



SLOVENSKI STANDARD

SIST EN 81-28:2004

01-april-2004

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

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

[SIST EN 81-28:2004](https://standards.iteh.ai/catalog/standards/sist/5fb35aaa-c0ce-44d7-b87a-53738bcf8d87/sist-en-81-28-2004)

[https://standards.iteh.ai/catalog/standards/sist/5fb35aaa-c0ce-44d7-b87a-](https://standards.iteh.ai/catalog/standards/sist/5fb35aaa-c0ce-44d7-b87a-53738bcf8d87/sist-en-81-28-2004)

[53738bcf8d87/sist-en-81-28-2004](https://standards.iteh.ai/catalog/standards/sist/5fb35aaa-c0ce-44d7-b87a-53738bcf8d87/sist-en-81-28-2004)

Ta slovenski standard je istoveten z: EN 81-28:2003

ICS:

13.320	Alarmni in opozorilni sistemi	Alarm and warning systems
91.140.90	Öçä aqÄV^[^Áç] } &^	Lifts. Escalators

SIST EN 81-28:2004

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 81-28:2004

<https://standards.iteh.ai/catalog/standards/sist/5fb35aaa-c0ce-44d7-b87a-53738bcf8d87/sist-en-81-28-2004>

EUROPEAN STANDARD

EN 81-28

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2003

ICS 13.320; 91.140.90

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 ascenseurs - Elévateurs pour le transport de personnes et d'objets - Partie 28: Téléalarme pour ascenseurs et ascenseurs de charge

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

This European Standard was approved by CEN on 13 February 2003.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

	Page
Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions.....	5
4 Safety requirements and/or protective measures	7
4.1 General.....	7
4.1.1 Alarms	7
4.1.2 End of alarm	7
4.1.3 Emergency electrical power supply.....	7
4.1.4 Information in the lift car.....	7
4.1.5 Alarm filtering.....	8
4.1.6 Identification.....	8
4.1.7 Communication.....	8
4.2 Technical characteristics.....	8
4.2.1 Availability / reliability	8
4.2.2 Electrical interface	8
4.2.3 Alarm initiation device.....	8
4.2.4 Accessibility to alarm equipment.....	8
4.2.5 Modification of parameters.....	9
5 Information	9
5.1 Information to be provided with the alarm system.....	9
5.2 Information to be provided with the lift	9
5.3 Information to be provided by the owner of the installation to the rescue service.....	9
6 Test before putting into service	10
7 Marking, notices.....	10
Annex A (normative) Typical 2-way communication between lift(s) and rescue service.....	11
Annex B (informative) General information for the operation of rescue services.....	12
B.1 General.....	12
B.2 Operation	12
B.3 Response time.....	12
B.4 Identification.....	13
B.5 Communication	13
B.6 Back-up service.....	13
B.7 Periodic testing	13
B.8 Training.....	13
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives.....	14
Bibliography	15

Foreword

This document (EN 81-28:2003) has been prepared by Technical Committee CEN/TC 10, "Passenger, goods and service lifts", 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 December 2003, and conflicting national standards shall be withdrawn at the latest by December 2003.

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.

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

Annex A is normative.

Annex B is informative.

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

<https://standards.iteh.ai/catalog/standards/sist/5fb35aaa-c0ce-44d7-b87a-53738bcf8d87/sist-en-81-28-2004>

Introduction

This European Standard is a type C standard as stated in EN 1070. This standard has been prepared to be a harmonised 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.
- 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 EN 81 series.

This standard also provides general information about the level of service provided by a rescue organisation.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 81-28:2004](https://standards.iteh.ai/catalog/standards/sist/5fb35aaa-c0ce-44d7-b87a-53738bcf8d87/sist-en-81-28-2004)

<https://standards.iteh.ai/catalog/standards/sist/5fb35aaa-c0ce-44d7-b87a-53738bcf8d87/sist-en-81-28-2004>

1 Scope

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

This standard also deals with the minimum information given to the owner of the installation related to maintenance and rescue service.

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

EN 81-70 gives additional requirements for persons with disabilities.

This standard supersedes EN 81-1:1998 and EN 81-2:1998 with regard to remote alarm (clause 14.2.3).

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 81-1:1998, *Safety rules for the construction and installation of lifts — Part 1: Electric lifts.*

EN 81-2:1998, *Safety rules for the construction and installation of lifts — Part 2: Hydraulic lifts.*

EN 81-70:2003, *Safety rules for the construction and installations of lifts – Part 70: Particular applications for passenger and good passenger lifts – Accessibility to lifts for persons including persons with disability.*

EN 292-1, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology.*

EN 292-2, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles and specifications.*

EN 1070:1998, *Safety of machinery — Terminology.*

EN 13015:2001, *Maintenance for lifts and escalators – Rules for maintenance instructions.*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 81-1:1998 and EN 81-2:1998 and EN 1070:1998 apply as well as the following additional definitions:

3.1

alarm

status between the activation of the alarm initiating device 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. 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(s) intended for users trapped in the 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(s) 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**

organisation in charge of receiving alarms information and rescuing users trapped in the installation, exemplified in annex A. A rescue service can be part of the maintenance organisation. See annex B

**3.10
transmitter**

part of a 2-way communication between the alarm system and 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 of trapped users

**3.12
installer**

natural or legal person who takes responsibility for the installation of the lift(s) including the alarm system

**3.13
manufacturer of the alarm system**

natural or legal person who takes responsibility for the design, manufacture and placing alarm systems on the market

**3.14
installation**

completely installed passenger lift or passenger goods lift including alarm system(s)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 81-28:2004
<https://standards.iteh.ai/catalog/standards/sist/51b35aaa-c0ce-44d7-b87a-53738bcf8d87/sist-en-81-28-2004>

3.15**maintenance organisation**

company or part of company where competent maintenance person(s) carry out maintenance operations on behalf of the owner of the installation

4 Safety requirements and/or protective measures**4.1 General**

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 292-1 and EN 292-2 for hazards relevant but not significant which are not dealt with by this document (e.g. sharp edges).

4.1.1 Alarms

The alarm equipment shall ensure that subject to 4.1.5 alarm filtering, the full alarm information (see 4.1.6) 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 (see EN 81-1:1998, 0.2.5 and EN 81-2:1998, 0.2.5).

Where the characteristics of the communication network require (see EN 81-1:1998, 0.2.5 and EN 81-2:1998, 0.2.5) 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 filtering.

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

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

4.1.2 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 only be initiated from the installation to which the alarm belongs. The means to initiate the end of alarm shall be out of the reach of any non competent person.

Provision shall be made that the alarm equipment allows for remote resetting.

4.1.3 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 a rechargeable emergency electrical power supply is used, means shall be provided to inform automatically the rescue service as soon as the capacity is lower than needed to provide one hour of function of the alarm system.

4.1.4 Information in the lift car

A visible and audible signal shall correspond with the requirement of EN 81-70:2003, 5.4.4.3 and inform the passenger(s) that the initiated alarm has been validated as a true alarm.