

# SLOVENSKI STANDARD

## SIST EN 2997-006:2018

01-februar-2018

Nadomešča:

SIST EN 2997-006:2009

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**Aeronavtika - Konektorji, električni, okrogli, priključeni z navojnim obročkom, odporni ali neodporni proti ognju, s stalno delovno temperaturo med –65 °C in 175 °C, stalno 200 °C, najvišjo 260 °C - 006. del: Neprepustna pritrditev z matico - Standard za proizvod**

Aerospace series - Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures - 65 °C to 175 °C continuous, 200 °C continuous, 260 °C peak - Part 006: Hermetic jam-nut mounted receptacle - Product standard

Luft- und Raumfahrt - Elektrische Rundsteckverbinder mit Schraubkupplung, feuerbeständig oder nicht feuerbeständig, Betriebstemperaturen - 65 °C bis 175 °C konstant, 200 °C konstant, 260 °C Spitze - Teil 006: Hermetischer fester Steckverbinder mit Mutterbefestigung - Produktnorm

Série aérospatiale - Connecteurs électriques circulaires à accouplement par bague filetée, résistant au feu ou non, températures d'utilisation - 65 °C à 175 °C continu, 200 °C continu, 260 °C en pointe - Partie 006 : Embase hermétique à fixation par écrou - Norme de produit

**Ta slovenski standard je istoveten z: EN 2997-006:2017**

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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 2997-006:2018**

**en,fr,de**

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EUROPEAN STANDARD

EN 2997-006

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2017

ICS 49.060

Supersedes EN 2997-006:2006

English Version

**Aerospace series - Connectors, electrical, circular, coupled  
by threaded ring, fire-resistant or non fire-resistant,  
operating temperatures - 65 °C to 175 °C continuous, 200  
°C continuous, 260 °C peak - Part 006: Hermetic jam-nut  
mounted receptacle - Product standard**

Série aérospatiale - Connecteurs électriques circulaires  
à accouplement par bague fileté, résistant au feu ou  
non, températures d'utilisation - 65 °C à 175 °C  
continu, 200 °C continu, 260 °C en pointe - Partie 006 :  
Embase hermétique à fixation par écrou - Norme de  
produit

Luft- und Raumfahrt - Elektrische Rundsteckverbinder  
mit Schraubkupplung, feuerbeständig oder nicht  
feuerbeständig, Betriebstemperaturen - 65 °C bis 175  
°C konstant, 200 °C konstant, 260 °C Spitze - Teil 006:  
Hermetischer fester Steckverbinder mit  
Mutterbefestigung - Produktnorm

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This European Standard was approved by CEN on 2 January 2017.

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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 2997-006:2017) 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 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 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.

This document supersedes EN 2997-006:2006.

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

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**EN 2997-006:2017 (E)****1 Scope**

This European Standard specifies the characteristics of hermetic jam-nut mounted receptacles in the family of circular electrical connectors coupled by threaded ring.

It applies to the class defined in Table 4.

For plugs and protective covers, see EN 2997-008 and EN 2997-009 respectively. For spare jam-nuts and O-rings, see EN 2997-012 and EN 2997-013 respectively.

**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 2997-001, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures - 65 °C to 175 °C continuous, 200 °C continuous, 260 °C peak — Part 001: Technical specification*

EN 2997-002, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures - 65 °C to 175 °C continuous, 200 °C continuous, 260 °C peak — Part 002: Specification of performance and contact arrangements*

EN 2997-008, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures - 65 °C to 175 °C continuous, 200 °C continuous, 260 °C peak — Part 008: Plug — Product standard*

EN 2997-009, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures - 65 °C to 175 °C continuous, 200 °C continuous, 260 °C peak — Part 009: Protective cover for receptacle — Product standard*

EN 2997-012, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures - 65 °C to 175 °C continuous, 200 °C continuous, 260 °C peak — Part 012: Jam-nut for jam-nut receptacles — Product standard*

EN 2997-013, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures - 65 °C to 175 °C continuous, 200 °C continuous, 260 °C peak — Part 013: O-ring seal for jam-nut receptacles — Product standard*

ISO 263, *ISO inch screw threads — General plan and selection for screws, bolts and nuts — Diameter range 0,06 to 6 in*

