



NSAI
Standards

Irish Standard
I.S. EN ISO 14798:2013

Lifts (elevators), escalators and moving walks - Risk assessment and reduction methodology (ISO 14798:2009)

© CEN 2013

No copying without NSAI permission except as permitted by copyright law.

I.S. EN ISO 14798:2013

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:

This document is based on:
EN ISO 14798:2013

Published:
31 January, 2013

This document was published
under the authority of the NSAI
and comes into effect on:
31 January, 2013

ICS number:
91.140.90

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

I.S. EN ISO 14798:2013

EUROPEAN STANDARD

EN ISO 14798

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2013

ICS 91.140.90

English Version

Lifts (elevators), escalators and moving walks - Risk assessment and reduction methodology (ISO 14798:2009)

Ascenseurs, escaliers mécaniques et trottoirs roulants -
Méthodologie de l'appréciation et de la réduction du risque
(ISO 14798:2009)

Aufzüge, Fahrtreppen und Fahrsteige - Verfahren zur
Risikobeurteilung und -minderung (ISO 14798:2009)

This European Standard was approved by CEN on 24 November 2012.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
----------------------	----------

Foreword

The text of ISO 14798:2009 has been prepared by Technical Committee ISO/TC 178 “Lifts, escalators and moving walks” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 14798:2013 by Technical Committee CEN/TC 10 “Lifts, escalators and moving walks” the secretariat of which is held by AFNOR.

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 July 2013, and conflicting national standards shall be withdrawn at the latest by July 2013.

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

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

Endorsement notice

The text of ISO 14798:2009 has been approved by CEN as a EN ISO 14798:2013 without any modification.

This page is intentionally left BLANK.

I.S. EN ISO 14798:2013
INTERNATIONAL
STANDARD

ISO
14798

First edition
2009-03-01

**Lifts (elevators), escalators and moving
walks — Risk assessment and reduction
methodology**

*Ascenseurs, escaliers mécaniques et trottoirs roulants — Méthodologie
de l'appréciation et de la réduction du risque*



Reference number
ISO 14798:2009(E)

© ISO 2009

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2009

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope	1
2 Terms and definitions	1
3 General principles	3
3.1 Concept of safety	3
3.2 Concept of risk assessment.....	3
4 Risk analysis procedure	5
4.1 Step 1 — Determination of the reason for conducting a risk assessment.....	5
4.2 Step 2 — Formation of a risk assessment team	5
4.3 Step 3 — Determination of the subject of risk assessment and related factors	6
4.4 Step 4 — Identification of scenarios: hazardous situations, causes and effects.....	8
4.5 Step 5 — Risk estimation.....	9
5 Step 6 — Risk evaluation.....	15
6 Step 7 — Has the risk been sufficiently mitigated?	15
7 Step 8 — Reduction of risk — Protective measures.....	16
8 Documentation	17
Annex A (normative) Risk assessment template.....	18
Annex B (informative) Quick references to hazards (Table B.1), hazardous situations (Table B.2), causes (Table B.3), effects (Table B.4) and harm (Table B.5)	20
Annex C (normative) Estimation of risk elements — Severity (Table C.1) and probability (Table C.2)	25
Annex D (normative) Risk estimation and evaluation.....	26
Annex E (informative) Role of the team moderator	28
Annex F (informative) Examples of a risk assessment and protective measures	32
Bibliography.....	38

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 14798 was prepared by Technical Committee ISO/TC 178, *Lifts, escalators and moving walks*.

This first edition of ISO 14798 cancels and replaces ISO/TS 14798:2006, which has been technically revised.

Introduction

The objective of this International Standard is to describe principles and set procedures for a consistent and systematic risk assessment methodology relevant to lifts (elevators), escalators, moving walks ("lifts", for short). The risk analysis and assessment principles and process described in this International Standard may, however, be used for assessment of risk relevant to equipment other than lifts.

This risk assessment methodology is a tool used to identify risk of harm resulting from various hazards, hazardous situations and harmful events. Knowledge and experience of the design, use, installation, maintenance, incidents, accidents and related harm are brought together in order to assess the risk during all phases of the life of lifts¹⁾ (elevators), escalators and moving walks (hereafter referred to as "lifts"), from design and construction up to decommissioning. The users of the methodology do not make medical judgements but, rather, evaluate events that can possibly lead to levels of harm defined in this International Standard. By itself, this International Standard does not provide a presumption of conformity to any safety requirements for lifts, including those noted in Clause 1.

NOTE Risk assessment is not an exact science, as there is a certain degree of subjectivity in the process.

It is recommended that this International Standard be incorporated into training courses and manuals so as to provide basic instructions on safety aspects to those involved in

- a) assessing designs, operations, testing and use of lift equipment, and
- b) writing of specifications or standards incorporating safety requirements for lifts.

This International Standard describes a qualitative methodology for risk assessment that relies very much on the judgement and deliberations of the members of the risk assessment team who carry out the assessment. To ensure the most realistic and consistent assessment, it is essential that the methodology be followed faithfully. Aids such as numeric methods of assessment that follow the format described in this International Standard are not precluded from use. It should, however, be recognized that numeric aids to qualitative methods may still retain some of the subjectivity inherent in the qualitative process.

Clause 3 describes the concepts of safety and risk assessment. Clause 4 describes the procedure of risk analysis, including risk estimation. The procedure for risk evaluation is set out in Clause 5 and assessment in Clause 6. Clause 7 deals with protective measures. Clause 8 specifies relevant documentation.

1) Hereafter in this International Standard, the term "lift" is used instead of the term "elevator". In addition, the term "lift" is also used instead of the terms "lifts, escalators and moving walks".

I.S. EN ISO 14798:2013

Lifts (elevators), escalators and moving walks — Risk assessment and reduction methodology

1 Scope

This International Standard establishes general principles and specific procedures for assessing risk.

The purpose of this International Standard is to provide a process for making decisions relevant to the safety of lifts during the

- a) design, construction, installation and servicing of lifts, lift components and systems,
- b) development of generic procedures for the use, operation, testing, compliance verification and servicing of lifts, and
- c) development of technical specifications and standards affecting the safety of lifts.

While examples in this International Standard refer primarily to risks of harm to persons, the risk assessment procedure set out in this International Standard can be equally effective for assessing other types of risk relevant to lifts, such as the risk of damage to property and environment.

2 Terms and definitions

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

2.1

cause

circumstance, condition, event or action that in a hazardous situation contributes to the production of an effect

2.2

effect

result of a cause in the presence of a hazardous situation

2.3

harm

physical injury or damage to the health of people, or damage to property or the environment

[ISO/IEC Guide 51:1999, 3.3]

2.4

harmful event

occurrence in which a hazardous situation results in harm

[ISO/IEC Guide 51:1999, 3.4]

NOTE In this International Standard, the term “harmful event” is interpreted as a combination of cause and effect.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-