SLOVENSKI STANDARD
SIST EN 81-28:2018+AC:2019

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Nadomešča:
SIST EN 81-28:2018

Varnostna pravila za konstruiranje in vgradnjo dvigal (liftov) - Dvigala za prevoz oseb in blaga - 28. del: Alarmi v osebnih in osebno-tovornih dvigalih

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

Sicherheitsregeln für die Konstruktion und den Einbau von Aufzügen - Aufzüge für den Personen- und Gütertransport - Teil 28: Fern-Notruf für Personen- und Lastenaufzüge

Règles de sécurité pour la construction et l'installation des élévateurs - Élévateurs pour le transport de personnes et d'objets - Partie 28 : Téléalarme pour ascenseurs et ascenseurs de charge

Ta slovenski standard je istoveten z: **EN 81-28:2018+AC:2019**

ICS:

13.320	Alarmni in opozorilni sistemi	Alarm and warning systems
91.140.90	Dvigala. Tekoče stopnice	Lifts. Escalators

SIST EN 81-28:2018+AC:2019 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 81-28:2018+AC

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English Version

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

Règles de sécurité pour la construction et l'installation des élévateurs - Élévateurs pour le transport de personnes et d'objets - Partie 28 : Téléalarme pour ascenseurs et ascenseurs de charge

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This European Standard was approved by CEN on 15 February 2018 and includes the Corrigendum issued by CEN on 23 January 2019.

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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.

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

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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

3.2
acknowledgement
information issued by the rescue service destined for the alarm equipment in order to inform it that the alarm has been taken into account

3.3
alarm equipment
part of the alarm system able to detect, identify, validate as true alarm and initiate 2-way communication

Note 1 to entry: The alarm equipment is part of the lift.

3.4
end of alarm
information issued by the alarm system and destined for the rescue service in order to inform it that the entrapment situation is ended

3.5
alarm initiation device
device intended for users trapped in the lift installation in order to call for external assistance, exemplified in Annex A

3.6
alarm system
combination of alarm initiation device(s) and alarm equipment exemplified in Annex A

3.7
human response
response performed directly by a person of the rescue service via the alarm system

3.8
reception equipment
equipment outside of the lift (e.g. at the rescue service) capable of handling alarm information and 2-way communication exemplified in Annex A

3.9
rescue service
organization in charge of receiving alarm information and rescuing users trapped in the lift installation, exemplified in Annex A

Note 1 to entry: A rescue service can be part of the maintenance organization.

Note 2 to entry: See Annex B.

3.10
transmitter
part of a 2-way communication system which sends voice and data to the reception equipment exemplified in Annex A

3.11
owner of the installation
natural or legal person who has the power of disposal of the installation and takes the responsibility for its operation and use including rescuing from entrapment

3.12
installer
legal or natural person taking responsibility to erect and commission the lift at its final location in the building including the alarm system

3.13
manufacturer of the alarm system
natural or legal person who takes responsibility for the design and manufacture of the alarm system

4 Safety requirements and/or protective measures

4.1 General

4.1.1 Introduction

Alarm systems shall comply with the safety requirements and/or protective measures of Clause 4.

In addition, alarm systems shall be designed according to the principles of EN ISO 12100 for hazards relevant but not significant which are not dealt with by this document.

4.1.2 Alarms

The alarm equipment shall ensure that subject to 4.1.6 alarm filtering, the full alarm information (see 4.1.7) will be emitted until acknowledgement, even during maintenance.

If an emission fails before acknowledgement, the delay between re-emission(s) shall be reduced to the minimum compatible with the communication network.

Where the characteristics of the communication network require (see EN 81-20:2014, 0.4.2 e)) and if the communication is interrupted any re-emission after acknowledgement shall not be impeded by the alarm equipment. The alarm system shall be able to accept communication from the rescue service until the end of the alarm has occurred.

Emission of the alarm information to the transmitter shall not be delayed, except during alarm filtering.

Between the acknowledgement and the end of alarm, any alarm filtering shall be bypassed.

After acknowledgement, if the communication is interrupted, the alarm equipment shall stop automatic re-emission.

4.1.3 End of alarm

Means shall be provided to enable indication, from the alarm system to the rescue service, that the alarm has been dealt with and no user is trapped in the lift.

The end of alarm shall be initiated from the lift installation to which the alarm belongs. The means to initiate the end of alarm shall be accessible only to competent persons.

Remote resetting of the alarm equipment shall be possible.

4.1.4 Emergency electrical power supply

Any alarm shall not be impeded or lost even in cases of electrical power supply switching or power supply failure.

Where an emergency electrical power supply is used, means shall be provided to automatically inform the rescue service and to indicate at the installation of the failure of the emergency electrical power supply. This is considered to occur whenever the emergency electrical power supply is incapable of holding sufficient capacity to provide one hour of function of the alarm system including 15 minutes voice communication.

If the transmitter is integrated in the alarm system (e.g. GSM-module), the requirements of the standard regarding the emergency electrical power supply apply to the transmitter.

4.1.5 Information in the lift car

The alarm system shall be equipped with visible and audible signals, integrated in or above the car operating panel, consisting of:

a) a yellow graphical symbol in accordance with ISO 4190-5:2006, Table C.1, No 1, illuminated when an alarm has been validated as a true alarm, i.e. after the end of filtering, until the end of alarm;

b) an audible signal with a sound pressure level at 1m from the source between 35 dB(A) and 65 dB(A) adjustable to suit the site conditions when an alarm has been validated as a true alarm, i.e. after the end of filtering, until the voice communication is established. The acoustic signal is not required to be continuous;

c) a green graphical symbol in accordance with ISO 4190-5:2006, Table C.1, No 8., illuminated during voice communication.

See Figure 1 which clarifies the operation of the visible and audible signals.