



SLOVENSKI STANDARD

SIST EN 61300-2-11:1999

01-maj-1999

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-11: Tests - Axial compression (IEC 61300-2-11:1995)

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-11: Tests - Axial compression

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Grundlegende Prüf- und Meßverfahren -- Teil 2-11: Prüfungen: Axialer Druck

Dispositifs d'interconnexion et composants passifs à fibres optiques - Méthodes fondamentales d'essais et de mesures -- Partie 2-11: Essais - Compression axiale

Ta slovenski standard je istoveten z: EN 61300-2-11:1997

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 2-11: Tests - Axial compression
(IEC 61300-2-11:1995)

Dispositifs d'interconnexion et
composants passifs à fibres optiques
Méthodes fondamentales d'essais et
de mesures
Partie 2-11: Essais - Compression axiale
(CEI 61300-2-11:1995)

Lichtwellenleiter - Verbindungselemente
und passive Bauteile - Grundlegende
Prüf- und Meßverfahren
Teil 2-11: Prüfungen - Axialer Druck
(IEC 61300-2-11:1995)

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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

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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 61300-2-11:1995, 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 61300-2-11 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

Endorsement notice

The text of the International Standard IEC 61300-2-11:1995 was approved by CENELEC as a European Standard without any modification.

**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC
1300-2-11**

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First edition
1995-07

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

**Partie 2-11:
Essais – Compression axiale**

**Fibre optic interconnecting devices
and passive components –
Basic test and measurement procedures –**

**Part 2-11:
Tests – Axial compression**

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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 2-11: Tests – Axial compression

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 1300-2-11 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/539/DIS	86B/642/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 2-11: Tests – Axial compression

1 General

1.1 *Scope and object*

The purpose of this part of IEC 1300 is to ensure that the captivation or the attachment of the cable to the fibre optic device will withstand compressive loads likely to be applied during normal service.

1.2 *General description*

The specimen is rigidly clamped and an axial compressive load is applied to the cable.

2 Apparatus

The apparatus consists of the following elements.

2.1 *Clamping device*

A suitable clamping device which grips a length of fibre optic cable over a distance equivalent to at least three times the cable diameter, and which is capable of providing an axial load without slipping, causing damage to the cable or increasing attenuation.

2.2 *Fixed clamping device*

A fixed clamping device capable of gripping the specimen without altering any of its mechanical properties.

2.3 *Force generator*

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

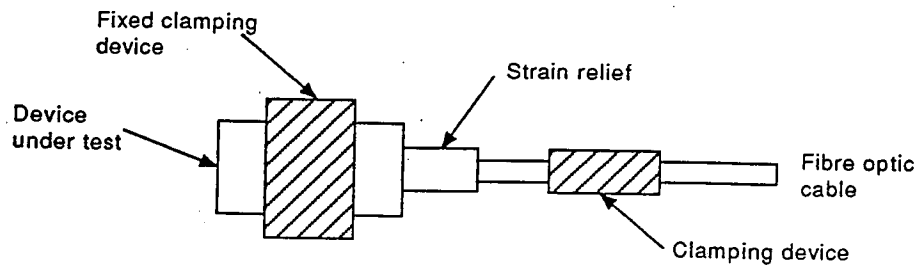
2.4 *Force gauge*

A suitable instrument for measuring the applied force being exerted between the specimen and the fibre optic cable.

3 Procedure

The specimen shall consist of a fully assembled optical component prepared in accordance with the detail specification. Unless otherwise specified, the specimen shall be subjected to the following test procedure in a non-operational mode.

3.1 Securely fix the device under test to the fixed clamping device. See figure 1 for an example of the test set-up.



IEC 562/95

Figure 1 - Test set-up

- 3.2 Clamp the cable at the specified point of application.
- 3.3 Smoothly apply the axial compressive load to the cable.
- 3.4 Maintain the load for 2 min. minimum.

3.5 Upon completion of the test, the specimen shall be examined and all necessary observations recorded as specified in the detail specification.

Careful attention shall be given to degradation of the optical signal, fibre breakage, and excessive movement of the cable relative to the specimen. The position of the point of application shall be such that the load is axially transmitted.

4 Severity

The severity consists of the magnitude of the axial compressive force. The severity shall be specified in the detail specification.

The following preferred severities are non-mandatory severities which may be specified for this procedure:

Load
N
5
10
20
50
100
200