

SLOVENSKI STANDARD

SIST EN 4652-320:2018

01-februar-2018

Aeronavtika - Konektorji, koaksialni, radiofrekvenčni - 320. del: Tip 3, vmesnik N - Izvedba s stisljivimi priključki - Ravni vtič - Standard za proizvod

Aerospace series - Connectors, coaxial, radio frequency - Part 320: Type 3, N interface - Crimp version - Straight plug - Product standard

Luft- und Raumfahrt - Koaxiale Hochfrequenz-Steckverbinder - Teil 320: Typ 3, N-Schnittstelle, Crimpverbindung, freier Steckverbinder, gerade - Produktnorm

Série aérospatiale - Connecteurs coaxiaux pour radio fréquences - Partie 320 : Type 3, interface N - Version à sertir - Fiche droite - Norme de produit

<https://standards.iteh.ai/catalog/standards/sist/cf53f31-7bf4-4138-90ab-292bde610904/sist-en-4652-320-2018>

Ta slovenski standard je istoveten z: EN 4652-320:2017

ICS:

31.220.10	Vtiči in vtičnice, konektorji	Plug-and-socket devices. Connectors
49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems

SIST EN 4652-320:2018

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 4652-320:2018](#)

<https://standards.iteh.ai/catalog/standards/sist/cff53f31-7bf4-4138-90ab-292bde610904/sist-en-4652-320-2018>

EUROPEAN STANDARD

EN 4652-320

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2017

ICS 49.060

English Version

Aerospace series - Connectors, coaxial, radio frequency - Part 320: Type 3, N interface - Crimp version - Straight plug - Product standard

Série aérospatiale - Connecteurs coaxiaux pour radio
fréquences - Partie 320 : Type 3, interface N - Version à
sertir - Fiche droite - Norme de produit

Luft- und Raumfahrt - Koaxiale Hochfrequenz-
Steckverbinder - Teil 320: Typ 3, N-Schnittstelle,
Crimpverbindung, freier Steckverbinder, gerade -
Produktnorm

This European Standard was approved by CEN on 18 September 2017.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword	3
1 Scope.....	4
2 Normative references.....	4
3 Required characteristics	4
4 Test methods	10
5 Qualification.....	12
6 Quality assurance.....	12
7 Designation	12
8 Marking.....	13
9 Packaging.....	13
10 Storage	13

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 4652-320:2018](https://standards.iteh.ai/catalog/standards/sist/cff53f31-7bf4-4138-90ab-292bde610904/sist-en-4652-320-2018)

<https://standards.iteh.ai/catalog/standards/sist/cff53f31-7bf4-4138-90ab-292bde610904/sist-en-4652-320-2018>

European foreword

This document (EN 4652-320:2017) 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 May 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 4652-320:2018](https://standards.iteh.ai/catalog/standards/sist/cff53f31-7bf4-4138-90ab-292bde610904/sist-en-4652-320-2018)

<https://standards.iteh.ai/catalog/standards/sist/cff53f31-7bf4-4138-90ab-292bde610904/sist-en-4652-320-2018>

EN 4652-320:2017 (E)**1 Scope**

This European Standard specifies the characteristics of screwed on coupling (N interface) coaxial straight plugs – 50 ohms. The cable to connector assembly is a crimp technology.

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.

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

EN 2591*, *Aerospace series — Elements of electrical and optical connection — Test methods*¹⁾

EN 2812, *Aerospace series — Stripping of electric cables*

EN 4652-001, *Aerospace series — Connectors, coaxial, radio frequency — Part 001: Technical specification*

EN 4652-002, *Aerospace series — Connectors, coaxial, radio frequency — Part 002: Specification of performances*

EN 4652-322, *Aerospace series — Connectors, coaxial, radio frequency — Part 322: Type 3, N interface — Crimp version — Square flange receptacle — Product standard*

EN 9133, *Aerospace series — Quality Management Systems — Qualification Procedure for Aerospace Standard Products*

TR 6058, *Aerospace series — Cable code identification list*²⁾

3 Required characteristics

- The connection technology shall comply to all required tests described in Clause 4.
- All interface shall comply to EN 4652-001.
- Holes for lockwire shall exist in case of no self-locking device on the product.
- Water ingress resistance is required in mated conditions for all cable groups.
- Water ingress resistance is required in unmated conditions for cable group A.

