



**SLOVENSKI STANDARD**  
**SIST EN 12929-1:2015/oprA1:2020**  
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**Varnostne zahteve za žičniške naprave za prevoz oseb - Splošne zahteve - 1. del:  
Zahteve za vse naprave**

Safety requirements for cableway installations designed to carry persons - General requirements - Part 1 Requirements for all installations

Sicherheitsanforderungen an Seilbahnen für die Personenbeförderung - Allgemeine Bestimmungen - Teil 1: Anforderungen an alle Anlagen

Prescriptions de sécurité pour les installations à câbles destinées à transporter des personnes - Dispositions générales - Partie 1 : Prescriptions applicables à toutes les installations

<https://standards.iteh.ai/catalog/standards/sist/b745ebed-9a1e-4575-a304-d7f86351e090/sist-en-12929-1-2015-opra1-2020>

**Ta slovenski standard je istoveten z: EN 12929-1:2015/prA1**

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**ICS:**

45.100            Oprema za žičnice            Cableway equipment

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**EN 12929-1:2015**  
**prA1**

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ICS 45.100

English Version

## Safety requirements for cableway installations designed to carry persons - General requirements - Part 1: Requirements for all installations

Prescriptions de sécurité pour les installations à câbles destinées à transporter des personnes - Dispositions générales - Partie 1 : Prescriptions applicables à toutes les installations

Sicherheitsanforderungen an Seilbahnen für die Personenbeförderung - Allgemeine Bestimmungen - Teil 1: Anforderungen an alle Anlagen

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 242.

This draft amendment A1, if approved, will modify the European Standard EN 12929-1:2015. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>	<b>Page</b>
1 Changes to the foreword (to the German version).....	3
2 Amendment to Section 1, Scope ( <i>in the German version only</i> ) .....	4
3 Amendment to Section 2, Normative references .....	5
4 Amendment to 4.2, Exceptions.....	5
5 Amendment to 4.3.1, General safety principles .....	5
6 Amendment to 4.3.3, Hazardous situations.....	5
7 Amendment to 6.3.3, Vertical deviation of the ropes ( <i>in the English version only</i> ) .....	6
8 Amendment to 6.3.3, Vertical deviation of the ropes.....	6
9 Amendment to 6.3.4, Transverse sway of the carriers ( <i>in the English version only</i> ) .....	6
10 Amendment to 6.4.5, Rotation of platters, T-bars or rods .....	7
11 Amendment to 9.2, Maximum operating speeds of funicular railways and aerial ropeways .....	7
12 Amendment to 10.1, Drive system for funicular railways and aerial ropeways ( <i>in the German version only</i> ) .....	8
13 Amendment to 10.1, Drive system for funicular railways and aerial ropeways ( <i>in the German version only</i> ) .....	8
14 Amendments to 10.2, Braking systems of funicular railways and aerial ropeways.....	8
15 Amendment to 11.1, General .....	9
16 Amendment to 13.1, General ( <i>in the German version only</i> ).....	9
17 Amendments to Appendix D, A-deviations .....	9
18 Amendments to Appendix ZA .....	9
Anhang ZA (informative) Relationship between this European Standard and the fundamental requirements of the regulation covered, Regulation (EU) 2016/424 .....	10
19 Amendments to "Bibliography" .....	11

## 1 Changes to the foreword (to the German version)

*The first four paragraphs should read:*

"This document (EN 12929-1:2015/prA1:2020) was prepared by Technical Committee CEN/TC 242 "Safety requirements for cableway installations designed to carry persons", the secretariat of which is held by AFNOR (*Association Française de Normalisation* — the French national organisation for standardisation).

This document has been submitted for the purposes of the CEN (*Comité Européen de Normalisation* — European Committee for Standardization) enquiry.

This document was prepared under a mandate given to the CEN by the European Commission and the European Free Trade Association (EFTA) and facilitates the essential requirements **of Regulation (EU) 2016/424**.

For the context of **Regulation (EU) 2016/424** see informative Appendix ZA, which forms an integral part of this document."

*Taking into account that in the scope of application of the German version of Regulation (EU) 2016/424 reference is now made to "Beförderung von Personen" (carriage of passengers) rather than "von Personenverkehr" (passenger transport) and taking into account the newly harmonised EN 17064 and that EN 12927 now only consists of one part, replace the last section (paragraphs 8 to 12) (in the German version only):*

"EN 12929 consists of the following parts, with the main title "Safety requirements for cableway installations designed to carry persons — General requirements":

- Part 1: Requirements for all installations;
- Part 2: Additional requirements for reversible bicable aerial ropeways without carrier truck brakes.

Part 1 deals with general requirements that apply to all cableway installations designed to carry persons. Part 2 deals with additional requirements that apply to reversible bicable aerial ropeways without carrier truck brakes.

