

# SLOVENSKI STANDARD

## SIST EN 4652-412:2016

01-februar-2016

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**Aeronavtika - Konektorji, koaksialni, radiofrekvenčni - 412. del: Tip 4, vmesnik C - Izvedba z objemno matico - Vtičnica s pravokotno prirobnico - Standard za proizvod**

Aerospace series - Connectors, coaxial, radio frequency - Part 412: Type 4, C interface - Clamp nut assembly version - Square flange receptacle - Product standard

Luft- und Raumfahrt - Koaxiale Hochfrequenz-Steckverbinder - Teil 412: Typ 4, C-Schnittstelle, Klemmmontageversion, fester Steckverbinder mit quadratischem Montageflansch - Produktnorm (standards.iteh.ai)

Série aérospatiale . Connecteurs coaxiaux radiofréquence . Partie 412 : Interface de type 4C, version à assemblage par brides, embase à bride carrée . Norme de produit

**Ta slovenski standard je istoveten z: EN 4652-412:2015**

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**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 4652-412:2016**

**en,fr,de**

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EUROPEAN STANDARD

EN 4652-412

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2015

ICS 49.060

English Version

**Aerospace series - Connectors, coaxial, radio frequency -  
Part 412: Type 4, C interface - Clamp nut assembly version  
- Square flange receptacle - Product standard**

Série aérospatiale - Connecteurs coaxiaux pour radio  
fréquences - Partie 412 : Type 4, interface C - Version à  
presse étoupe - Embase à collerette carrée - Norme de  
produit

Luft- und Raumfahrt - Koaxiale Hochfrequenz-  
Steckverbinder - Teil 412: Typ 4, C-Schnittstelle,  
Klemmmontageversion, fester Steckverbinder mit  
quadratischem Montageflansch - Produktnorm

This European Standard was approved by CEN on 13 May 2015.

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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.

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

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

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## European foreword

This document (EN 4652-412:2015) 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 European 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 June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

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.

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

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**EN 4652-412:2015 (E)****1 Scope**

This European Standard specifies the characteristics of bayonet coupling (C interface) coaxial straight square flange receptacles – 50 ohms. The cable to connector assembly is a clamp technology.

**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 2591 <sup>1)</sup>, *Aerospace series — Elements of electrical and optical connection — Test methods*

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

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

EN 4652-410, *Aerospace series — Connectors, coaxial, radio frequency — Part 410: Type 4, C interface — Clamp nut assembly version — Straight plug — Product standard*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

TR 6058, *Aerospace series — Cable code identification list* <sup>2)</sup>

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**3 Terms and definitions**

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For the purposes of this document, the terms and definitions given in EN 4652-001 apply.

<http://standards.iteh.ai/catalog/standards/sist/737b4143-7f15-4652-9011-d234d9ec545a/sist-en-4652-412-2016>

**4 Required characteristics**

- The connection technology shall comply to required tests described in Clause 5.
- Interface shall comply to EN 4652-001.
- Water ingress resistance is required in unmated condition for cable group A.

