



SLOVENSKI STANDARD

SIST EN 12275:2013

01-julij-2013

Nadomešča:
SIST EN 12275:2000

Gorniška oprema - Vponke - Varnostne zahteve in preskusne metode

Mountaineering equipment - Connectors - Safety requirements and test methods

Bergsteigerausrüstung - Karabiner - Sicherheitstechnische Anforderungen und Prüfverfahren

Equipement d'alpinisme et d'escalade - Connecteurs - Exigences de sécurité et méthodes d'essai

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Ta slovenski standard je istoveten z: EN 12275:2013

ICS:

97.220.40	Oprema za športe na prostem in vodne športe	Outdoor and water sports equipment
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12275

April 2013

ICS 97.220.40

Supersedes EN 12275:1998

English Version

Mountaineering equipment - Connectors - Safety requirements and test methods

Équipement d'alpinisme et d'escalade - Connecteurs -
Exigences de sécurité et méthodes d'essai

Bergsteigerausrüstung - Karabiner - Sicherheitstechnische
Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 9 February 2013.

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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 12275:2013) has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational facilities and equipment", the secretariat of which is held by DIN.

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 October 2013, and conflicting national standards shall be withdrawn at the latest by October 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

This document supersedes EN 12275:1998.

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 main changes compared to the previous edition are:

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- a) editorial changes were made;
 - b) a figure of an automatic locking Klettersteig connector was added;
 - c) requirements for textile components, fitted to connectors, were added;
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 - d) gate resistance was included in the requirements;
 - e) gate face and gate side testing was added to the testing procedure.

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.

EN 12275:2013 (E)

Introduction

The text of this European Standard is based on the former UIAA-Standard C (International Mountaineering and Climbing Federation), which has been developed with international participation.

This European Standard is one of a package of standards for mountaineering equipment, see Annex B.

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1 Scope

This European Standard specifies safety requirements and test methods for connectors for use in mountaineering, climbing and related activities. They are part of the safety system, which protects the climber from a fall from height.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 565:2006, *Mountaineering equipment — Tape — Safety requirements and test methods*

EN ISO 139:2005, *Textiles — Standard atmospheres for conditioning and testing (ISO 139:2005)*

ISO 7000, *Graphical symbols for use on equipment — Registered symbols*

3 Terms and definitions

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

3.1 connector

openable device, which enables a mountaineer to link himself directly or indirectly to an anchor or to link parts of the equipment together

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3.2 self-closing connector

connector with a self-closing gate

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3.3 basic connector (class B)

self-closing connector for use anywhere in a belay system

Note 1 to entry: See Figure 1.

3.4 HMS connector (class H)

self-closing connector – generally pear shaped – intended to be used primarily for dynamic belaying, for example using an "Italian hitch" (HMS)

Note 1 to entry: See Figure 2.

3.5 Klettersteig connector (class K)

self-closing connector intended to be used primarily for linking a mountaineer to a Klettersteig anchor (via ferrata) system

Note 1 to entry: See Figure 3.

EN 12275:2013 (E)**3.6****termination connector (class T)**

self-closing connector designed to ensure that the loading is in a predetermined direction

Note 1 to entry: See Figure 4.

3.7**specific anchor connector (class A)**

self-closing connector designed only to be linked directly to a specific class of anchor

Note 1 to entry: See Figure 5.

3.8**screwed-closure connector (Quicklink; class Q)**

connector which is closed by a scREW-motion gate, which is a load bearing part of the connector when fully screwed up

Note 1 to entry: See Figure 6.

3.9**oval connector (class X)**

self-closing connector with symmetric shape designed for e.g. aid climbing and pulleys

Note 1 to entry: See Figure 7.

3.10**gate of a connector**

part of the connector which can be moved to open it

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Note 1 to entry: The gate can move by pivoting about a hinge (hinged gate), or by a sliding motion (sliding gate) or by a screw motion (screw-motion gate).

