

# SLOVENSKI STANDARD

## SIST EN 3646-003:2018

01-november-2018

Nadomešča:

SIST EN 3646-003:2009

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**Aeronavtika - Konektorji, električni, okrogli, bajonetno sklapljanje, stalna delovna temperatura 175 °C ali 200 °C - 003. del: Spojnik s kvadratno montažno prirobnico - Standard za proizvod**

Aerospace series - Connectors, electrical, circular, bayonet coupling, operating temperature 175 °C or 200 °C continuous - Part 003: Receptacle, square flange mounting - Product standard

Luft- und Raumfahrt - Elektrische Rundsteckverbinder mit Bajonettkupplung, Betriebstemperatur 175 °C oder 200 °C konstant - Teil 003: Fester Steckverbinder mit quadratischem Montageflansch - Produktnorm

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Série aérospatiale - Connecteurs électriques circulaires à accouplement par baïonnettes, température d'utilisation 175 °C ou 200 °C continu - Partie 003: Embase à fixation par collerette carrée - Norme de produit

**Ta slovenski standard je istoveten z: EN 3646-003:2018**

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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 3646-003:2018**

**en,fr,de**

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EUROPEAN STANDARD

EN 3646-003

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2018

ICS 49.060

Supersedes EN 3646-003:2006

English Version

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coupling, operating temperature 175 °C or 200 °C  
continuous - Part 003: Receptacle, square flange mounting  
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Luft- und Raumfahrt - Elektrische Rundsteckverbinder  
mit Bajonettkupplung, Betriebstemperatur 175 °C oder  
200 °C konstant - Teil 003: Fester Steckverbinder mit  
quadratischem Montageflansch - Produktnorm

This European Standard was approved by CEN on 8 December 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: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN 3646-003:2018) 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 February 2019, and conflicting national standards shall be withdrawn at the latest by February 2019.

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 3646-003:2006.

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

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**EN 3646-003:2018 (E)****1 Scope**

This European Standard defines the characteristics of square flange receptacles of the family of bayonet coupling circular connectors, intended for use in an operating temperature range of – 65 °C to 175 °C or 200 °C continuous.

It applies to models defined in Table 3.

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 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 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 °C or 200 °C continuous — Part 001: Technical specification*

EN 3646-002, *Aerospace series — Connectors, electrical, circular, bayonet coupling, operating temperature 175 °C or 200 °C continuous — Part 002: Specification of performance and contact arrangements*

EN 3646-008, *Aerospace series — Connectors, electrical, circular, bayonet coupling, operating temperature 175 °C or 200 °C continuous — Part 008: Plug* SIST Product standard

EN 3646-009, *Aerospace series — Connectors, electrical, circular, bayonet coupling, operating temperature 175 °C or 200 °C continuous — Part 009: Protective cover for receptacle — Product standard*

**3 Terms and definitions**

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

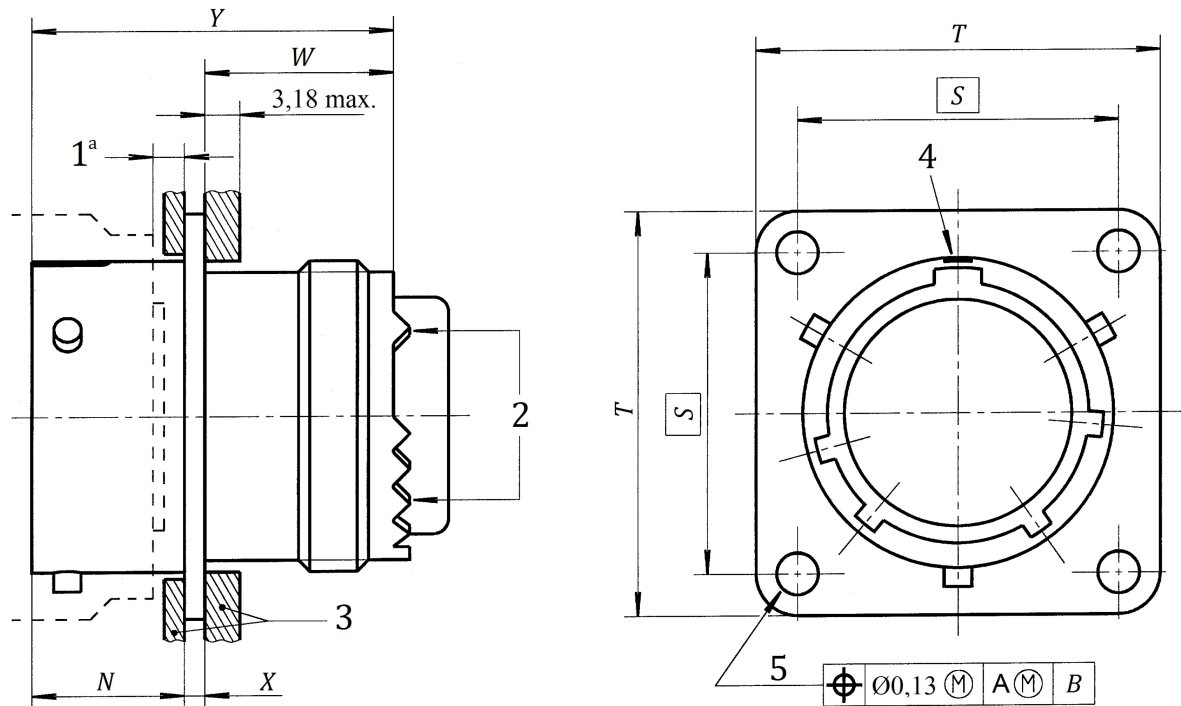
- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