* All parts quoted in this European Standard.

1) Published as ASD-STAN Prestandard at the date of publication of this European Standard. (www.asd-stan.org).

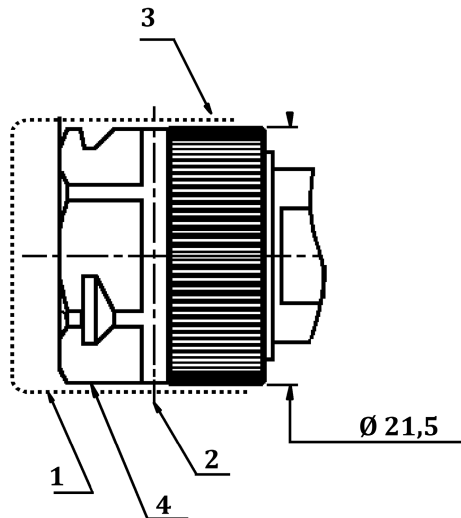
2) Published as ASD-STAN Technical Report at the date of publication of this European Standard. (www.asd-stan.org).

3.1 Configuration, dimension and mass

Mass without heatshrink tubing

See Figure 1 to Figure 3 and Table 1.

Dimensions in millimetres



Key

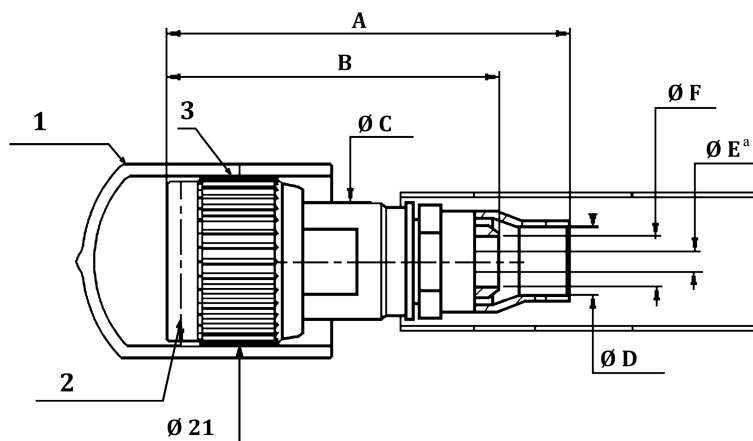
- 1 Prospective cap
- 2 Marking axis
- 3 Straight knurl
- 4 Hex 18,9 / Flats

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 4652-320:2018

<https://standards.iteh.ai/catalog/standards/sist/cf53f31-7bf4-4138-90ab-292bde610904/sist-en-4652-320-2018>
Figure 1 — Nut type G

