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**Aeronavtika - Električni kontakti za uporabo v veznih elementih - 043. del:**  
**Kontakti, električni, triaksialni, velikost 08, ženski 043, tip D, za spajkanje, razred P**  
**- Standard za proizvod**

Aerospace series - Electrical contacts used in elements of connection - Part 043:  
Contacts, electrical, triaxial, size 08, female 043, type D, solder, class P - Product  
standard

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen -  
Teil 043: Elektrische triaxiale, Buchsenkontakte 043, Größe 08, Typ D, zum Löten,  
Klasse P - Produktnorm

Série aérospatiale - ~~Contacts électriques utilisés dans les organes de connexion~~ - Partie  
043 : ~~Contacts électriques, triaxiaux, taille 08, femelles 043, type D, à souder, classe P~~  
Norme de produit

**Ta slovenski standard je istoveten z: EN 3155-043:2006**

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**ICS:**

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SIST EN 3155-043:2008

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English Version

**Aerospace series - Electrical contacts used in elements of connection - Part 043: Contacts, electrical, triaxial, size 08, female 043, type D, solder, class P - Product standard**

Série aérospatiale - Contacts électriques utilisés dans les organes de connexion - Partie 043 : Contacts électriques, triaxiaux, taille 08, femelles 043, type D, à souder, classe P - Norme de produit

Luft- und Raumfahrt - Elektrische Kontakte zur Verwendung in Verbindungselementen - Teil 043: Elektrische triaxiale, Buchsenkontakte 043, Größe 08, Typ D, zum Löten, Klasse P - Produktnorm

This European Standard was approved by CEN on 6 January 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.



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## Contents

Page

|                                                 |    |
|-------------------------------------------------|----|
| Foreword .....                                  | 3  |
| 1 Scope .....                                   | 4  |
| 2 Normative references .....                    | 4  |
| 3 Terms and definitions .....                   | 5  |
| 4 Required characteristics .....                | 5  |
| 4.1 Dimensions and mass .....                   | 5  |
| 4.2 Material, surface treatment of contact..... | 6  |
| 4.3 Permitted cables .....                      | 6  |
| 4.4 Tooling.....                                | 6  |
| 4.5 Test .....                                  | 7  |
| 4.6 Gauges.....                                 | 10 |
| 5 Designation .....                             | 11 |
| 6 Marking .....                                 | 11 |
| Annex A (normative) .....                       | 12 |

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## Foreword

This European Standard (EN 3155-043:2006) 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 October 2006, and conflicting national standards shall be withdrawn at the latest by October 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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## 1 Scope

This standard specifies the required characteristics and tests applicable to female triaxial contacts 043, size 08, type D, solder, class P, used in elements of connection according to EN 3155-002.

The associated male contacts are defined in EN 3155-042.

These contacts are derived from and are interchangeable with those of standard AS 39029/95.

## 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 2591\*, *Aerospace series — Elements of electrical and optical connection — Test methods.*

EN 3155-001, *Aerospace series — Electrical contacts used in elements of connection — Part 001: Technical specification.* <sup>1)</sup>

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

EN 3155-042, *Aerospace series — Electrical contacts used in elements of connection — Part 042: Contacts, electrical, triaxial, size 08, male 042, type D, solder, class P — Product standard.*

EN 3375-003, *Aerospace series — Cables, electrical, for signal data transmissions — Part 003: Cables, bifilar, single braid.* <sup>2)</sup>

EN 3375-004, *Aerospace series — Cables, electrical, for signal data transmissions — Part 004: Cables, bifilar, double braid.* <sup>2)</sup>

EN 3375-005, *Aerospace series — Cables, electrical, for signal data transmissions — Part 005: Cables, bifilar, double braid, high immunity.* <sup>2)</sup>

EN 4008-002, *Aerospace series — Elements of electrical and optical connection — Crimping tools and associated accessories — Part 002: List of product standards.*

MIL-I-81969, *Installing and removal tools, connector electrical contact, general specification for.* <sup>3)</sup>

AS 39029/95, *Contacts, electrical connector concentric twinax, socket, size 8 (for DOD-C-83527 connector).* <sup>4)</sup>

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\* All parts quoted in this standard.

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

2) In preparation at the date of publication of this standard.

3) Published by: Department of Defense (DOD), The Pentagon, Washington D.C. 20301, USA.

4) Published by: Society of Automotive Engineering (SAE), 400 Commonwealth Drive, Warrendale, PA 15096, USA.

