SLOVENSKI STANDARD
SIST EN 6093:2023

01-november-2023

Aeronavtika - Gibka vtičnica z enojnim ušescem

Aerospace series - Receptacle, floating, single lug

Luft- und Raumfahrt - Haltenocken, schwimmend, einseitig

Série aérospatiale - Réceptacle, flottant, simple patte

Ta slovenski standard je istoveten z: **EN 6093:2023**

ICS:

49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems

SIST EN 6093:2023 **en,fr,de**

EUROPEAN STANDARD

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EN 6093

August 2023

ICS 49.060

English Version

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This European Standard was approved by CEN on 9 July 2023.

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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

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European foreword

This document (EN 6093:2023) 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 document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, 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of an identical text or by endorsement, at the latest by February 2024, and conflicting national standards shall be withdrawn at the latest by February 2024.

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1 Scope

This document specifies the dimensions, tolerances, required characteristics and mass of a receptacle for use in fuselage interior equipment and structural applications. This document is intended to be used in conjunction with studs according to EN 6088[1] or EN 6105.

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 17850:1990-11, *Titanium — Chemical composition*

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

EN 2491, *Aerospace series — Molybdenum disulphide dry lubricants — Coating methods*

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

EN 2808, *Aerospace series — Anodizing of titanium and titanium alloys*

EN 6092, *Aerospace series — Receptacle, floating, double lug*

EN 6094, *Aerospace series — Washer, spring, countersunk*

EN 6095,[2] *Aerospace series — Rotary fasteners —Structural and non-structural applications — Technical specification*

EN 6105, *Aerospace series — Stud with shoulder*

EN 6118,[3] *Aerospace series — Process specification — Aluminium base protection for fasteners*

EN 10088-3, *Stainless steels — Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes*

EN 10270-1, *Steel wire for mechanical springs — Part 1: Patented cold drawn unalloyed spring steel wire*

EN ISO 6931-1, *Stainless steels for springs — Part 1: Wire (ISO 6931-1)*

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 8080, *Aerospace — Anodic treatment of titanium and titanium alloys — Sulfuric acid process*

MIL-DTL-83488,[4] *Coating, Aluminum, High Purity*

MIL-PRF-46010,[4] *Lubricant, Solid Film, Heat Cured, Corrosion Inhibiting NATO Code — S-1738*

[1] Published as ASD-STAN Prestandard at the date of publication of this standard by AeroSpace and Defence Industries Association of Europe – Standardization (ASD-STAN) (www.asd-stan.org)
[2] Under preparation. Current stage is FprEN 6095.
[3] Under preparation. Current stage is prEN 6118.
[4] Published by Department of Defense (DoD), available at: https://assist.dla.mil/

SAE AMS 2700,[5] *Passivation of Corrosion Resistant Steels*

SAE AMS 5528,[5] *Steel, Corrosion-Resistant, Sheet, Strip, and Plate, 17Cr — 7.1Ni — 1.1Al, Solution Heat Treated, Precipitation Hardenable*

SAE AS 8879,[5] *Screw threads — UNJ Profile, Inch Controlled Radius Root with Increased Minor Diameter*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/

— IEC Electropedia: available at https://www.electropedia.org/

4 Requirements

4.1 Configuration, dimensions, tolerances and mass

The configuration, dimensions and tolerances shall be according to Figure 1.