Dimensions in millimetres

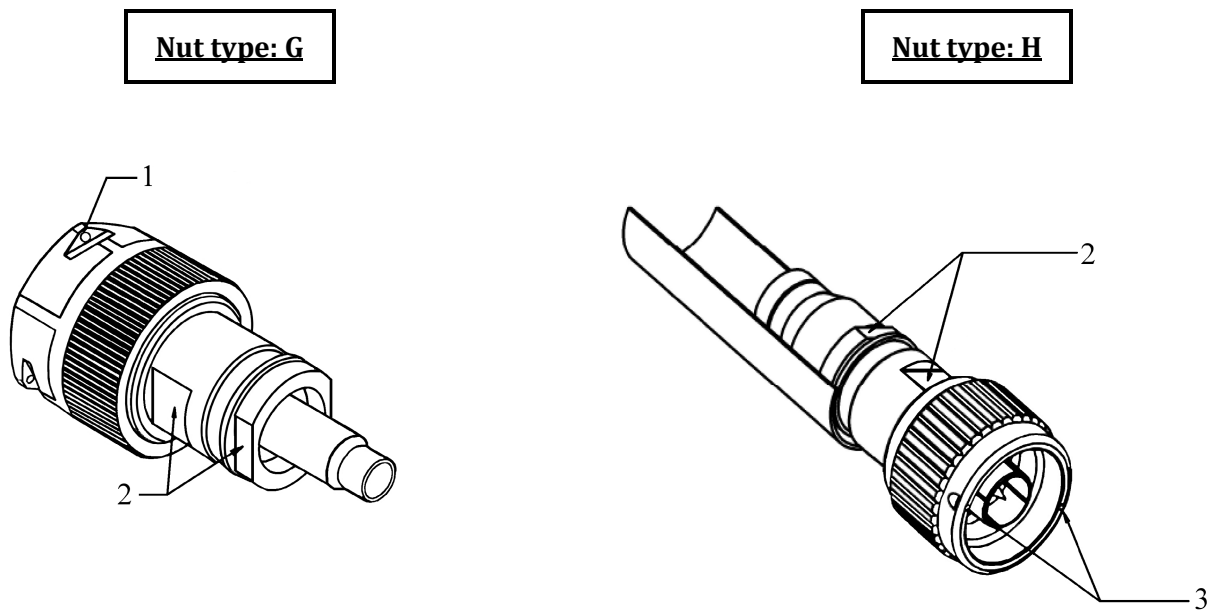


Key

- 1 Prospective cap
- 2 Marking axis
- 3 Straight knurl
- ^a Center contact

Figure 2 — Nut type H and connector dimensions

Dimensions in millimetres

**Key**

- 1 3 holes diameter 1° to 120°
- 2 Hex 12/2 flats
- 3 2 holes diameter 0,75

Marking: see Clause 8.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 4652-320:2018](https://standards.iteh.ai/catalog/standards/sist/cff53f31-7bf4-4138-90ab-292bde610904/sist-en-4652-320-2018)

<https://standards.iteh.ai/catalog/standards/sist/cff53f31-7bf4-4138-90ab-292bde610904/sist-en-4652-320-2018>

Figure 3 — Type G and H over view**Table 1 — N straight plug dimensions and mass**

Cable code (see TR 6058)	Cable group	Nut type	A max.	B max.	ØC	ØD	ØE	ØF	Mass g
WM	C	G	47	37,5	11,45	4,2	1,15	3	41,68
WD	E	H	50	41,5	13,95	8,4	2,5	6,3	45,02
WN	F	H	50	41,5	13,95	8,4	2,5	6,3	45,02

3.2 Materials and finish

- Center contact (front active part): Copper alloy gold plated over nickel undercoat
- Ferrule (if existing): Copper alloy over nickel undercoat
- Insulators: PTFE
- Sealings: Silicone rubber or silicon fluoride
- Heat shrink tube.....: Polyolefin

Body of connector, coupling nut, rear screw materials of these parts shall have mechanical and electrical characteristics consistent with the required use.

3.3 Temperature

Operating temperature shall be between – 65 °C to 165 °C (only connectors).

3.4 Electrical characteristics

Impedance..... : 50 Ω
 Maximum operating frequency : 6 GHz
 VSWR..... : See Table 2

Table 2 — Electrical characteristics

Frequency (MHz)	VSWR max.
3 000	1,10
6 000	1,15

The VSWR requirement is applicable for connector alone.

Insertion loss..... : See Table 3
 Contact resistance (initial central contact) : 1,5 mΩ max.
 Insulation resistance..... : 5 000 MΩ min.
 Withstand voltage..... : 1 500 Veff (at sea level)

3.5 General characteristics

SIST EN 4652-320:2018

Tightening torque of coupling nut..... : 3,7 m.N ± 0,3 Nm

Coupling proof torque..... : $\left[\begin{array}{l} T = 1,3 \text{ Nm for nut H} \\ T = 1,6 \text{ Nm for nut G} \end{array} \right.$

Service life : 500 cycles

Retention of centre contact..... : 27 N min.

Retention of cable : See Table 3

Table 3 — General characteristics

Cable code (see TR 6058)	Insertion loss	Retention of cable
WD, WN	0,048 \sqrt{f} (GHz) dB max.	400 N min.
WM	0,1 \sqrt{f} (GHz) dB max.	140 N min.