### 3 Terms and definitions

For the purposes of this standard, the terms and definitions given in EN 3155-001 apply.

### 4 Required characteristics

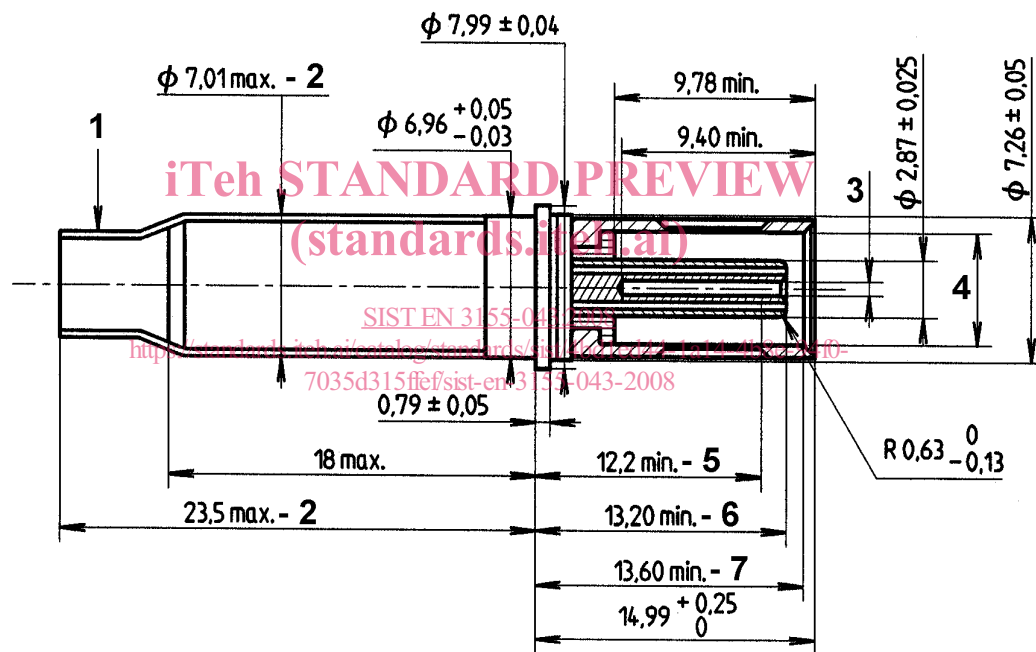
Type D contacts are contacts with screening feature and class P corresponds to an operating temperature range from  $-65\text{ }^{\circ}\text{C}$  to  $125\text{ }^{\circ}\text{C}$ .

#### 4.1 Dimensions and mass

See Figure 1 for dimensions and tolerances.

Dimensions are given in millimetres after treatment.

Total mass of contact: 4,80 g max.



#### Key

- 1 Heat shrinkable sleeve, the sealing sleeve is defined in Annex A.
- 2 After wiring
- 3 Diameter compatible with a centre pin diameter  $0,761 \pm 0,025$
- 4 Diameter compatible with an outer pin diameter  $5,540 \pm 0,025$
- 5 Point of contact with a flat ended gauge pin of diameter  $0,761 \pm 0,005$
- 6 End of intermediate male contact
- 7 Point of contact with a flat ended gauge pin of diameter  $5,540 \pm 0,005$

Figure 1

## 4.2 Material, surface treatment of contact

### 4.2.1 Body material

Copper alloy for the contact bodies.

### 4.2.2 Protection

Gold on an appropriate undercoat for copper alloy parts (selective protection permitted). Thickness of protection not specified.

## 4.3 Permitted cables

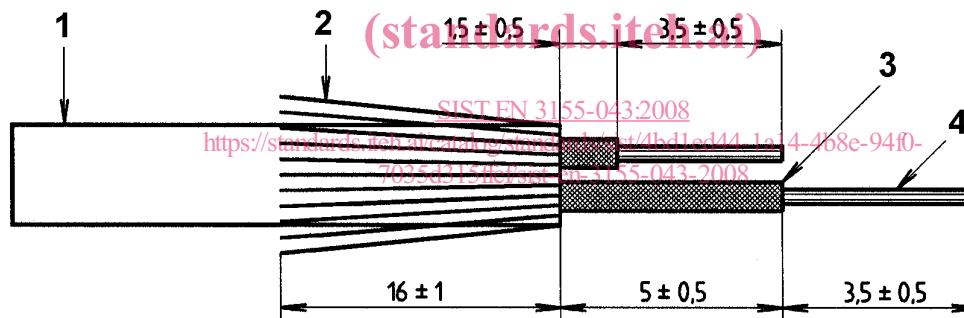
Single braided cable: in accordance with EN 3375-003  
 Double braided cable: in accordance with EN 3375-004  
 High immunity cable: in accordance with EN 3375-005

Code A, see Clause 5.