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3.11**self-closing gate**

gate which moves automatically to the closed position when released from any open position, or when unlatched, if there is a gate-open latch

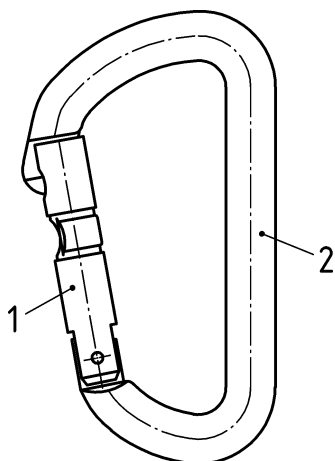
3.12**gate-locking device**

mechanism which reduces the possibility of a closed gate being opened inadvertently when unloaded

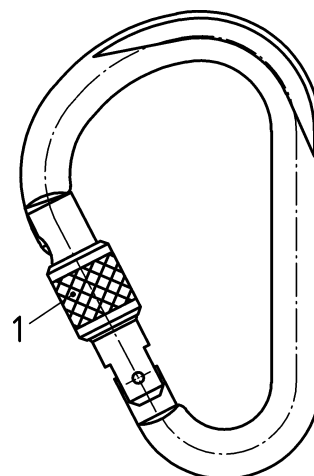
Note 1 to entry: A gate-locking device can operate automatically (to the locked position), or be operated manually.

3.13**gate-open latch**

device which holds the gate in the fully-open position and is actuated by a deliberate manual action



Key
 1 gate
 2 body



Key
 1 gate locking device

Figure 1 — Example of basic connector (class B)

Figure 2 — Example of HMS connector (class H)

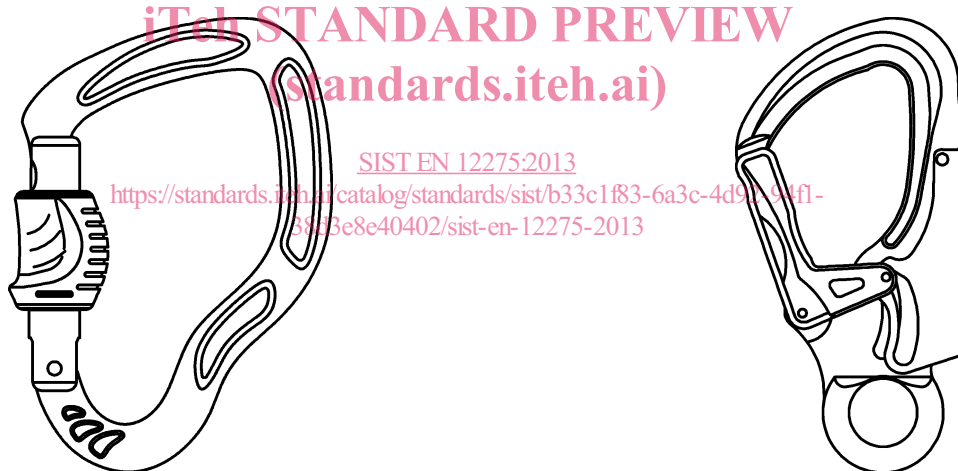
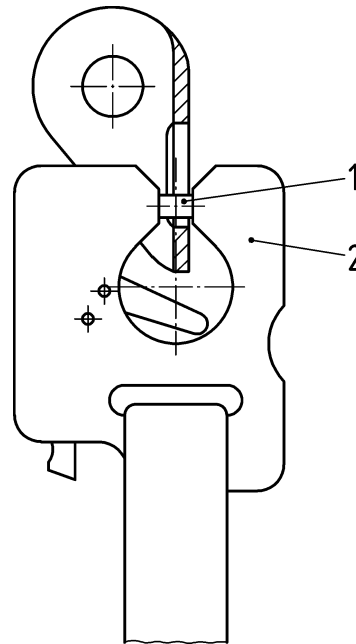
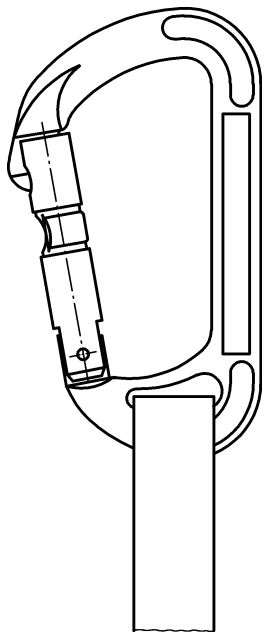