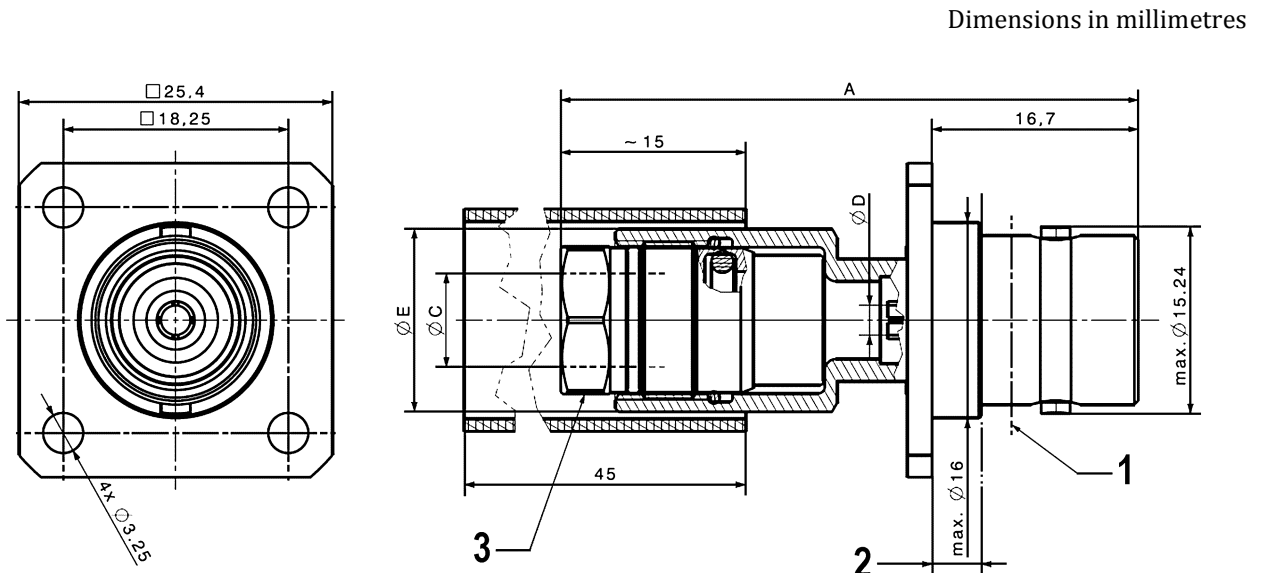
1) All parts quoted in this standard.

2) Published as ASD-STAN Technical Report at the date of publication of this standard. <http://www.asd-stan.org/>

#### 4.1 Configuration, dimension and mass

Mass without heat shrink tubing.

See Figure 1 and Table 1.



#### Key

- 1 Marking
- 2 Max. panel thickness: 4
- 3 HEX. F

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**Figure 1 — C square flange receptacle**

Marking: see Clause 9.

**Table 1 — C square flange receptacle dimensions and mass**

Cable group	<i>A</i>	$\varnothing C$ (cable jacket)	$\varnothing D$ (cable conductor)	$\varnothing E$	HEX. <i>F</i>	Mass g
	max.	max.		max.		max.
A	48	7,8	2,3	15	12	48,0
B	43	5,55	1,4	13	8	39,5

**EN 4652-412:2015 (E)****4.2 Materials and finish**

Centre contact .....	: Copper alloy gold plated over nickel undercoat
Insulators .....	: PTFE
Sealings .....	: Silicone rubber or silicone fluoride
Body .....	: Copper alloy, nickel plated
Heat shrink tube .....	: Polyolefin

Rear screw and other parts' materials shall have mechanical and electrical characteristics consistent with the requirements of this product standard.

**4.3 Temperature**

Operating temperature shall be between – 65 °C and 165 °C.

**4.4 Electrical characteristics**

Impedance .....	: 50 Ω
Maximum operating frequency .....	: 6 GHz
VSWR .....	: 1,15 up to 6 GHz
Insertion loss .....	: 0,05 V <sub>f</sub> dB max., f in GHz
Contact resistance (initial centre contact) .....	: 1,0 mΩ max.
Insulation resistance .....	: 5 000 MΩ min.
Withstand voltage .....	: 1 500 V <sub>eff</sub> (at sea level)

**4.5 General characteristics**

Force to engage or disengage	
— Longitudinal force .....	: 20 N
— Torque .....	: 0,45 Nm max.
Service life .....	: 500 cycles
Retention of centre contact .....	: 27 N
Retention of cable .....	: see Table 2.



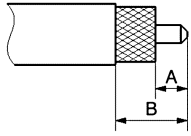
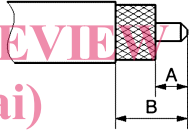
**Table 2 — Retention of cable**

Cable group	Retention of cable
	N min.
A	180
B	180

#### 4.6 Admissible cables, tools and stripping lengths

See Table 3 to Table 5.

**Table 3 — Stripping lengths**

Cable group	Cable code (see TR 6058)	Stripping lengths mm
A	KW	
B	KX	

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**Table 4 — Stripping lengths cable group A**

A		B	
min. mm	max. mm	min. mm	max. mm
3,6	4,4	8,6	9,4

**Table 5 — Stripping lengths cable group B**

A		B	
min. mm	max. mm	min. mm	max. mm
3,6	4,4	7,6	8,4

For stripping, see EN 2812.