A single type of contact covers these three types of permitted cables.

For cable stripping, see Figure 2.

Dimensions and tolerances are in millimetres.



### Key

- 1 Sheath
- 2 Braiding
- 3 Isolation
- 4 Conductor

Figure 2

## 4.4 Tooling

Conform to MIL-I-81969.

- Insertion: not necessary
- Extraction tool: M81969/14-06
- Contact termination:  
 The contact termination tooling shall be defined in EN 4008-002.

## 4.5 Test

See Table 1.

Table 1

| EN 2591-     | Test                                               | Applicable               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
|--------------|----------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------------|--|---------|--------------------|-------------|----|--------------|--------------|-------------|-------------|--------|----------------|----|----|---|--------------|----|----|----|---|-------|-----|------|-----|----|
|              |                                                    | According to EN 3155-001 | Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| 101          | Visual examination                                 | X                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| 102          | Examination of dimensions and mass                 | X                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| 201          | Contact resistance - low level                     | X                        | <div>Cable used: 152 mm of cable as per EN 3375-003</div> <table><tr><th rowspan="2">Contact</th><th colspan="2">Maximum contact resistance<br/>mΩ</th></tr><tr><th>Initial</th><th>After tests</th></tr><tr><td>Centre</td><td>15</td><td>30</td></tr><tr><td>Intermediate</td><td>15</td><td>30</td></tr><tr><td>Outer</td><td colspan="2">Not applicable</td></tr></table>                                                                                                                                                                                  | Contact | Maximum contact resistance<br>mΩ |  | Initial | After tests        | Centre      | 15 | 30           | Intermediate | 15          | 30          | Outer  | Not applicable |    |    |   |              |    |    |    |   |       |     |      |     |    |
| Contact      | Maximum contact resistance<br>mΩ                   |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
|              | Initial                                            | After tests              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| Centre       | 15                                                 | 30                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| Intermediate | 15                                                 | 30                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| Outer        | Not applicable                                     |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| 202          | Contact resistance at rated current                | X                        | <div>Cable used: 152 mm of cable as per EN 3375-003</div> <table><tr><th rowspan="3">Contact</th><th colspan="3">Maximum contact resistance<br/>mΩ</th><th rowspan="3">Rated current<br/>A</th></tr><tr><th colspan="2">(23 + 3) °C</th><th>(125 + 3) °C</th></tr><tr><th>Initial</th><th>After tests</th><th>After tests</th></tr><tr><td>Centre</td><td>15</td><td>30</td><td>45</td><td>1</td></tr><tr><td>Intermediate</td><td>15</td><td>30</td><td>45</td><td>1</td></tr><tr><td>Outer</td><td>2,9</td><td>3,85</td><td>5,8</td><td>12</td></tr></table> | Contact | Maximum contact resistance<br>mΩ |  |         | Rated current<br>A | (23 + 3) °C |    | (125 + 3) °C | Initial      | After tests | After tests | Centre | 15             | 30 | 45 | 1 | Intermediate | 15 | 30 | 45 | 1 | Outer | 2,9 | 3,85 | 5,8 | 12 |
| Contact      | Maximum contact resistance<br>mΩ                   |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         | Rated current<br>A               |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
|              | (23 + 3) °C                                        |                          | (125 + 3) °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
|              | Initial                                            | After tests              | After tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| Centre       | 15                                                 | 30                       | 45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1       |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| Intermediate | 15                                                 | 30                       | 45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1       |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| Outer        | 2,9                                                | 3,85                     | 5,8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 12      |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |
| 204          | Discontinuity of contacts in the microsecond range | X                        | <div>Method B</div> <div>Duration of discontinuity: ≤ 100 ns</div> <div>Test duration: throughout the duration of tests EN 2591-402 and EN 2591-403</div>                                                                                                                                                                                                                                                                                                                                                                                                      |         |                                  |  |         |                    |             |    |              |              |             |             |        |                |    |    |   |              |    |    |    |   |       |     |      |     |    |

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