

# SLOVENSKI STANDARD

## SIST EN 3646-005:2009

01-junij-2009

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**Aeronavtika - Konektorji, električni, okrogli, bajonetno sklapljanje, stalna delovna temperatura 175 °C ali 200 °C - 005. del: Spojnik, hermetičen, s kvadratno montažno prirobnico - Standard za proizvod**

Aerospace series - Connectors, electrical, circular, bayonet coupling, operating temperature 175 °C or 200 °C continuous - Part 005: Receptacle, hermetic, square flange mounting - Product standard

Luft- und Raumfahrt - Elektrische Rundsteckverbinder mit Bajonettkupplung, Betriebstemperatur 175 °C oder 200 °C konstant - Teil 005: Hermetischer fester Steckverbinder mit quadratischem Montageflansch - Produktnorm

[SIST EN 3646-005:2009](https://standards.iteh.ai/catalog/standards/sist/ded33666-b866-4325-9354-600000000000/sist-en-3646-005-2009)

Série aérospatiale - Connecteurs électriques circulaires à accouplement par baïonnettes, température d'utilisation 175 °C ou 200 °C continu - Partie 005 : Embase hermétique à fixation par collerette carrée - Norme de produit

**Ta slovenski standard je istoveten z: EN 3646-005:2006**

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**ICS:**

49.060

Letalska in vesoljska  
električna oprema in sistemi

Aerospace electric  
equipment and systems

**SIST EN 3646-005:2009**

**en,de**

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EUROPEAN STANDARD

EN 3646-005

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 -  
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konstant - Teil 005: Hermetischer fester Steckverbinder mit  
quadratischem Montageflansch - 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.

<https://standards.iteh.ai/catalog/standards/sist/ded33666-b866-4325-3646-005-2009>

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COMITÉ EUROPÉEN DE NORMALISATION  
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## Foreword

This European Standard (EN 3646-005:2006) 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 3646-005:2006 (E)****1 Scope**

This standard defines the characteristics of hermetic square flange receptacles in 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 3.

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.

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.*

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**3 Terms and definitions**

<https://standards.iteh.ai/catalog/standards/sist/ded33666-b866-4325-962b-93235a95edf7/sist-en-3646-005-2009>

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

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

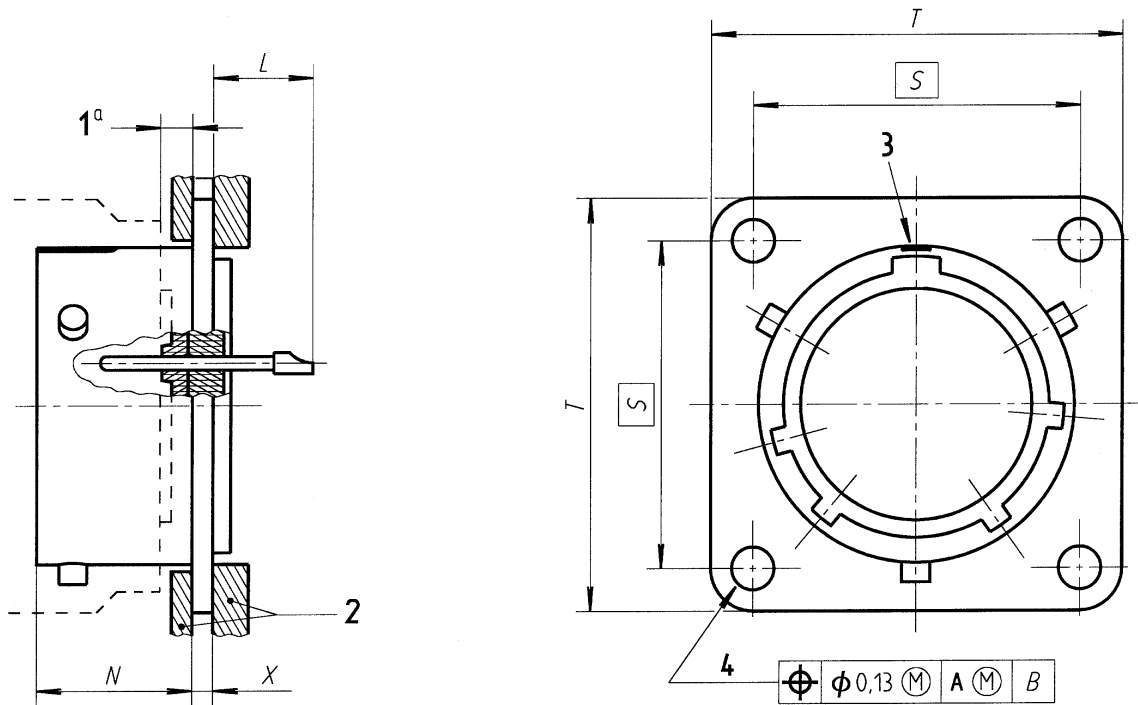
See Figure 1 and Table 1.

