



Lifts, escalators and moving walks

Part 19: Safety rule for the construction and installation of lifts — Lifts for the transport of persons and goods — Remote alarm on passenger and goods passenger lifts



AS 1735.19:2019

This Australian Standard® was prepared by ME-004, Lift Installations. It was approved on behalf of the Council of Standards Australia on 09 October 2019.

This Standard was published on 29 November 2019.

The following are represented on Committee ME-004:

- Association of Consultants in Access Australia
- Australasian Fire and Emergency Service Authorities Council
- Australian Building Codes Board
- Australian Chamber of Commerce and Industry
- Australian Elevator Association
- Australian Industry Group
- Communications, Electrical and Plumbing Union — Electrical Trades Division
- Engineers Australia
- Lift Engineering Society of Australia
- Property Council of Australia

This Standard was issued in draft form for comment as DR AS 1735.19:2019.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au

ISBN 978 1 76072 612 6



Lifts, escalators and moving walks

Part 19: Safety rule for the construction and installation of lifts — Lifts for the transport of persons and goods — Remote alarm on passenger and goods passenger lifts

First published as AS 1735.19:2019.

COPYRIGHT

© CEN 2019 — All rights reserved
© Standards Australia Limited 2019

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

Preface

This Standard was prepared by the Standards Australia Committee ME-004, Lift Installations.

The objective of this Standard is to specify requirements for alarm systems for all types of passenger and goods passenger lifts. This Standard also deals with the minimum information to be provided as part of the instruction manual related to maintenance and the rescue service.

This Standard covers the significant hazard relevant to lifts when they are used as intended and under the conditions foreseen by the installer/manufacture, i.e. entrapment of users due to the lift not working properly.

This Standard is not applicable to alarm systems intended to be used to call for help in other cases, e.g. heart attack, seeking information.

This Standard is identical with, and has been reproduced from, *EN 81-28:2018+AC:2019, Safety rules for the construction and installation of lifts – Lifts for the transport of persons and goods – Part 28: Remote alarm on passenger and goods passenger lifts*

As this document has been reproduced from an International Standard, the following applies:

- (a) In the source text “this European Standard” should read “this Australian Standard”.
- (b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

NOTES

Contents

Page

| | |
|--|-----------|
| European foreword | 4 |
| Introduction | 5 |
| 1 Scope | 6 |
| 2 Normative references | 6 |
| 3 Terms and definitions | 6 |
| 4 Safety requirements and/or protective measures | 8 |
| 4.1 General | 8 |
| 4.1.1 Introduction | 8 |
| 4.1.2 Alarms | 8 |
| 4.1.3 End of alarm | 8 |
| 4.1.4 Emergency electrical power supply | 8 |
| 4.1.5 Information in the lift car | 9 |
| 4.1.6 Alarm filtering | 10 |
| 4.1.7 Identification | 11 |
| 4.1.8 Communication | 11 |
| 4.2 Technical characteristics | 11 |
| 4.2.1 Availability / reliability | 11 |
| 4.2.2 Electrical interface | 11 |
| 4.2.3 Alarm initiation device | 11 |
| 4.2.4 Accessibility to alarm equipment | 11 |
| 4.2.5 Modification of parameters | 12 |
| 5 Information | 12 |
| 5.1 Information to be provided with the alarm system | 12 |
| 5.2 Information to be provided with the lift | 12 |
| 5.3 Information to be provided by the owner of the installation to the rescue service | 12 |
| 6 Verification of the safety requirements and/or protective measures | 13 |
| 6.1 Technical compliance documentation | 13 |
| 6.2 Verification of design | 13 |
| 6.3 Examinations and tests before putting into service | 15 |
| 6.3.1 General | 15 |
| 6.3.2 Alarm (4.1.2) | 15 |
| 6.3.3 End of alarm (4.1.3) | 15 |
| 6.3.4 Emergency electrical power supply (4.1.4), if applicable | 15 |
| 6.3.5 Information in the lift car (4.1.5) | 15 |
| 6.3.6 Communication (4.1.8) | 15 |
| 7 Marking | 16 |
| Annex A (normative) Typical 2-way communication between lift(s) and rescue service | 17 |
| Annex B (informative) General information for the operation of rescue services | 18 |
| B.1 General | 18 |
| B.2 Operation | 18 |
| B.3 Response time | 18 |
| B.4 Identification | 19 |
| B.5 Communication | 19 |

| | | |
|--|------------------------------|-----------|
| B.6 | Back-up service | 19 |
| B.7 | Testing..... | 19 |
| B.8 | Training..... | 19 |
| Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2014/33/EU aimed to be covered | | 20 |
| Bibliography | | 21 |

European foreword

This document (EN 81-28:2018+AC:2019) has been prepared 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 November 2018 and conflicting national standards shall be withdrawn at the latest by AC May 2020 AC.

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

This document supersedes EN 81-28:2003.

This document includes Corrigendum 1 issued by CEN on 23 January 2019 to correct the date of withdrawal in the European foreword.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags AC AC.

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.

The following changes have been implemented in this new edition:

- a) the general update of the standard to delete references to EN 81-1 and EN 81-2 and replace them with references to EN 81-20;
- b) the indication of the status of any battery used for alarm operation and its correct charging;
- c) the sound levels for the alarm system and their range of adjustment;
- d) the indication, at the lift car, of failure of the alarm system to be able to communicate with the rescue service.

This document is part of the EN 81 series of standards *Safety rules for the construction and installation of lifts*.

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard is a type C standard as stated in EN ISO 12100. This standard has been prepared to be a harmonized standard to provide one means of conforming to the essential safety requirements of the Lift Directive.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of the standard.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards for lifts that have been designed and built according to the provisions of this type C standard.

While drafting this standard it was assumed that:

- 1) the communication network (see Annex A) does not fail including mobile network signal strength or similar;
- 2) the power supply network failure does not occur so that all the lifts in a geographical area do not create entrapment simultaneously;
- 3) this standard is used in conjunction with the corresponding standards of the EN 81 series.

This European Standard also provides general information about the service provided by a rescue organization.

1 Scope

This European Standard applies to alarm systems for all types of passenger and goods passenger lifts, in particular those covered in the EN 81 series.

This European Standard also deals with the minimum information to be provided as part of the instruction manual related to maintenance and the rescue service.

This European Standard deals with the following significant hazard relevant to lifts when they are used as intended and under the conditions foreseen by the installer/manufacturer:

- entrapment of users due to the lift not working properly.

This European Standard is not applicable to alarm systems intended to be used to call for help in other cases, e.g. heart attack, seeking information.

This European Standard is applicable to alarm systems used for lifts manufactured and installed after the date of publication by CEN of this standard. However, this European Standard can be taken into account when applied to existing lifts.

EN 81-70 gives additional requirements for persons with disabilities (e.g. inductive loop, alarm button).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 81-20:2014, *Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods - Part 20: Passenger and goods passenger lifts*

EN 13015:2001+A1:2008, *Maintenance for lifts and escalators - Rules for maintenance instructions*

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

ISO 4190-5:2006, *Lift (Elevator) installation - Part 5: Control devices, signals and additional fittings*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 81-20:2014, EN 13015:2001+A1:2008 and EN ISO 12100:2010 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 alarm

status between the validation as true alarm and the end of the alarm