



SLOVENSKI STANDARD SIST EN 4652-210:2016

01-februar-2016

**Aeronavtika - Konektorji, koaksialni, radiofrekvenčni - 210. del: Tip 2, vmesnik TNC
- Izvedba z objemno matico - Ravni vtič - Standard za proizvod**

Aerospace series - Connectors, coaxial, radio frequency - Part 210: Type 2, TNC interface - Clamp nut assembly version - Straight plug - Product standard

Luft- und Raumfahrt - Hochfrequenz Steckverbinder, koaxial - Teil 210: Typ 2 TNC - Klemmverbindung - Gerader Kabelverbinder - Produktnorm

Série aérospatiale - Connecteurs coaxiaux pour radio fréquences - Partie 210 : Type 2, interface TNC - Version à presse étoupe - Fiche droite - Norme de produit

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Ta slovenski standard je istoveten z: EN 4652-210:2015

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 4652-210:2016

en,fr,de

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EUROPEAN STANDARD

EN 4652-210

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2015

ICS 49.060

English Version

**Aerospace series - Connectors, coaxial, radio frequency -
Part 210: Type 2, TNC interface - Clamp nut assembly
version - Straight plug - Product standard**

Série aérospatiale - Connecteurs coaxiaux pour radio
fréquences - Partie 210 : Type 2, interface TNC -
Version à presse étoupe - Fiche droite - Norme de
produit

Luft- und Raumfahrt - Koaxiale Hochfrequenz-
Steckverbinder - Teil 210: Typ 2, TNC-Anschluss -
Klemmverbindung - freier Steckverbinder, gerade -
Produktnorm

This European Standard was approved by CEN on 6 June 2015.

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.

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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 4652-210:2015) 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 4652-210:2015 (E)**1 Scope**

This European Standard specifies the characteristics of screwed on coupling (TNC interface) coaxial straight plugs – 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 ¹⁾, *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 4652-212, *Aerospace series — Connectors, coaxial, radio frequency — Part 212: Type 2, TNC interface — Clamp nut assembly version — Square flange receptacle — Product standard*

EN 4652-213, *Aerospace series — Connectors, coaxial, radio frequency — Part 213: Type 2, TNC interface — Clamp nut assembly version — Bulkhead receptacle — Product standard*

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

TR 6058, *Aerospace series — Cable code identification list 2)*
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3 Terms and definitions

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

4 Required characteristics

- The connection technology shall comply to required tests described in Clause 5.
- Interface shall comply to EN 4652-001.
- A self-locking device on plugs shall be proposed if hole for lockwire do not exist.
- Water ingress resistance is required in mated conditions for all cable groups.
- Water ingress resistance is required in unmated condition for cable group A.

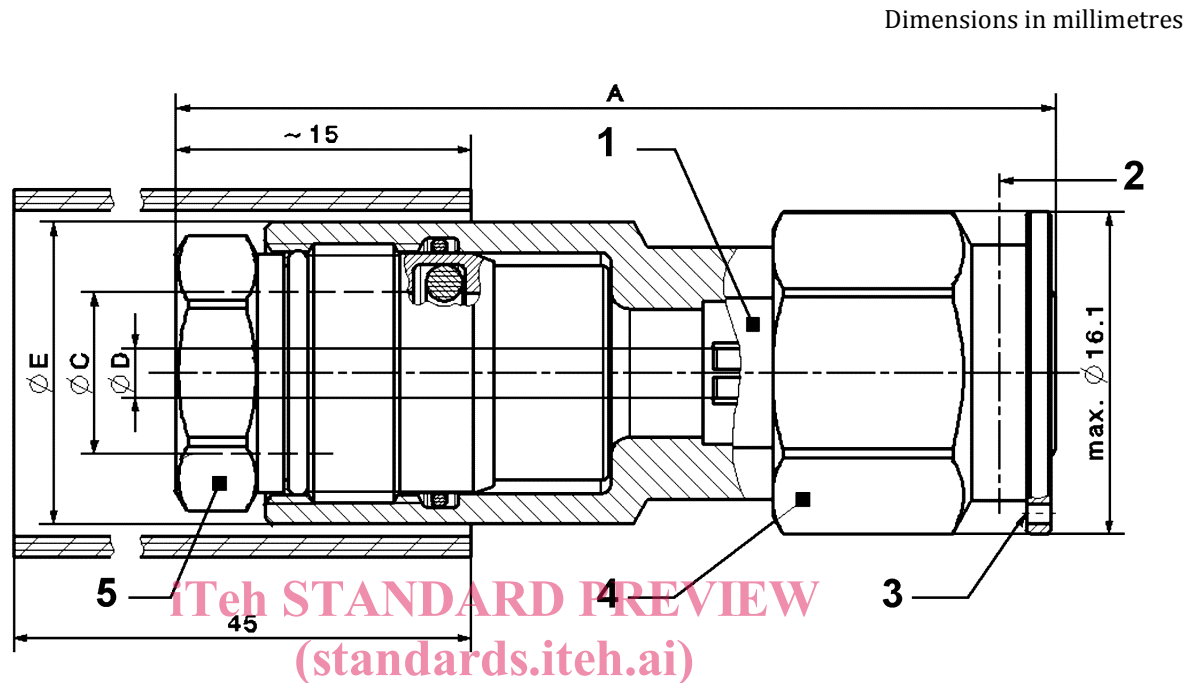
1) All parts quoted in this standard.

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 Flat 10
- 2 Marking
- 3 3 holes for lockwire $\varnothing 1$
- 4 HEX. 14
- 5 HEX. *F*

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Figure 1 — TNC straight plug

Marking: see Clause 9.

Table 1 — TNC straight plug dimensions and mass

Cable group	A	$\varnothing C$ (cable jacket)	$\varnothing D$ (cable conductor)	$\varnothing E$	HEX. <i>F</i>	Interface style (according to EN 4652-001)	Mass g
	max.	max.		max.			max.
A	43,6	7,8	2,3	15	12	Style C	35,7
B	35,9	5,55	1,4	13	8	Style C	25,2

EN 4652-210:2015 (E)**4.2 Materials and finish**

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

Coupling nut, 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	: $0,04\sqrt{f}$ dB max., <i>f</i> in GHz
Contact resistance (initial centre contact)	: 1,5 mΩ max.
Insulation resistance	: 5 000 MΩ min.
Withstand voltage	: 1 500 Veff (at sea level)

4.5 General characteristics

Tightening torque of coupling nut	: 2,6 Nm ± 0,3 Nm
Force to engage or disengage	: 0,23 Nm max.
Service life	: 500 cycles
Retention of centre contact	: 27 N min.
Retention of cable	: see Table 2.

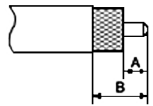
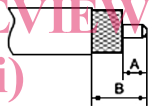
Table 2 — Retention of cable

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
4,6	5,4	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.