



**SLOVENSKI STANDARD
SIST EN 2591-6318:2004**

01-maj-2004

Aerospace series - Elements of electrical and optical connection - Test methods - Part 6318: Optical elements - Fire resistance

Aerospace series - Elements of electrical and optical connection - Test methods - Part 6318: Optical elements - Fire resistance

Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 6318: Optische Verbindungselemente - Feuerbeständigkeit

Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 6318 : Organes optiques - Résistance au feu

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Ta slovenski standard je istoveten z: EN 2591-6318:2001

ICS:

49.060 Štejni in optični elementi za povezavo električnih in optičnih sistemov v letalski tehniki
Aerospace electric equipment and systems

SIST EN 2591-6318:2004

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 2591-6318

December 2001

ICS 49.060

English version

**Aerospace series - Elements of electrical and optical connection
- Test methods - Part 6318: Optical elements - Fire resistance**

Série aérospatiale - Organes de connexion électrique et
optique - Méthodes d'essais - Partie 6318: Organes
optiques - Résistance au feu

Luft- und Raumfahrt - Elektrische und optische
Verbindungselemente - Prüfverfahren - Teil 6318: Optische
Elemente - Feuerbeständigkeit

This European Standard was approved by CEN on 5 August 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.

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.

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

Management Centre: 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 June 2002, and conflicting national standards shall be withdrawn at the latest by June 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 determining the ability of optical connection elements (including permanent connections) and fibre optic couplers to resist flame.

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 2591-318	Aerospace series – Elements of electrical and optical connection – Test methods – Part 318: Fire-resistance
EN 2591-602	Aerospace series – Elements of electrical and optical connection – Test methods – Part 602: Optical elements – Variation of attenuation and optical discontinuity

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3 Preparation of specimens

3.1 Specimens shall be fitted with normal accessories and terminated in accordance with the product standard, using fire resistant optical cable/fibre, minimum length 450 mm.

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

See EN 2591-318 (if applicable) plus:

- type and length of cable/fibre;
- optical signal to be applied;
- maximum permissible variation of attenuation.

4 Apparatus

See EN 2591-318 and EN 2591-602 plus:

- mated and locked elements of connection.

4.1 Flame

See EN 2591-318.

4.2 Torch

See EN 2591-318.

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

EN 2591-6318:2001 (E)

5 Method

5.1 Initial measurements (if applicable)

They shall be conducted as prescribed by the technical specification.

5.2 Procedure

Connect the test specimen to LLS and LDS systems.

The test specimen shall be concurrently exposed to the flame and 100 m/s² vibrations of constant frequency between 30 Hz and 60 Hz.

5.2.1 Phase 1

During the first 5 min, measure continuously the variation of attenuation (EN 2591-602 – Method A) - Optical signal shall be assured.

5.2.2 Phase 2

The flame shall be applied for 14 min.

5.3 Final measurements and requirements

5.3.1 Phase 1

EN 2591-602 – Variation of attenuation

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5.3.2 Phase 2

No flame shall propagate across the optical connection elements.

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