



# SLOVENSKI STANDARD SIST EN 3646-004:2009

01-maj-2009

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Aerospace series - Connectors, electrical, circular, bayonet coupling, operating temperature 175 °C or 200 °C continuous - Part 004: Receptacle, jam-nut mounting - Product standard

**STANDARD PREVIEW**

Luft- und Raumfahrt - Elektrische Rundsteckverbinder mit Bajonettkupplung, Betriebstemperatur 175 °C oder 200 °C konstant - Teil 004: Fester Steckverbinder mit Mutterbefestigung - Produktnorm

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Série aérospatiale - Connecteurs électriques circulaires à accouplement par baïonnettes, température d'utilisation 175 °C ou 200 °C continu - Partie 004 : Embase à fixation par écrou - Norme de produit

**Ta slovenski standard je istoveten z: EN 3646-004:2006**

### ICS:

49.060 Š^cp \ æš Ą^• [ |b \ æ Aerospace electric  
^|\ dā } æ ] !^ { æš Ą ã c { ã equipment and systems

**SIST EN 3646-004:2009**

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EUROPEAN STANDARD

EN 3646-004

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2006

ICS 49.060

English Version

Aerospace series - Connectors, electrical, circular, bayonet  
coupling, operating temperature 175 °C or 200 °C continuous -  
Part 004: Receptacle, jam-nut mounting - Product standard

Série aérospatiale - Connecteurs électriques circulaires à  
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Bajonettkupplung, Betriebstemperatur 175 °C oder 200 °C  
konstant - Teil 004: Fester Steckverbinder mit  
Mutterbefestigung - Produktnorm

This European Standard was approved by CEN on 3 February 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
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## Foreword

This European Standard (EN 3646-004:2006) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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 November 2006, and conflicting national standards shall be withdrawn at the latest by November 2006.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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**EN 3646-004:2006 (E)****1 Scope**

This standard defines the characteristics of the jam-nut mounted receptacles of the family of bayonet coupling circular connectors, intended for use in an operating temperature range of  $-65\text{ }^{\circ}\text{C}$  to  $175\text{ }^{\circ}\text{C}$  or  $200\text{ }^{\circ}\text{C}$  continuous.

It applies to models defined in Table 4.

For contact, filler plugs and rear accessories associated with this receptacle see EN 3646-002. For plugs and protective covers see EN 3646-008 and EN 3646-009 respectively.

**2 Normative references**

The following referenced documents are indispensable for the application 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.

ISO 3161, *Aerospace — UNJ threads — General requirements and limit dimensions.*

EN 3155-002, *Aerospace series — Electrical contacts used in elements of connection — Part 002: List and utilization of contacts.*

EN 3646-001, *Aerospace series — Connectors, electrical, circular, bayonet coupling, operating temperature  $175\text{ }^{\circ}\text{C}$  or  $200\text{ }^{\circ}\text{C}$  continuous — Part 001: Technical specification.*<sup>1)</sup>

EN 3646-002, *Aerospace series — Connectors, electrical, circular, bayonet coupling, operating temperature  $175\text{ }^{\circ}\text{C}$  or  $200\text{ }^{\circ}\text{C}$  continuous — Part 002: Specification of performance and contact arrangements.*

EN 3646-008, *Aerospace series — Connectors, electrical, circular, bayonet coupling, operating temperature  $175\text{ }^{\circ}\text{C}$  or  $200\text{ }^{\circ}\text{C}$  continuous — Part 008: Plug — Product standard.*

EN 3646-009, *Aerospace series — Connectors, electrical, circular, bayonet coupling, operating temperature  $175\text{ }^{\circ}\text{C}$  or  $200\text{ }^{\circ}\text{C}$  continuous — Part 009: Protective cover for receptacle — Product standard.*

**3 Terms and definitions**

For the purposes of this standard, the terms and definitions given in EN 3646-001 apply.

**4 Required characteristics****4.1 Dimensions and mass**

See Figure 1 and Table 1.

Dimensions and tolerances are in millimetres, they apply after surface treatment.

Interface mating and rear dimensions, see EN 3646-001.

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1) Published as AECMA Prestandard at the date of publication of this standard.