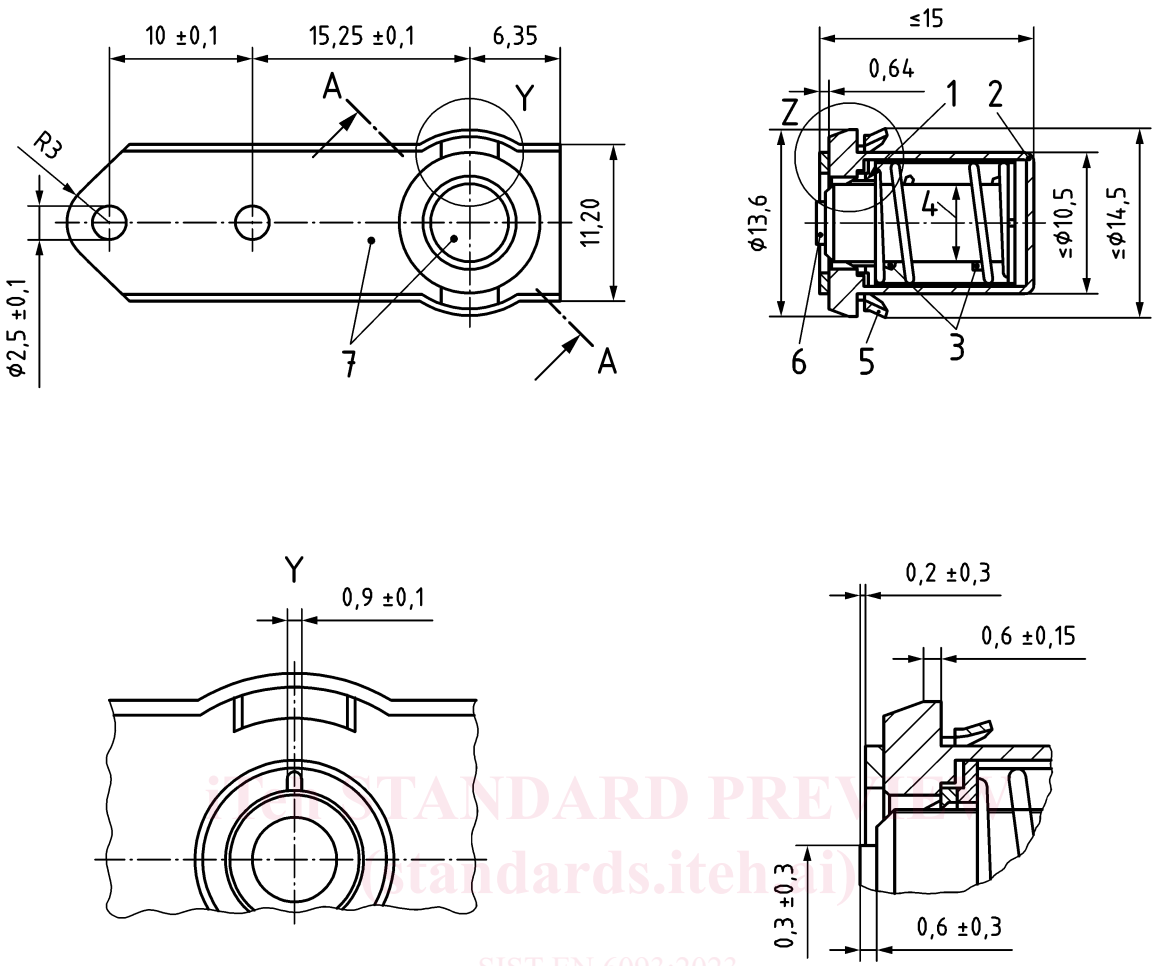
Dimensions and tolerances are expressed in millimetres.

Tolerances not specified shall be according to ISO 2768-1.

All dimensions and tolerances apply after surface treatment.

All burrs shall be removed/sharp edges shall be broken.

[5] Published by Society of Automotive Engineers (SAE), available at: https://www.sae.org/



Key

1 washers
2 cap
3 springs
4 thread according to SAE AS 8879, 8-32UNJ-3A, 2 lead
5 plate
6 screw
7 marking, see Clause 6

Figure 1 — Configuration, dimensions and tolerances

4.2 Material and surface treatment

The material and surface treatment shall be according to Table 1.