This European standard forms part of a series of European standards on safety requirements for cableway installations designed to carry persons. This series of standards consists of the following parts:

- EN 1907 on Terminology
- EN 12929 (all parts) on General requirements
- EN 12930 on Calculations
- EN 12927 (all parts) about Ropes
- EN 1908 on Tensioning devices
- EN 13223 on Drive systems and other mechanical equipment
- EN 13796 (all parts) about Carriers
- EN 13243 on Electrical equipment other than for drive systems
- EN 13107 on Civil engineering works
- EN 1709 on Precommissioning inspection and instructions for maintenance and operational inspection and checks
- EN 1909 on Recovery and evacuation
- EN 12397 on Operation
- EN 12408 on Quality control

**EN 12929-1:2015/prA1:2020 (E)**

All of these standards form a single package for the planning, manufacture, assembly, maintenance and operation of cableway installations designed to carry persons.

With regard to ski-tows, the work carried out by the International Organisation for Transportation by Rope (*Organizzazione Internazionale Trasporti a Fune* — OITAF) was taken into account when writing this document."

with:

"EN 12929 consists of the following parts, with the main title "Safety requirements for cableway installations designed to **carry persons** — General requirements":

- Part 1: Requirements for all installations;
- Part 2: Additional requirements for reversible bicable aerial ropeways without carrier truck brakes.

Part 1 deals with the general requirements that apply to all cableway installations designed to **carry persons**. Part 2 deals with additional requirements that apply to reversible bicable aerial ropeways without carrier truck brakes.

This European standard forms part of a series of European standards on safety requirements for cableway installations designed to **carry persons**. This series of standards consists of the following parts:

- EN 1907 Terminology
- EN 12929 General requirements
- EN 12930 Calculations
- **EN 12927 Ropes**
- EN 1908 Tensioning devices
- EN 13223 Drive systems and other mechanical equipment
- EN 13796 (all parts) Carriers
- EN 13243 Electrical equipment other than for drive systems
- EN 13107 Civil engineering works
- EN 1709 Precommissioning inspection and instructions for maintenance and operational inspection and checks
- EN 1909 Recovery and evacuation
- EN 12397 Operation
- EN 12408 Quality control
- **EN 17064 Prevention and fight against fire**

All of these standards form a single package for the planning, manufacture, assembly, maintenance and operation of cableway installations designed to **carry persons**.

With regard to ski-tows, the work carried out by the International Organisation for Transportation by Rope (*Organizzazione Internazionale Trasporti a Fune* — OITAF) was taken into account when writing this document."

## **2 Amendment to Section 1, Scope (in the German version only)**

To take into account the fact that the scope of the German version of Regulation (EU) 2016/424 now refers to "Beförderung von Personen" instead of "Personenverkehr", replace the first paragraph (**in the German version only**):

"This European standard sets out the general requirements regarding the safety requirements for cableway installations designed to carry persons. Additional requirements for reversible bicable aerial ropeways without carrier truck brakes are set out in EN 12929-2."

with:

"This European standard sets out the general requirements regarding the safety requirements for cableway installations designed to **carry persons**. Additional requirements for reversible bicable aerial ropeways without carrier truck brakes are set out in EN 12929-2."

### 3 Amendment to Section 2, Normative references

To take into account the newly harmonised EN 17064 and that reference is made to it in 4.1, add:

"**EN 17064**, Safety requirements for cableway installations designed to carry persons — Prevention and fight against fire".

### 4 Amendment to 4.2, Exceptions

To take into account the newly harmonised EN 17064 and that EN 12927 consists of only one part, replace sub-section:

"**4.2.1** Exceptions to the requirements of standards EN 1709, EN 1908, EN 1909, EN 12385-8, EN 12385-9, EN 12397, EN 12927 (all parts), EN 12929-1, EN 12929-2, EN 12930, EN 13107, EN 13223, EN 13243, EN 13796 (all parts) are possible, in particular in the case of innovations. These exceptions must be justified by means of a safety analysis and at least an equivalent level of safety must be achieved."

with:

"**4.2.1** Exceptions to the requirements of standards EN 1709, EN 1908, EN 1909, EN 12385-8, EN 12385-9, EN 12397, **EN 12927**, EN 12929-1, EN 12929-2, EN 12930, EN 13107, EN 13223, EN 13243, EN 13796 (all parts), **EN 17064** are possible, in particular in the case of innovations. These exceptions must be justified by means of a safety analysis and at least an equivalent level of safety must be achieved."

