

**Ergonoomika. Üldkasutatavates tsoonides
ja töökohal kasutatavad ohusignaalid.
Helisignaalid**

Ergonomics - Danger signals for public and work
areas - Auditory danger signals

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 7731:2005 sisaldab Euroopa standardi EN ISO 7731:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 25.11.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 7731:2005 consists of the English text of the European standard EN ISO 7731:2005.</p> <p>This document is endorsed on 25.11.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This International Standard specifies the physical principles of design, ergonomic requirements and the corresponding test methods for danger signals for public and work areas in the signal reception area and gives guidelines for the design of the signals. It may also be applied to other appropriate situations.</p>	<p>Scope:</p> <p>This International Standard specifies the physical principles of design, ergonomic requirements and the corresponding test methods for danger signals for public and work areas in the signal reception area and gives guidelines for the design of the signals. It may also be applied to other appropriate situations.</p>
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ICS 13.180, 13.320

Võtmesõnad:

English Version

Ergonomics - Danger signals for public and work areas -
Auditory danger signals (ISO 7731:2003)

Ergonomie - Signaux de danger pour lieux publics et lieux
de travail - Signaux de danger auditifs (ISO 7731:2003)

Ergonomie - Gefahrensignale für öffentliche Bereiche und
Arbeitsstätten - Akustische Gefahrensignale (ISO
7731:2003)

This European Standard was approved by CEN on 2 September 2005.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

The text of ISO 7731:2003 has been prepared by Technical Committee ISO/TC 159 "Ergonomics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 7731:2005 by Technical Committee CEN/TC 122 "Ergonomics", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2006, and conflicting national standards shall be withdrawn at the latest by March 2006.

This document supersedes EN 457:1992.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 7731:2003 has been approved by CEN as EN ISO 7731:2005 without any modifications.

ANNEX ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 98/37 EEC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 98/37 EEC, amended by 98/79/EEC.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

WARNING: Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

**Ergonomics — Danger signals for public
and work areas — Auditory danger
signals**

*Ergonomie — Signaux de danger pour lieux publics et lieux
de travail — Signaux de danger auditifs*



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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 7731 was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 5, *Ergonomics of the physical environment*.

This second edition cancels and replaces the first edition (ISO 7731:1986), which has been technically revised.

Introduction

This International Standard specifies criteria applicable to the recognition of auditory danger signals, especially in cases where there is a high level of ambient noise. It covers auditory danger signals, designated in the text of this standard by the use of the phrase “danger signals”, which apply to emergency signals and warning signals (see Table 1).

Auditory danger signals can also be found in the following International Standards:

- ISO 8201 dealing with emergency evacuation signals;
- ISO 11429 dealing with auditory and visual danger signals.

Various types of danger signals and their responses are described in Table 1.

It should be noted that ISO 11429 covers this subject in greater detail.

Table 1 — Various types of danger signals

Type of danger signal	Response
Auditory emergency evacuation signal	Leave the danger zone immediately
Auditory emergency signal	Take urgent action for rescue or protection
Auditory warning signal	Take preventative or preparatory action

Correctly designed signals can reliably call attention to a hazard or a dangerous situation, even when hearing protection is worn, without causing fright.

Ergonomics — Danger signals for public and work areas — Auditory danger signals

1 Scope

This International Standard specifies the physical principles of design, ergonomic requirements and the corresponding test methods for danger signals for public and work areas in the signal reception area and gives guidelines for the design of the signals. It may also be applied to other appropriate situations.

The relevance given in the definitions as to the difference between an auditory emergency signal, auditory emergency evacuation signal and an auditory warning signal should be noted. The emergency evacuation signal is covered in ISO 8201.

This International Standard does not apply to verbal danger warnings (e.g. shouts, loudspeaker announcements). ISO 9921 covers verbal danger signals.

Special regulations such as those for a public disaster and public transport are not affected by this International Standard.

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

3 Terms, definitions and symbols

For the purposes of this document, the following terms and definitions apply.

NOTE Definitions of symbols referred to in this International Standard are given in Annex A.

3.1

ambient noise

all sounds in the signal reception area not produced by the danger-signal transmitter

3.2

danger signals

depending on the degree of urgency and the possible effect of the danger on people, a distinction is made between three types of auditory danger signals: an auditory emergency signal, an auditory emergency evacuation signal and an auditory warning signal

3.2.1

auditory emergency signal

signal marking the onset and, if necessary, the duration and the end of a dangerous situation