SLOVENSKI STANDARD
SIST EN 4710-03:2019

01-januar-2019

Nadomešča:
SIST EN 4710-003:2015

Aeronavtika - Sponční sistemi za hitro sprostitev za nestrukturno uporabo - 03. del: Vzmetna objemka

Aerospace series - Quick release fastening systems for non-structural applications - Part 03: Spring clamp

Luft- und Raumfahrt - Druckverschlüsse nicht-strukturelle Anwendungen - Teil 03: Feder Clip

Série aérospatiale - Fixations rapides filetées pour applications non-structurales - Partie 03 : Collier Iyre

Ta slovenski standard je istoveten z: **EN 4710-03:2018**

ICS:

49.030.01	Vezni elementi na splošno	Fasteners in general

SIST EN 4710-03:2019 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 4710-03

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ICS 49.035

Supersedes EN 4710-03:2015

English Version

Aerospace series - Quick release fastening systems for non-structural applications - Part 03: Spring clamp

Série aérospatiale - Fixations rapides filetées pour applications non-structurales - Partie 03 : Collier lyre

Luft- und Raumfahrt - Schnellverschlüsse für nicht-strukturelle Anwendungen - Teil 03: Federclip

This European Standard was approved by CEN on 20 May 2018.

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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

Contents

European foreword

This document (EN 4710-03:2018) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

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of an identical text or by endorsement, at the latest by April 2019, and conflicting national standards shall be withdrawn at the latest by April 2019.

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This document supersedes EN 4710-03:2015.

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.

1 Scope

This European standard specifies the dimensions, mass, tolerances and static values of spring clamps for use in fuselage interior equipment and non-structural or secondary structural area. This standard part shall be used in conjunction with EN 4710-06 and EN 4710-07 as described in EN 4710-02.

The applicable temperature range is −55 °C to 85 °C.

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.

DIN EN ISO 19598, Metallic coatings — Electroplated coatings of zinc and zinc alloys on iron or steel with supplementary CR(VI)-free treatment (ISO 19598:2016)

EN 2424, *Aerospace series — Marking of aerospace products*

EN 2516, *Aerospace series — Passivation of corrosion resistant steels and decontamination of nickel base alloys*

EN 4710-01, *Aerospace series — Quick release fastening systems for non-structural applications — Part 01: Technical specification*

EN 4710-02, *Aerospace series — Quick release fastening systems for non-structural applications — Part 02: Spring clamp stud combination*

EN 4710-06, *Aerospace series — Quick release fastening systems for non-structural applications — Part 06: Stud — quick-release and locking*

EN 4710-07, *Aerospace series — Quick release fastening systems for non-structural applications — Part 07: Retaining grommet*

EN 10132-4, *Cold-rolled narrow steel strip for heat-treatment — Technical delivery conditions — Part 4: Spring steels and other applications*