### 5 Amendment to 4.3.1, General safety principles

To take into account the newly harmonised EN 17064 and that EN 12927 consists of only one part, replace the last paragraph in 4.3.1:

"For installations or components that comply with EN 1709, EN 1908, EN 1909, EN 12397, EN 12927 (all parts), EN 12929 (all parts), EN 12930, EN 13107, EN 13223, EN 13243, EN 13796 (all parts), compliance with these safety principles can be assumed."

with:

"For installations or components that comply with EN 1709, EN 1908, EN 1909, EN 12397, **EN 12927**, EN 12929 (all parts), EN 12930, EN 13107, EN 13223, EN 13243, EN 13796 (all parts), **EN 17064**, compliance with these safety principles can be assumed."

### 6 Amendment to 4.3.3, Hazardous situations

For clarification, replace the last paragraph in 4.3.3:

"Chain reactions as a result of an event occurring must be taken into account. On the other hand, the simultaneous occurrence of two independent hazardous situations may be overlooked."

with:

"Chain reactions as a result of an event occurring must be taken into account. On the other hand, the simultaneous occurrence of two **or more** independent hazardous situations may be overlooked."

**EN 12929-1:2015/prA1:2020 (E)****7 Amendment to 6.3.3, Vertical deviation of the ropes (in the English version only)**

*The layout of the numbering under a) points 1)–6) does not match the German reference version. Therefore, replace: "*

- 1) the imposed load of the carriers;
- 2) the dynamic effects of starting and when braking;
- 3) the working area of regulated tensioning devices."

*with: "*

- 1) the imposed load of the carriers;
- 2) the dynamic effects of starting and when braking;
- 3) the working area of regulated tensioning devices."

**8 Amendment to 6.3.3, Vertical deviation of the ropes**

*The list given under points 4)–6) is not a continuation of 1)–3), but is a separate list. Therefore, replace: "*

- 4) in the case of track ropes at least  $\pm 10\%$ ;
- 5) in the case of haul ropes, at least  $\pm 20\%$ ;
- 6) in the case of carrying-hauling ropes at least  $\pm 25\%$ ."

*with: "*

- in the case of track ropes at least  $\pm 10\%$ ;
- in the case of haul ropes at least  $\pm 20\%$ ;
- in the case of carrying-hauling ropes at least  $\pm 25\%$ ."

**9 Amendment to 6.3.4, Transverse sway of the carriers (in the English version only)**

*The layout of the numbering under a) points 1)–4) does not match the German reference version. Therefore, replace: "*

- a) for closed carriers
  - 1) without taking into consideration a hand area: 0.34 rad;
  - 2) with a hand area to be taken into consideration (if applicable): 0.30 rad;

Relative to line structures, by applying guides the value of the transverse sway can be restricted to the following values (if necessary, whilst taking into consideration the hand area), if the carrier

- 3) is unaccompanied:
  - i) at speeds in excess of 5.0 m/s: 0.25 rad;
  - ii) at speeds up to max. 5.0 m/s: 0.20 rad;



- 1) is attended and a standstill of the installation or a reduction in the speed of the carrier is possible at any time:
  - i) at speeds in excess of 7.0 m/s: 0.15 rad;
  - ii) at speeds up to max. 7.0 m/s: 0.12 rad;"

with: "

a) for closed carriers

- 1) without taking into consideration a hand area: 0.34 rad;
- 2) with a hand area to be taken into consideration (if applicable): 0.30 rad;

Relative to line structures, by applying guides the value of the transverse sway can be restricted to the following values (if necessary, whilst taking into consideration the hand area), if the carrier

- 3) is unaccompanied:
  - i) at speeds in excess of 5.0 m/s: 0.25 rad;
  - ii) at speeds up to max. 5.0 m/s: 0.20 rad;
- 4) is attended and a standstill of the installation or a reduction in the speed of the carrier is possible at any time:
  - i) at speeds in excess of 7.0 m/s: 0.15 rad;
  - ii) at speeds up to max. 7.0 m/s: 0.12 rad;"

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## 10 Amendment to 6.4.5, Rotation of platters, T-bars or rods

*As the last sentence has not always been understood, the last clause of 6.4.5:*

"Additional clearance of 2 m needs to be taken into account for the retractable devices."

*is, for clarification purposes, to be replaced by:*

"In the case of towing devices with a retractable device, a semi-circular clearance over the hoisting rope with a radius of 2 m needs to be taken into account for this purpose."

## 11 Amendment to 9.2, Maximum operating speeds of funicular railways and aerial ropeways

*Clause in 9.2.7 inaccurately describes the desired measure. Therefore, replace clause in 9.2.7:*

"9.2.7 Deactivating one or more safety devices (return trip) must automatically limit the operating speed to a maximum of 1.5 m/s."

with:

"9.2.7 Deactivating one or more safety devices must automatically limit the operating speed to a maximum of 1.5 m/s."

While the safety devices are deactivated, only the evacuation of the aerial ropeway (usually with additional alternative measures) may be carried out."