# SLOVENSKI STANDARD
# SIST EN 2591-322:2001

**01-januar-2001**

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**Aerospace series - Elements of electrical and optical connection - Test methods - Part 322: Hermeticity**

Aerospace series - Elements of electrical and optical connection - Test methods - Part 322: Hermeticity

Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 322: Hermetische Dichtheit



Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 322: Herméticité



**Ta slovenski standard je istoveten z:** **EN 2591-322:1998**

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**ICS:**

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

**SIST EN 2591-322:2001** **en**

# EUROPEAN STANDARD
# NORME EUROPÉENNE
# EUROPÄISCHE NORM

**EN 2591-322**

June 1998

ICS 49.060.00

Descriptors: aircraft industry, aircraft equipment, connecting equipment, test

English version

## Aerospace series - Elements of electrical and optical connection - Test methods - Part 322: Hermeticity

Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 322: Herméticité

Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 322: Hermetische Dichtheit

This European Standard was approved by CEN on 22 June 1997.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

**Central Secretariat: rue de Stassart, 36 B-1050 Brussels**

## 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 December 1998, and conflicting national standards shall be withdrawn at the latest by December 1998.



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 verifying the hermeticity between:

- housing (shell) and insert
- insert and contacts

of elements of connection exposed to a gas pressure difference.

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** Specimens shall be prepared according to the technical specification.

The receptacle shall be mounted on a test setup so designed that the differential pressure may be applied to either face.



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

- specimens unwired or wired;
- type of cable and definition of the specimen wiring (if applicable);
- test on one or two faces;
- requirement.

## 4 Method

### 4.1 Procedure

A differential pressure of 0,1 MPa shall be applied between the faces of the specimens in one direction or successively in both directions as specified.

The leakage rate shall be measured with a mass spectrometer using tracer gas (helium).

If both specimen faces have parts which may absorb helium, it is necessary to ensure, after testing one face, that absorption has been sufficiently neutralized before testing the other face.

If only one face has helium-absorbing parts, this face shall be tested last.

It is necessary to ensure that any leakage at the receptacle mounting junction is not taken into account in the measurements.

### 4.2 Requirement

The measured leakage rate shall not exceed 0,36 $mm^3/h$ unless otherwise specified.