SLOVENSKI STANDARD
SIST EN 2591-207:2001

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Aerospace series - Elements of electrical and optical connection - Test methods - Part 207: Voltage proof test

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Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 207: Prüfung der Spannfestigkeit

Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 207: Essai de tenue en tension

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CEN

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).

The alphanumerical designation of the parts of EN 2591 has been abandoned for a numerical designation in line with the Internal Regulations of CEN/CENELEC. This European Standard is the integral reproduction of the European Standard EN 2591-B7 after application of this decision, without any other modification than the change in numbering.

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of an identical text or by endorsement, at the latest by August 1996, and conflicting national standards shall be withdrawn at the latest by August 1996.

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

1 Scope

This standard specifies the methods for the voltage proof test on the insulators of mated or unmated elements of connection.

It shall be used together with EN 2591.

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 Aerospace series - Elements of electrical and optical connection - Test methods - General

3 Preparation of specimens

3.1 The specimens shall be wired as specified in the technical specification. Tests shall be carried out on elements of connection which are mated or unmated in accordance with the technical specification. Unless otherwise specified in the test concerned, the specimens shall not be cleaned.

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

- test method to be used (A, B or C);
- elements of connection mated or unmated;
- r.m.s. value of the test voltage specified for the particular test, e.g. environmental, contamination, humidity, air pressure, temperature tests, etc.;
- maximum permissible leakage current, where applicable.

4 Methods

The a. c. test voltage indicated in the technical specification shall be applied for (60 ± 5) s per method A, B or C, as specified by the technical specification.

The test voltage shall have a 40 Hz to 60 Hz frequency and application rate shall not exceed 500 V/s.

4.1 Method A

The test voltage shall be applied in turn between each contact and all the others connected together and to the housing (shell) or the mounting plate.

4.2 Method B

Alternate contacts shall be connected together to form two groups, one including all even numbered contacts, the second all odd numbered contacts, for instance.

The test voltage shall be applied in turn between :

- the first group of contacts and the second group connected to the housing (shell) or the mounting plate;

- the second group of contacts and the first group connected to the housing (shell) or the mounting plate.

In the case of contacts arranged in two or more rows, it may be necessary to form a second arrangement of two groups in order to apply the voltage between all adjacent contacts.

4.3 Method C

The specimen shall be subjected to the test voltage between two adjacent contacts or between one contact and the housing (shell) having a minimum spacing.

4.4 Requirements

There shall be no breakdown or spark-over and the specified maximum leakage current shall not be exceeded when the test voltage is applied.