EN 10151, *Stainless steel strip for springs — Technical delivery conditions*

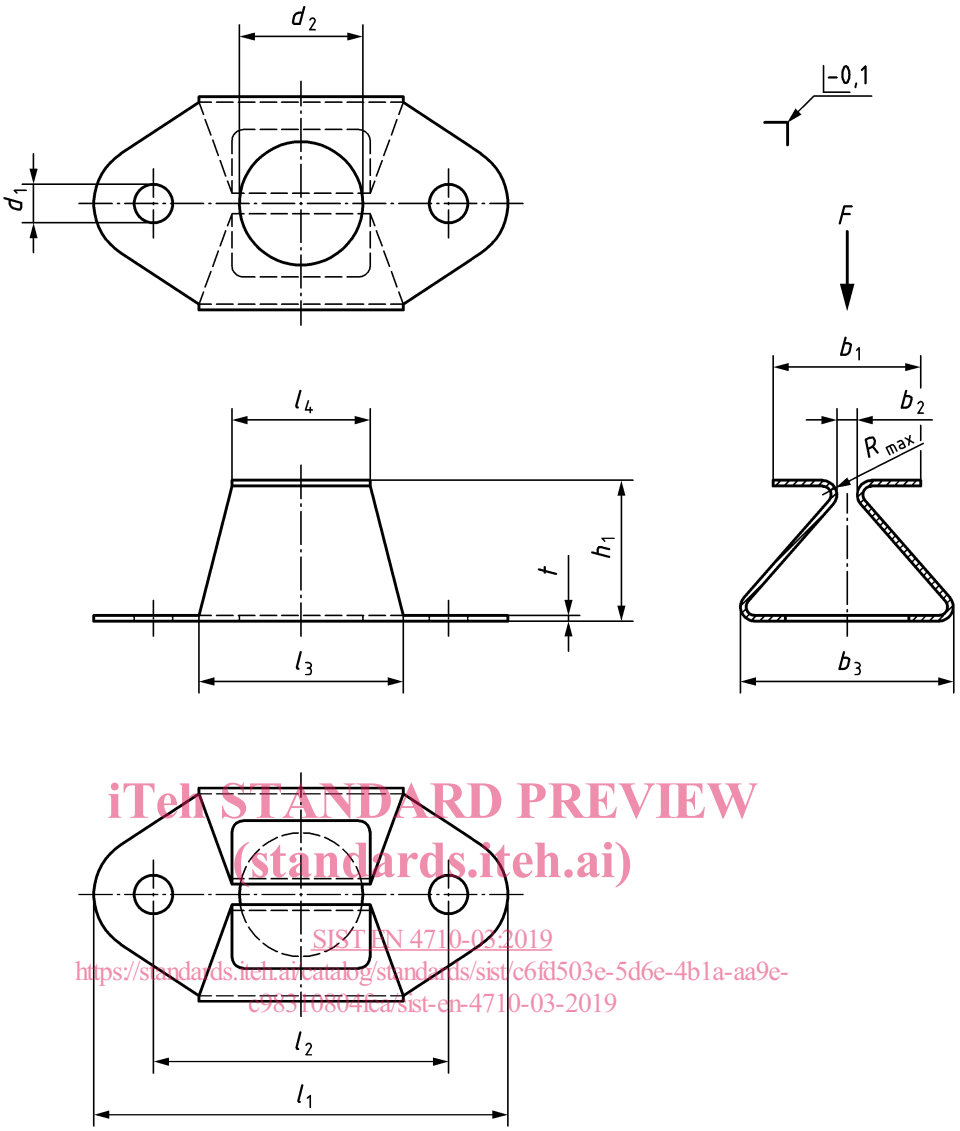
EN 22768-1:1993, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1:1989)*

EN 22768-2:1993, *General tolerances — Part 2: Geometrical tolerances for features without individual tolerance indications (ISO 2768-2:1989)*

3 Requirements

3.1 Configuration, dimensions, tolerances and mass

The configuration, dimensions, tolerances and mass shall conform with Figure 1 and Table 1. Tolerances not specified, shall be in accordance with ISO 2768-mK (EN 22768-1:1993 and EN 22768-2:1993). Dimensions are unless otherwise specified per manufacturer's option.



Key

F load direction

Figure 1 — Configuration spring clamp Cx

Table 1 — Dimensions and mass

Dimensions in millimetres

Type code	**Plate code**[a]	b_1 ±0,4	b_2	b_3 ±0,3	$\varnothing d_1$	$\varnothing d_2$ ±0,1	h_1	l_1	l_2 ±0,1	l_3 ±0,3	l_4 ±0,3	t	$R_{max.}$	**Mass** approximate *g*
CS	3	5,0	0,8 ± 0,2	9,5	2,6	5,0	6,2	19,3	12,8	8,5	6,2	0,3	0,6	0,4
CM	4	7,0	1,2 ± 0,3	13,7	2,6	7,8	10,2	25,7	17,5	12,2	9,0	0,4	1,0	1,7
CL	5	13,0	1,8 ± 0,4	18,8	3,4	10,9	12,4	36,5	26,0	18,0	12,2	0,5	1,2	3,8

[a] Plate code is according to dimension *t*.

