German body involved in its preparation was *DIN/VDI-Normenausschuss Akustik, Lärminderung und Schwingungstechnik* (DIN/VDI Standards Committee Acoustics, Noise Control and Vibration Engineering), Working Committee NA 001-01-04 AA “Noise emission of machinery and equipment — measurement, reduction, data collection”.

The DIN documents corresponding to the international documents referred to in this document are as follows:

ISO 3741:2010	DIN EN ISO 3741:2011-01
ISO 3743-1:2010	DIN EN ISO 3743-1:2011-01
ISO 3743-2:1994	DIN EN ISO 3743-2:2009-11
ISO 3744:2010	DIN EN ISO 3744:2011-02
ISO 3745:2012	DIN EN ISO 3745:2012-07
ISO 3746:2010	DIN EN ISO 3746:2011-03
ISO 3747:2010	DIN EN ISO 3747:2011-03
ISO 4871	DIN EN ISO 4871
ISO 5725 (all parts)	DIN ISO 5725 (all parts)
ISO 9295:2015	DIN EN ISO 9295:2015-09
ISO 9614-1:1993	DIN EN ISO 9614-1:2009-11
ISO 9614-2:1996	DIN EN ISO 9614-2:1996-12
ISO 9614-3:2002	DIN EN ISO 9614-3:2009-09
ISO 12001:1996	DIN EN ISO 12001:2010-01
IEC 60942	DIN EN 60942
IEC 61043	DIN EN 61043
IEC 61672-1:2013	DIN EN 61672-1:2014-07
ISO 80000-8:2007	DIN EN ISO 80000-8:2008-01

Amendments

This standard differs from DIN EN ISO 3740:2001-03 as follows:

- a) explanations on the standards dealt with here have been brought in line with their latest versions;
- b) additional standards on the determination of sound power levels (ISO/TS 7849-1, -2, ISO 9295, ISO 9614-3) have been included;
- c) terms and definitions have been supplemented;
- d) explanations on measurement uncertainty have been extended;
- e) an annex including an example of application has been added;
- f) the standard has been completely technically and editorially revised.

Previous editions

DIN 45635: 1970-03
DIN 45635-1: 1972-01, 1984-04
DIN EN ISO 3740: 2001-03

National Annex NA
(informative)**Bibliography**

DIN EN 60942, *Electroacoustics — Sound calibrators*

DIN EN 61043, *Electroacoustics — Instruments for the measurement of sound intensity — Measurement with pairs of pressure sensing microphones*

DIN EN 61672-1:2014-07, *Electroacoustics — Sound level meters — Part 1: Specifications (IEC 61672-1:2013)*

DIN EN ISO 3741:2011-01, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Precision methods for reverberation test rooms (ISO 3741:2010)*

DIN EN ISO 3743-1:2011-01, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for small, movable sources in reverberant fields — Part 1: Comparison method for a hard-walled test room (ISO 3743-1:2010)*

DIN EN ISO 3743-2:2009-11, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering methods for small, movable sources in reverberant fields — Part 2: Methods for special reverberation test rooms (ISO 3743-2:1994)*

DIN EN ISO 3744:2011-02, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

DIN EN ISO 3745:2012-07, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Precision methods for anechoic rooms and hemi-anechoic rooms (ISO 3745:2012)*

DIN EN ISO 3746:2011-03, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Survey method using an enveloping measurement surface over a reflecting plane (ISO 3746:2010)*

DIN EN ISO 3747:2011-03, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering/survey methods for use in situ in a reverberant environment (ISO 3747:2010)*

DIN EN ISO 4871, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

DIN EN ISO 9295:2015-09, *Acoustics — Determination of high-frequency sound power levels emitted by machinery and equipment (ISO 9295:2015)*

DIN EN ISO 9614-1:2009-11, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 1: Measurement at discrete points (ISO 9614-1:1993)*

DIN EN ISO 9614-2:1996-12, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 2: Measurement by scanning (ISO 9614-2:1996)*

DIN EN ISO 9614-3:2009-09, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 3: Precision method for measurement by scanning (ISO 9614-3:2002)*

DIN EN ISO 12001:2010-01, *Acoustics — Noise emitted by machinery and equipment — Rules for the drafting and presentation of a noise test code (ISO 12001:1996)*

DIN EN ISO 80000-8:2008-01, *Quantities and units — Part 8: Acoustics (ISO 80000-8:2007, corrected 2007-08-15)*

DIN ISO 5725 (all parts), *Accuracy (trueness and precision) of measurement methods and results*

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(ISO 3740:2019)

This European Standard was approved by CEN on 8 February 2019.

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COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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