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

Interface mating dimensions, see EN 3646-001.

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



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#### Key

- 1 2,21 shells 08 to 18  
5,38 shells 20 to 24
- 2 Panel
- a Maximum thickness of the support and the fixing screw heads for mounting the connector from the rear of the panel
- b See EN 3646-001, Figures 1 and 3, for references A and B.
- 3 Polarizing strip optional colour
- 4 Four holes diameter  $M$

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Figure 1

Table 1

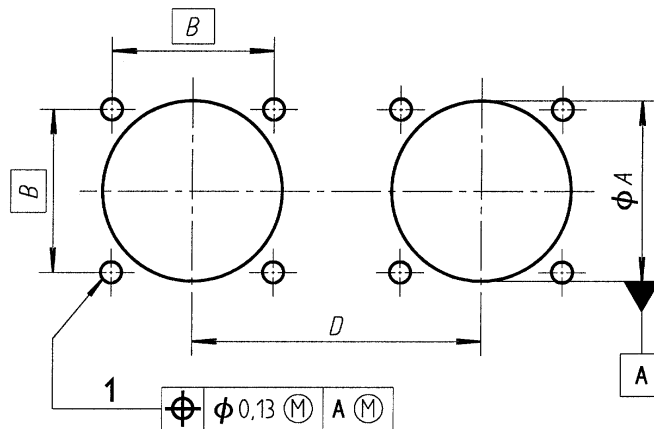
| Housing size | $L$<br>max. | $M$<br>$\pm 0,15$ | $N$<br>$\pm 0,55$ | $S$   | $T$<br>max. | $X$             | $Z$<br>$0$<br>$-0,30$ | Mass<br>g<br>max. |
|--------------|-------------|-------------------|-------------------|-------|-------------|-----------------|-----------------------|-------------------|
| 08           | 8,40        | 3,15              | 12,65             | 15,10 | 21,03       | $1,63 \pm 0,86$ | 14,30                 | 12                |
| 10           |             |                   |                   | 18,26 | 24,23       |                 | 17,10                 | 15                |
| 12           |             |                   |                   | 20,62 | 26,59       |                 | 19,90                 | 20                |
| 14           |             |                   |                   | 23,01 | 28,98       |                 | 23,50                 | 24                |
| 16           |             |                   |                   | 24,61 | 31,34       |                 | 26,25                 | 30                |
| 18           |             |                   |                   | 26,97 | 33,73       |                 | 29,40                 | 36                |
| 20           | 9,60        | 3,73              | 14,25             | 29,36 | 36,91       | $1,93 \pm 0,58$ | 31,80                 | 43                |
| 22           |             |                   |                   | 31,75 | 40,10       |                 | 35,00                 | 52                |
| 24           |             |                   |                   | 34,92 | 43,27       |                 | 38,20                 | 60                |

## EN 3646-005:2006 (E)

## 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**  
(standards.iteh.ai)

Table 2

| Housing size | A<br>$+0,25$<br>0 | B     | C<br>$\pm 0,15$ | D<br>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.

### 5 Designation

EXAMPLE

| Description block                                       | Identity block |
|---------------------------------------------------------|----------------|
| CONNECTOR, ELECTRICAL, RECEPTACLE                       | EN3646Y01006MN |
| Number of the basic standard                            |                |
| Model (see Table 3)                                     |                |
| Hermetic square flange receptacle (see EN 3646-002)     |                |
| Housing size and contacts arrangement (see EN 3646-002) |                |
| Type of contact M = male                                |                |
| Polarization (see EN 3646-002)                          |                |

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

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**Table 3 — Connectors models**

| Model | Description                                                                                                                               |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Y     | Hermetic receptacle with housing (shell) in passivated stainless steel, solder contacts – Maximum operating temperature 200 °C continuous |

### 6 Marking

Unless there are other specific contractual requirements, the marking shall include.

#### 6.1 Marking on the product

- the manufacturer's part number corresponding to the identity block as defined in Clause 5;
- the date of manufacture (year, week);
- the manufacturer's name or trade mark.