**3 Terms and definitions**

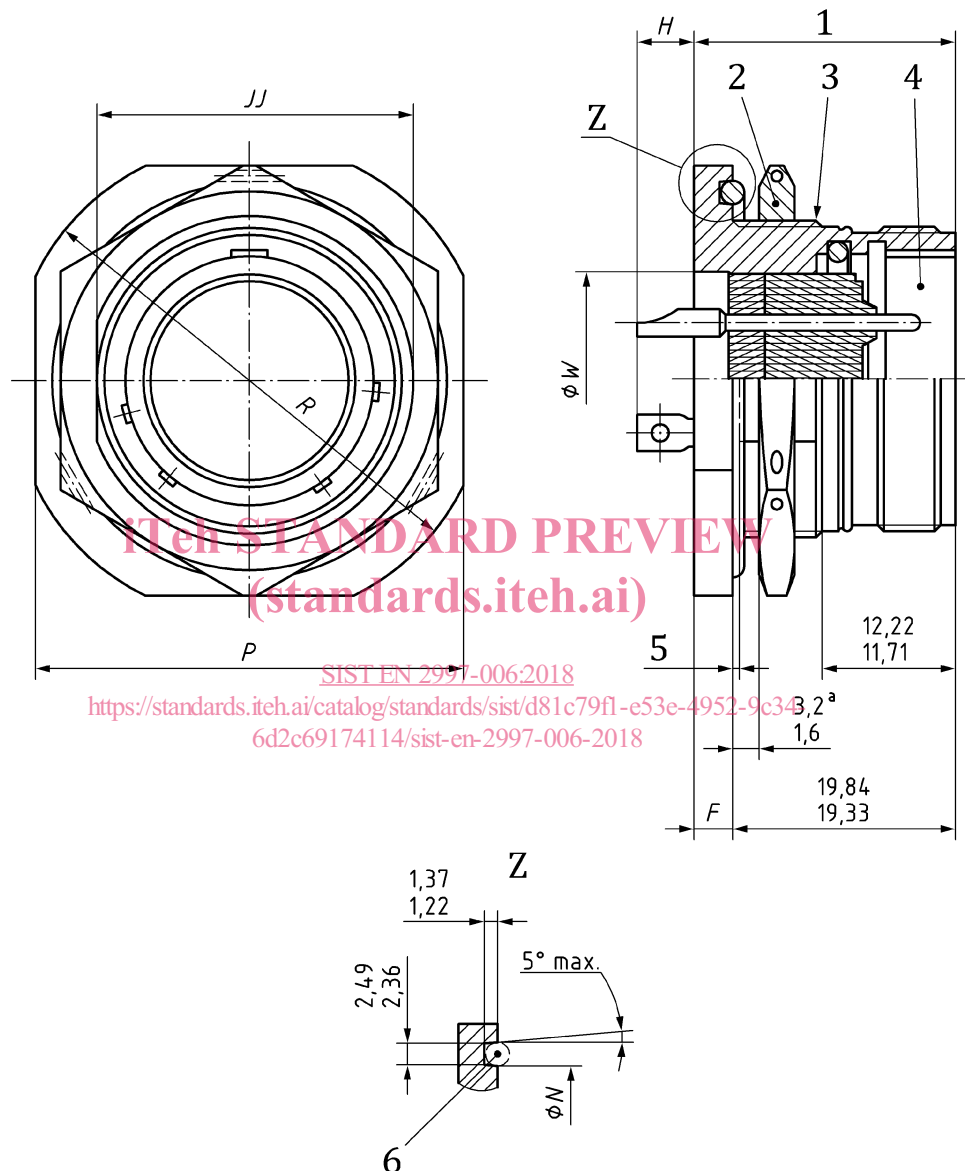
For the purposes of this document, the terms and definitions given in EN 2997-001 apply.

## 4 Required characteristics

### 4.1 Dimensions and mass

See Figure 1 and Table 1.

Dimensions are in millimetres; they apply after surface treatment.