**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.

**Key**

- 1 2,21 shells 08 to 18  
5,38 shells 20 to 24
- 2 According to variant
- a Maximum thickness of the support and the fixing screw heads for fitting the connector from the rear of the panel
- 3 Panel
- 4 Polarizing strip optional colour
- 5 Four holes diameter  $M$

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**Figure 1****Table 1**

Housing size	$M$	$N$	$S$	$T$	$X$	$Y$	$W$	Mass <sup>a</sup> g max.
	$\pm 0,15$	$+0,79$ $0$		max.		max.	min.	
08	3,15	10,95	15,10	21,03	1,45 0,86	25,50	11	6
10			18,26	24,23				10
12			20,62	26,59				13
14			23,01	28,98				16
16			24,61	31,34				22
18			26,97	33,73				26
20	3,73	14,12	29,36	36,91	2,25 1,09	27,30	10,14	33
22			31,75	40,10				39
24			34,92	43,27				49

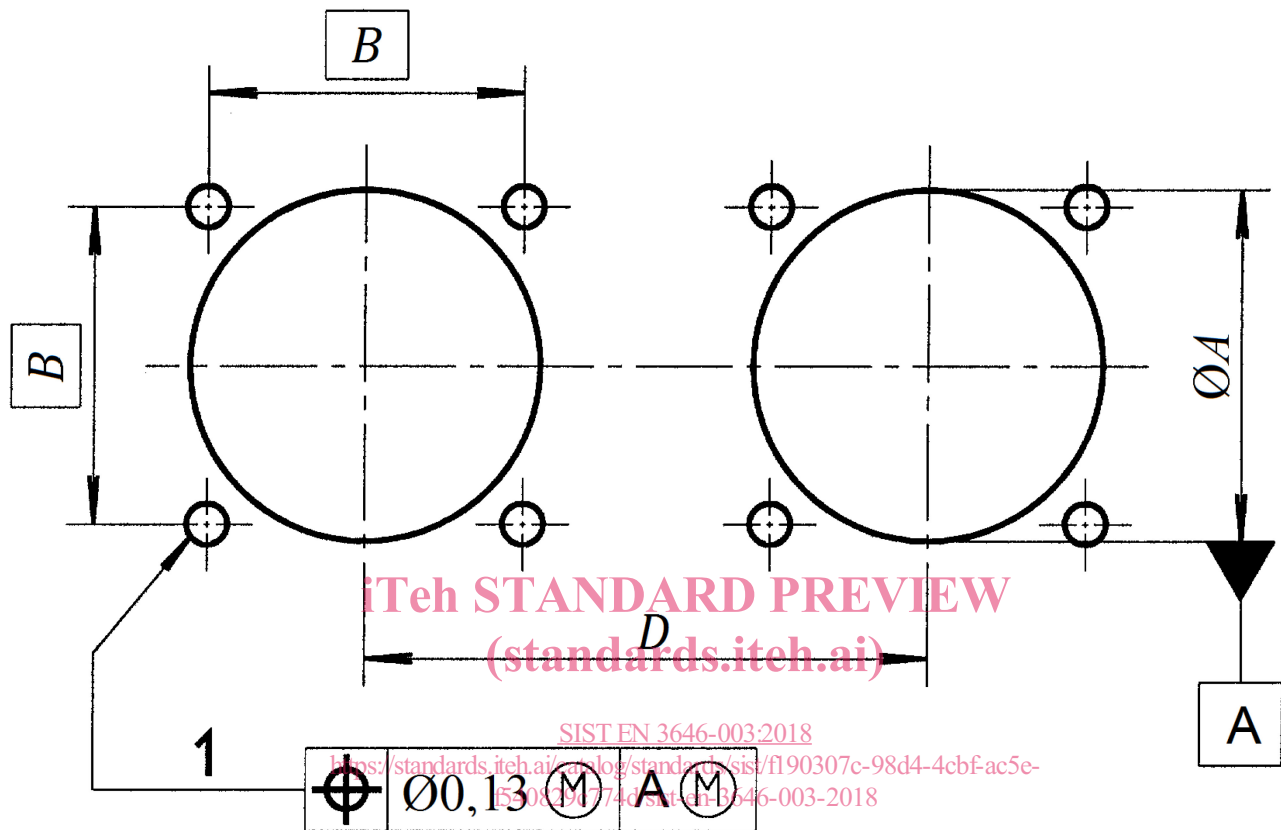
<sup>a</sup> Mass without accessory and without contacts.