3.2 Mechanical characteristics

Ultimate loads, see Table 2.

Table 2 — Loads

Type code	Ultimate loads *F* N	Material code
CS	500	A
		S
CM	900	A
		S
CL	2 000	A
		S

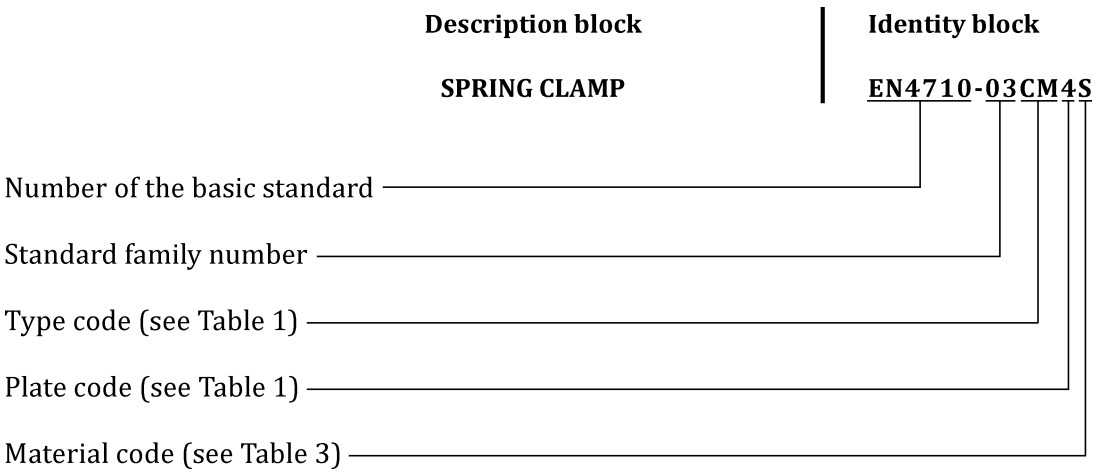
3.3 Materials and surface treatment

Materials and finished shall be in accordance with the Table 3.

Table 3 — Materials and surface treatment

Material code	Material	Surface treatment
S	Stainless steel 1.4310 according to EN 10151	Passivated according to EN 2516
A	Alloy steel 1.0605 according to EN 10132-4 or Alloy steel 1.1248 according to EN 10132-4	Electro plated coating according to DIN EN ISO 19598

4 Designation



5 Marking

Marking shall be in accordance with EN 2424, style F.

6 Technical specification

Required tests for acceptance and qualification shall be in accordance to Table 4.

Table 4 — Requirements, inspections and tests

Characteristic	Requirements	Requirements according to EN 4710-01	Inspections and tests according to EN 4710-01	A[a]	Q[b]
Materials	According to Table 3.	4.1	5.4.1	X	X
Dimensions and masses	According to Table 1.	4.2	5.4.2	X	X
Surface defects	According to EN 4710-01.	4.3.1	5.4.3.1	X	X
Surface treatment	According to Table 3.	4.3.2	5.4.3.2	X	X
Ultimate tensile load	According to Table 2.	4.4.1	5.4.4.1	—	X
Corrosion resistance	According to EN 4710-01.	4.5	5.4.5	—	X
Functionality	According to EN 4710-01.	4.7.1	5.4.7.1	—	X
Endurance	Material code A: 1 500 cycles Material code S: 500 cycles.	4.7.2	5.4.7.2	—	X
Identification marking of the product	According to EN 4710-01.	4.8.1	5.4.8.1	X	X
Identification marking of the package	According to EN 4710-01.	4.8.2	5.4.8.2	X	X

[a] Acceptance test.

[b] Qualification test.