#### Key

- 1 (23,32) shell sizes 08 to 2  
(23,60) shell sizes 22 to 280
- 2 See EN 2997-012
- 3 Thread  $K$
- 4 See EN 2997-001
- 5 End of flat 0,13 max
- 6 See EN 2997-013
- a Thickness of panel

Figure 1

Table 1

Housing size	F	H		K Thread class 2A <sup>a</sup>	ØN	P	R	ØW min.	J	Mass g max.
		Size contact 20	Size contacts 16 and 12							
08	3,48 2,46	4,57 3,05	5,33 3,81	0,6250-25UN	17,02 16,92	24,89 24,10	27,38 26,59	10,16	15,14 14,99	29
10	3,48 2,46			0,7500-20UNEF	20,22 20,12	28,04 27,25	30,28 29,49	10,44	18,31 18,16	37
12	3,48 2,46			0,9375-20UNEF	24,99 24,89	32,79 32,00	35,05 34,26	14,76	23,06 22,91	50
14	3,48 2,46			1,0000-20UNEF	26,57 26,47	35,33 34,54	38,51 37,72	16,51	24,66 24,51	58
16	3,48 2,46			1,1250-18UNEF	29,74 29,64	38,51 37,72	41,68 40,89	19,74	27,84 27,69	72
18	3,48 2,46			1,2500-18UNEF	32,92 32,82	41,68 40,89	44,86 44,07	21,95	30,99 30,84	79
20	3,48 2,46			1,3750-18UNEF	37,64 37,54	44,86 44,07	49,63 48,84	26,26	34,16 34,01	87
22	3,76 3,25	4,29 2,77	5,05 3,53	1,5000-18UNEF	40,87 40,77	49,63 48,84	52,78 51,99	28,78	37,34 37,19	108
24	3,76 3,25			1,6250-18UNEF	43,99 43,89	52,81 52,02	55,42 54,66	32,61	40,51 40,36	122
28	3,76 3,25			1,8750-16UNS	50,39 50,29	59,21 58,42	61,82 61,04	38,81	46,78 46,63	180

<sup>a</sup> ISO 263.

## 4.2 Tightening torque of attachment nut

For recommended service use, torque settings to be in accordance with Table 2.

Table 2

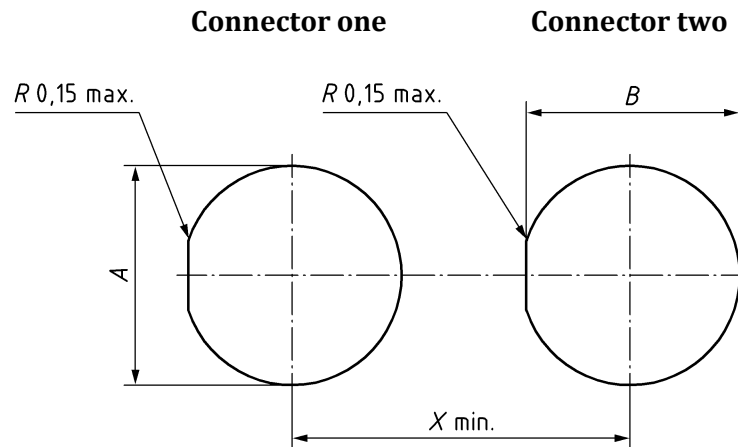
Housing size	Torque in Nm ± 10 %
08	7
10	10
12	12
14	15
16	18
18	22
20	25
22	27
24	29
28	30



### 4.3 Panel cut-out

See Figure 2 and Table 3.

Dimensions are in millimetres



$X$  min. value is calculated as follows:  $D/2$  connector one +  $D/2$  connector two. (See Table 3 for value  $D$ )

Figure 2

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Housing size	$\varnothing A$	$B$	$D$ min.
08	16,26	15,50	31,70
	16,00	15,24	
10	19,43	18,67	34,90
	19,17	18,41	
12	24,18	23,42	39,60
	23,92	23,16	
14	25,78	25,02	41,25
	25,52	24,76	
16	28,96	28,20	44,45
	28,70	27,94	
18	32,13	31,25	47,35
	31,87	30,99	
20	35,31	34,42	51,90
	35,05	34,16	
22	38,48	37,59	54,10
	38,22	37,33	
24	41,66	40,77	57,25
	41,40	40,51	
28	48,00	47,14	65,25
	47,75	46,88	