Figure 3 — Examples of a Klettersteig connector (class K)



Key

1 gate
2 body

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Figure 4 — Example of termination connector (class T)

Figure 5 — Example of specific anchor connector (class A)

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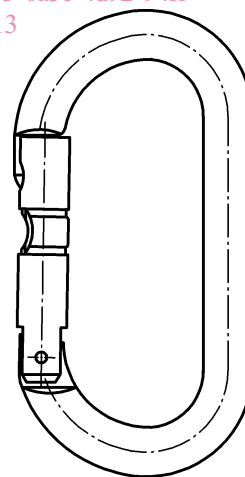
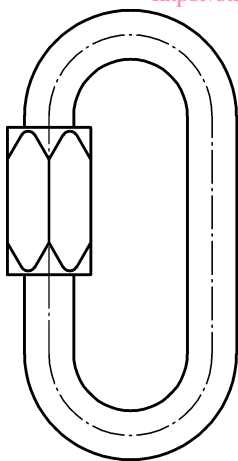


Figure 6 — Example of screwed-closure connector (Quicklink; class Q)

Figure 7 — Example of oval connector (class X)

4 Requirements

4.1 Design

NOTE There are no requirements concerning the dimensions or profile of that part of the connector that comes into contact with the rope under load, but see Annex A regarding this matter.

4.1.1 All parts of a connector that can come into contact with the user's hands and/or combinable components such as ropes, slings, accessory cords and harnesses, shall be free from burrs and sharp edges.

4.1.2 Connectors of class X shall be roughly symmetrical in outline about the longitudinal centre line. They shall have a minimum radius of curvature of 12 mm at the inner surface of the larger end and shall not have a gate-open latch.

4.1.3 Connectors of class H shall have a gate-locking device and shall not have a gate-open latch.

4.1.4 Connectors of class K shall have an automatic gate-locking device and shall not have a gate-open latch.

4.1.5 Connectors of class K shall have a gate opening of at least 21 mm.

4.1.6 Connectors of class K shall be able to accommodate in region A in accordance with Figure 8, a metal rod of 21 mm nominal diameter, without hindering the movement of the gate between the closed and fully open positions.

4.1.7 Connectors of classes A and T shall be so designed that the line of application of the load to the connector is uniquely defined.

4.1.8 Connectors of classes B, H, T and X shall have a gate opening of at least 15 mm.

4.1.9 Connectors of classes B, H, T and X shall be able to accommodate in region A in accordance with Figure 7, two rods of 11 mm nominal diameter without hindering the movement of the gate between the closed and fully open positions.

4.1.10 Connectors of class Q shall require at least four complete rotations of the screw-motion gate from the fully screwed up position to disengagement of the threads. There shall be a clearly visible indication if the gate is not in the fully screwed up position, for example by the visibility of threads or visibility of a contrasting coloured region and shall not have a gate-open latch.

4.1.11 Any hinged gate shall only open inwards, towards the body of the connector, but it is permissible for the gate to open at up to 20° from the plane of the connector.

4.1.12 A gate-open latch shall be designed to latch the gate open, only in its fully open position. The latch shall unlatch the gate automatically, either by attachment of the connector to an anchor, or by loading the connector. The gate open latch can be used for all connectors, except classes H, K, X and Q.

4.1.13 A manual gate-locking device shall require a deliberate manual action to lock the gate, and shall require at least two different actions to open the gate.

4.1.14 An automatic gate-locking device shall lock the gate automatically when the gate shuts, and shall require at least two different actions to open the gate.

4.1.15 If a tape is fitted to connectors, it shall be in accordance with the stability requirements according to EN 565:2006, 4.1.