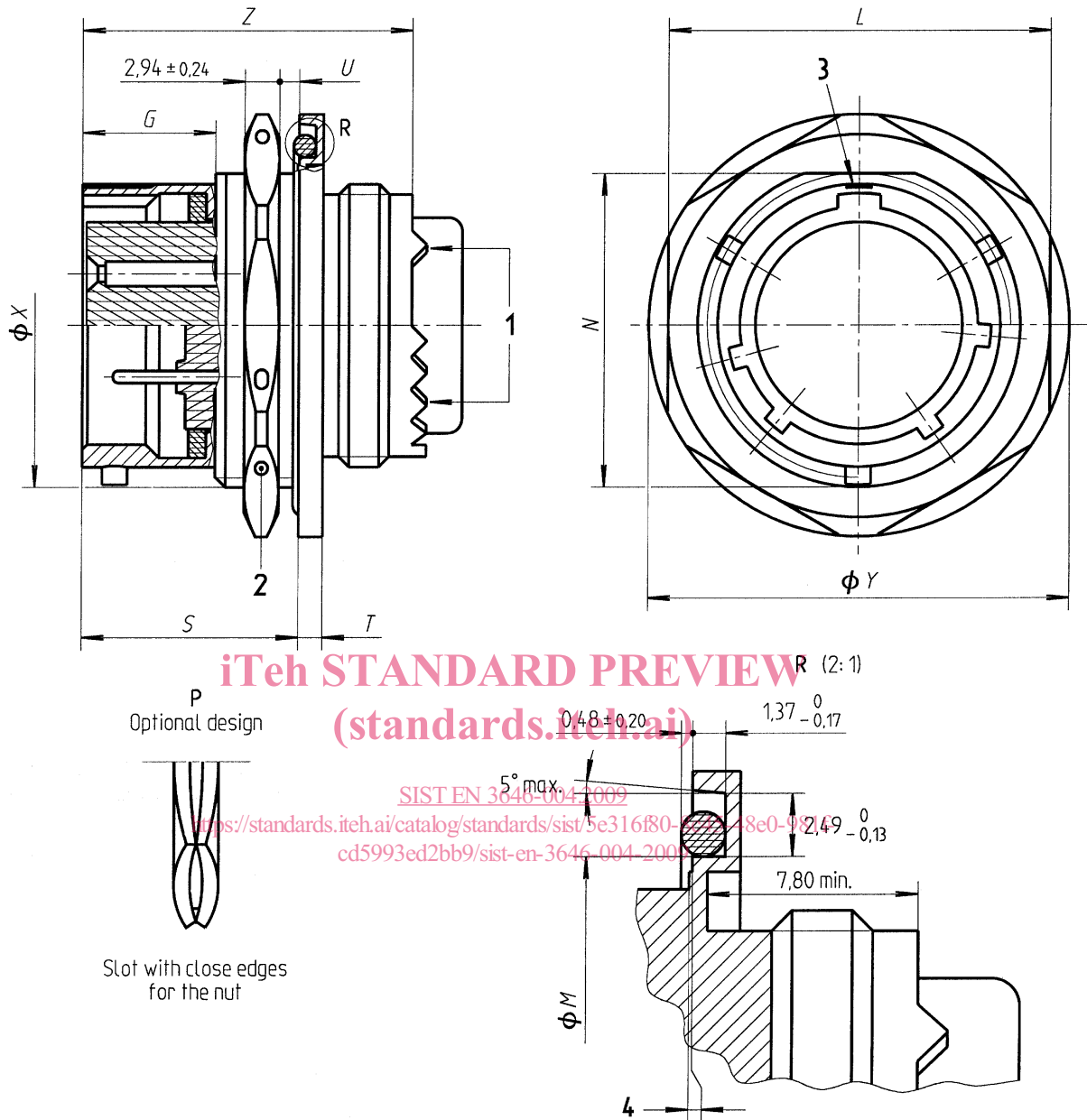


Figure 1 — Jam-nut mounted receptacle

## EN 3646-004:2006 (E)

Table 1

Housing size	<i>L</i>	<i>M</i>	<i>N</i>	<i>S</i>	<i>T</i>	<i>U</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	Mass <sup>b</sup> g max.
	max.	min.	$\begin{matrix} 0 \\ -0,25 \end{matrix}$				max.			
08	19,48	15,34	13,45	17,95	2,87 1,90	4,75 1,57	0,5625-24	23,30	25,90	6
10	22,66	18,52	16,64				0,6875-24	26,60		8
12	27,41	23,25	20,78				0,8750-20	31,35		11
14	30,61	26,45	23,93				1,0000-20	34,65		16
16	33,76	29,62	27,08				1,1250-18	37,70		21
18	36,96	32,80	30,25				1,2500-18	40,90		23
20	40,11	37,55	33,43	19,61	3,76 1,90	6,35	1,3750-18	45,65	27,50	29
22	43,31	40,75	36,60			1,57	1,5000-18	48,85		38
24	46,46	43,92	39,78	20,40		5,56 1,57	1,6250-18	52,00		42

<sup>a</sup> ISO 3161

<sup>b</sup> Mass without accessory and without contacts

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## 4.2 Tightening torque of attachment nut

See Table 2.

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Table 2

Housing size	Torque N.m ± 10 %
08	7
10	10
12	12
14	15
16	18
18	22
20	25
22	27
24	29

## 4.3 Panel cut-out

Recommended panel cut-out dimensions: see Figure 2 and Table 3.



Dimensions and tolerances are in millimetres.

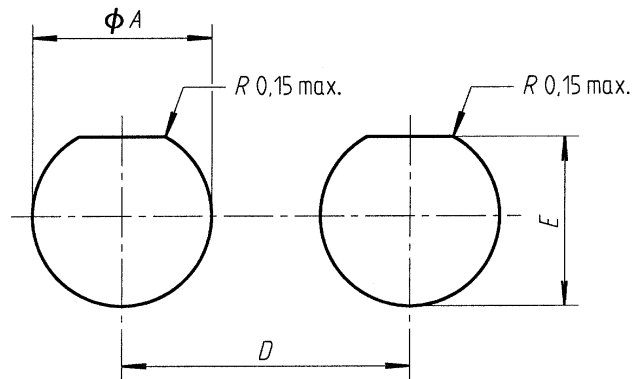


Figure 2

Table 3

Housing size	$A$ + 0,25 0	$D$ min.	$E$ + 0,25 0
08	14,40	32	13,48
10	17,58	35	16,66
12	22,60	38	20,80
14	25,52	41	23,95
16	28,70	45	27,10
18	31,87	47	30,27
20	35,05	51	33,45
22	38,22	53	36,62
24	41,40	57	39,80

#### 4.4 Material and surface treatment

See Table 4.

#### 4.5 Main general characteristics

See EN 3646-002.

#### 4.6 Possible combinations of plugs and receptacles

See EN 3646-002.