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## 4.2 Panel cut-out

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

Dimensions and tolerances are in millimetres.



### Key

1 Four holes diameter  $C$

Figure 2

Table 2

Housing size	$\text{Ø}A$ $+0,25$ $0$	$B$	$\text{Ø}C$ $\pm 0,15$	$D$ min.
08	14,40	15,10	3,15	32
10	17,59	18,26		35
12	22,60	20,62		38
14	25,52	23,01		41
16	28,70	24,61		45
18	31,87	26,97		47
20	35,05	29,36		51
22	38,22	31,75	53	
24	41,40	34,92	3,73	57



### 4.3 Material and surface treatment

See Table 3.

### 4.4 Main general characteristics

See EN 3646-002.

### 4.5 Possible combinations of plugs and receptacles

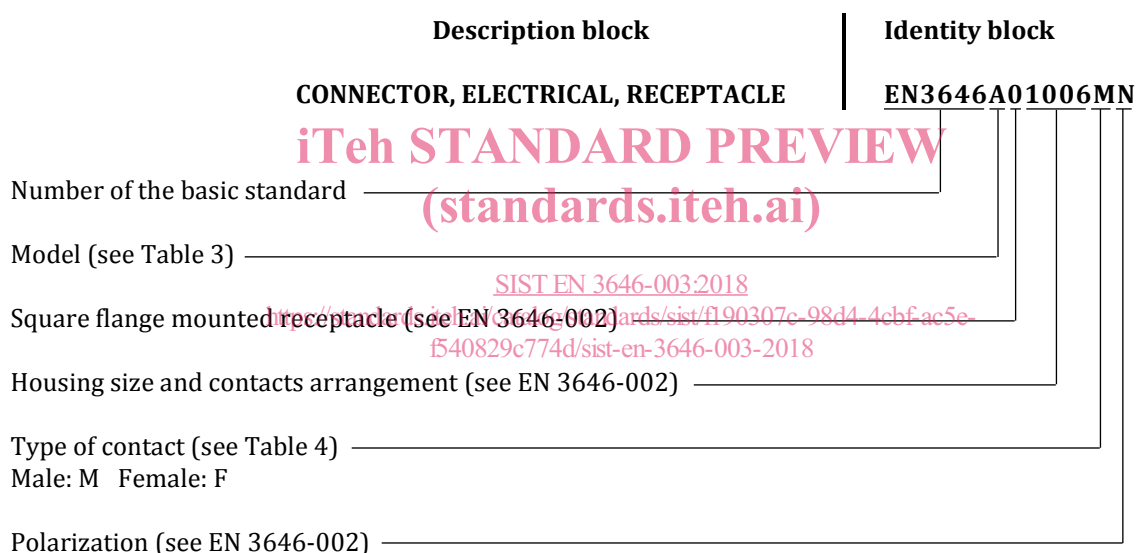
See EN 3646-002.

### 4.6 Electrical, mechanical and climatic characteristics

See EN 3646-002.

## 5 Designation

EXAMPLE



NOTE If necessary, the code I9005 shall be placed between the description block and the identity block.

**Table 3 — Connector models**

Model	Description
A	Sealed receptacles with housing (shell) in black anodized aluminium alloy with contacts – With three teeth at the rear of the connector – Maximum operating temperature 200 °C continuous
RS	Sealed receptacle with housing (shell) in nickel-plated aluminium alloy – Crimped contacts – With three teeth at the rear of the connector – Maximum operating temperature 200 °C continuous
WS	Sealed receptacles with housing (shell) in olive green cadmium alloy – Resistance to salt spray 500 h – Crimped contacts – With teeth over the entire periphery at the rear of the connector – Maximum operating temperature 175 °C continuous