Table 1 — Material and surface treatment

Dash number	Finish code	Element	Material	Finish	Lubricant
01	—	Screw	Corrosion resistant steel 1.4303 according to EN 10088-3	Passivated according to SAE AMS 2700 or EN 2516	Dry film according to MIL-PRF-46010[a]
		Cap	Corrosion resistant steel 1.4404 according to EN 10088-3[b]		None
		Plate	Corrosion resistant steel according to SAE AMS 5528		
		Springs	Corrosion resistant steel 1.4310 according to EN 10270-1 or EN ISO 6931-1		
		Washers	Corrosion resistant steel according to SAE AMS 5528		Dry film according to MIL-PRF-46010 or EN 2491
01	V	Screw	Corrosion resistant steel 1.4303 according to EN 10088-3	—	Dry film according to MIL-PRF-46010[a]
		Cap	Corrosion resistant steel 1.4404 according to EN 10088-3[b]	IVD coating according to MIL-DTL-83488 type II, class 3 or EN 6118	None
		Plate	Corrosion resistant steel according to SAE AMS 5528		
		Springs	Corrosion resistant steel 1.4310 according to EN 10270-1 or EN ISO 6931-1	—	
		Washers	Corrosion resistant steel according to SAE AMS 5528		Dry film according to MIL-PRF-46010 or EN 2491
02	S	Screw	Corrosion resistant steel 1.4303 according to EN 10088-3	Passivated according to SAE AMS 2700 or EN 2516	Dry film according to MIL-PRF-46010 or EN 2491[a]
		Cap	Titanium alloy 3.7035 according to DIN 17850:1990-11	Anodized according to EN 2808 or ISO 8080	None
		Plate	Corrosion resistant steel according to SAE AMS 5528	Passivated according to SAE AMS 2700 or EN 2516	
		Springs	Corrosion resistant steel 1.4310 according to EN 10270-1 or EN ISO 6931-1		
		Washers	Corrosion resistant steel according to SAE AMS 5528		Dry film according to MIL-PRF-46010

[a] At manufacturer's discretion.

[b] Carbon content of 0,3 % max. permitted after sintering process.

4.3 Mechanical characteristics

All mechanical characteristics shall be valid in conjunction with receptacles according to EN 6092 and this document only.

4.4 Static values

Maximum axial tensile load: 6 000 N.

Maximum installation torque: 3,2 Nm.

4.5 Floatability

Minimum floatability: 0,64 mm radially from centre.

4.6 Operating temperature

This receptacle shall be used in the temperature range of −55 °C to 150 °C.

4.7 Mass

See Table 2.

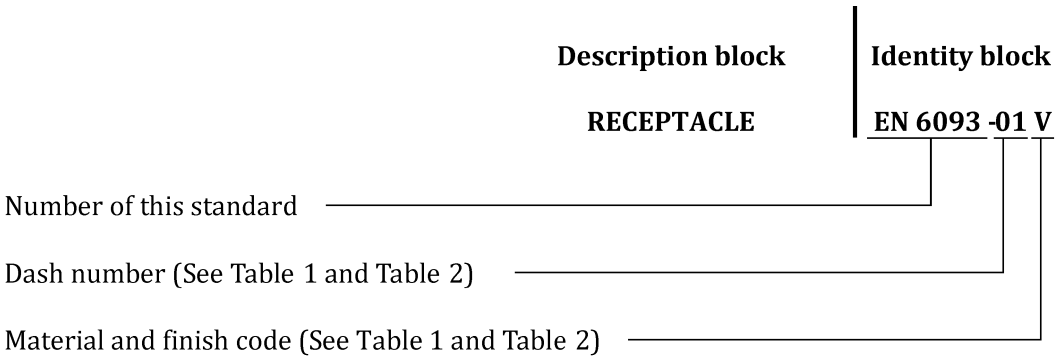
Table 2 — Mass

Dash number	Finish code	Mass (Ref.) kg/1 000 pieces
01	—	6,7
01	V	6,7
02	S	5,2

5 Designation

If necessary, the code I9005 shall be placed between the description block and the identity block.

EXAMPLE



6 Marking

The marking shall be according to EN 2424, style F.