SLOVENSKI STANDARD
SIST EN 2591-415:2004

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Aerospace series - Elements of electrical and optical connection - Test methods - Part 415: Test probe damage (female contacts)

Aerospace series - Elements of electrical and optical connection - Test methods - Part 415: Test probe damage (female contacts)

Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 415: Beschädigung durch Prüfdorn (Buchsenkontakte)

Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 415 : Endommagement par sonde d'essai (contacts femelles)

Ta slovenski standard je istoveten z: **EN 2591-415:2001**

ICS:

49.060	Letalska in vesoljska elektriļ na oprema in sistemi	Aerospace electric equipment and systems

SIST EN 2591-415:2004 **en**

EUROPEAN STANDARD

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EN 2591-415

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This European Standard was approved by CEN on 4 June 2001.

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 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 Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries 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of an identical text or by endorsement, at the latest by May 2002, and conflicting national standards shall be withdrawn at the latest by May 2002.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies a method of checking that the female contacts used in elements of electrical and optical connection are not damaged by the insertion of a test probe.

It shall be used together with EN 2591-100.

2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 2591-100 Aerospace series – Elements of electrical and optical connection – Test methods – Part 100: General [1)]

EN 2591-418 Aerospace series – Elements of electrical and optical connection – Test methods – Part 418: Gauge insertion/extraction forces (female contact)

3 Preparation of specimens

3.1 The specimens shall be mounted into the insert and locked to prevent rotation.

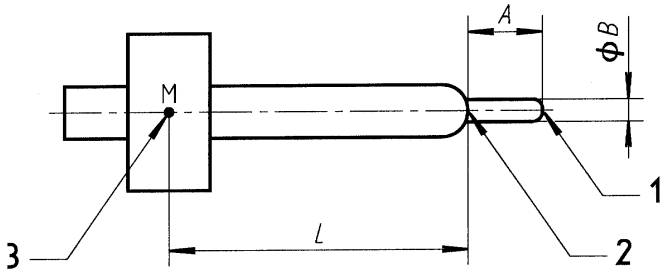
Other devices may be used to hold the specimens provided they simulate the insert.

3.2 Unless specified in the technical specification, the following details shall be stated:

- method of mounting;
- dimensions of the test probe;
- value of the bending moment;
- final measurements (if applicable).

4 Apparatus

Unless otherwise specified, the test probe (see figure 1) for each female contact size shall conform to the following requirements:



Key

1 Spherical end
2 Fulcrum
3 Centre of gravity

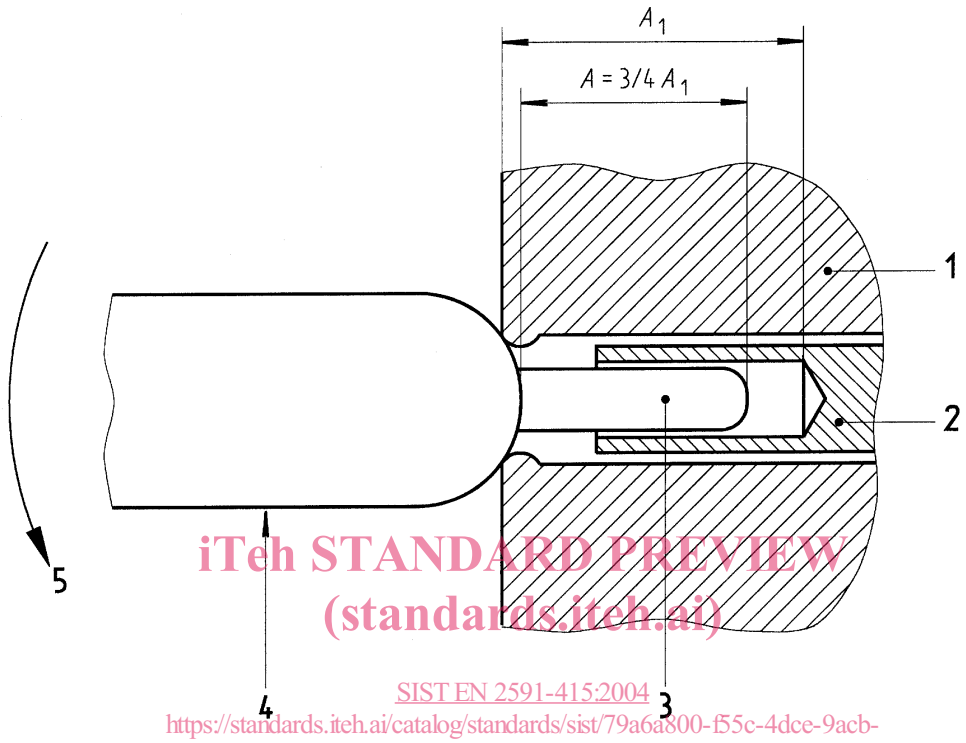
Figure 1 – Test probe

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

– the nominal diameter *B* shall be equivalent to the nominal diameter of the corresponding male contact;

– unless otherwise specified, the length *A* shall be equal to 3/4 of the depth A_1 (see figure 2) measured between the bottom of the female contact and the front face of the insert;

– the test probe shall be fixed in a handle of mass *m* and of length *L* sufficient for the application of the specified bending moment. The test probe shall be made from polished hardened steel.



Key

1 Insert
2 Female contact
3 Test probe
4 Handle
5 Bending moment

Figure 2 – Probe insertion

5 Method

5.1 Number of contacts to be measured per size

See table 1.

Table 1

Number of contacts	Number to be tested %
1 to 5	100
6 to 60	50 (with a minimum of 6 specimens)
61 to 130	25 (with a minimum of 31 specimens)
≥ 131	10 (with a minimum of 34 specimens)

5.2 Procedure

The test probe shall be fully inserted into the female contact which shall be held horizontaly. The specified constant bending moment shall be applied to it.

The insert shall be turned slowly at constant speed, around the longitudinal axis of the contact by 360°, applying the bending moment equally over the interior surface in contact with the end of the test probe.

This operation shall be repeated with the test probe introduced to a depth of 2/3 of *A*.

5.3 Final measurements (if applicable)

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