



**SLOVENSKI STANDARD**  
**SIST EN 61300-2-7:1999**

01-maj-1999

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**Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-7: Tests - Bending moment (IEC 61300-2-7:1995)**

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-7: Tests - Bending moment

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Grundlegende Prüf- und Meßverfahren -- Teil 2-7: Prüfungen: Biegemoment

Dispositifs d'interconnexion et composants passifs à fibres optiques - Méthodes fondamentales d'essais et de mesures -- Partie 2-7: Essais - Moment de flexion

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**Ta slovenski standard je istoveten z: EN 61300-2-7:1997**

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**ICS:**

33.180.20	Povezovalne naprave za optična vlakna	Fibre optic interconnecting devices
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**en**

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English version

**Fibre optic interconnecting devices and passive components  
Basic test and measurement procedures  
Part 2-7: Tests - Bending moment  
(IEC 61300-2-7:1995)**

Dispositifs d'interconnexion et  
composants passifs à fibres optiques  
Méthodes fondamentales d'essais et  
de mesures  
Partie 2-7: Essais - Moment de flexion  
(CEI 61300-2-7:1995)

Lichtwellenleiter - Verbindungselemente  
und passive Bauteile - Grundlegende  
Prüf- und Meßverfahren  
Teil 2-7: Prüfungen: Biegemoment  
(IEC 61300-2-7:1995)

**SIST EN 61300-2-7:1999**

This European Standard was approved by CENELEC on 1997-07-01. CENELEC 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.

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CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## CENELEC

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

### Foreword

The text of the International Standard IEC 61300-2-7:1995, prepared by SC 86B, Fibre optic interconnecting devices and passive components, of IEC TC 86, Fibre optics, was submitted to the formal vote and was approved by CENELEC as EN 61300-2-7 on 1997-07-01 without any modification.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1998-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1998-06-01

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### Endorsement notice

The text of the International Standard IEC 61300-2-7:1995 was approved by CENELEC as a European Standard without any modification.

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Dispositifs d'interconnexion et composants  
passifs à fibres optiques –  
Méthodes fondamentales d'essais  
et de mesures –

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Partie 2-7:  
Essais – Moment de flexion

SIST EN 61300-2-7:1999

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Fibre optic interconnecting devices  
and passive components –

Basic test and measurement procedures –

Part 2-7:  
Tests – Bending moment

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International Electrotechnical Commission  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES  
AND PASSIVE COMPONENTS –  
BASIC TEST AND MEASUREMENT PROCEDURES –**

**Part 2-7: Tests – Bending moment**

**FOREWORD**

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

International Standard IEC 1300-2-7 has been prepared by sub-committee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

The text of this standard is based on the following documents:

DIS	Report on voting
86B/535/DIS	86B/618/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

IEC 1300 consists of the following parts, under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*:

Part 1: General and guidance

Part 2: Tests

Part 3: Examinations and measurements

# FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

## Part 2-7: Tests – Bending moment

### 1 General

#### 1.1 *Scope and object*

The purpose of this part of IEC 1300 is to ensure that the coupling mechanism of an optical connector set or other optical device combination will withstand a bending moment likely to be applied during normal service.

#### 1.2 *General description*

A bending moment is smoothly applied to a connector set or other device combination so as to bend its longitudinal axis.

### 2 Apparatus

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The apparatus consists of the following elements.

2.1 A force generator capable of smoothly applying the specified force at the specified rate.

2.2 A clamping device.

2.3 A torque wrench.

2.4 *Additional measuring equipment*

If the specimen is to operate during the test, then additional equipment and operating conditions shall be specified in the detail specification.

### 3 Procedure

#### 3.1 *Initial examination and measurement*

Perform initial examination and measurement.

3.2 Properly mate the connector set.

3.3 Securely clamp one connector half or the device under test.

3.4 Smoothly apply a force to the opposite connector half at the specified point of application and at the values specified in the detail specification.

3.5 Maintain the force for 10 s minimum.

3.6 If required in the detail specification, optical measurements (i.e. attenuation, return loss) shall be performed and the results shall be collected.

### 3.7 *Final examinations and measurements*

Unless otherwise specified, examine the devices and their parts in accordance with the requirements of IEC 1300-3-1. When required by the detail specification, other specified examinations and measurements shall be performed.

## 4 Severity

The severity consists of the combination of the magnitude of force and the point of application of the force relative to the clamping point. The severity shall be given in the detail specification.

## 5 Details to be specified

The following details, as applicable, shall be specified in the detail specification:

- Magnitude and rate of application of the force
- Direction(s) and point of application of the force (distance specified from the clamping point)
- Specimen optically functioning or non-functioning
- Pre-conditioning procedure
- Recovery procedure
- Initial examinations and measurements and performance requirements
- Examinations and measurements during test and performance requirements
- Final examinations and measurements and performance requirements
- Optical measurement method, if necessary
- Deviations from test procedure
- Additional pass/fail criteria