
Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-10: Tests - Crush resistance (IEC 61300-2-10:1995)

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-10: Tests - Crush resistance

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Grundlegende Prüf- und Meßverfahren -- Teil 2-10: Prüfungen: Querdruck

Dispositifs d'interconnexion et composants passifs à fibres optiques - Méthodes fondamentales d'essais et de mesures -- Partie 2-10: Essais - Résistance à la compression

Ta slovenski standard je istoveten z: EN 61300-2-10:1997

ICS:

| | | |
|-----------|---------------------------------------|-------------------------------------|
| 33.180.20 | Povezovalne naprave za optična vlakna | Fibre optic interconnecting devices |
|-----------|---------------------------------------|-------------------------------------|

SIST EN 61300-2-10:1999**en**

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English version

Fibre optic interconnecting devices and passive components
Basic test and measurement procedures
Part 2-10: Tests - Crush resistance
(IEC 61300-2-10:1995)

Dispositifs d'interconnexion et
composants passifs à fibres optiques
Méthodes fondamentales d'essais et
de mesures
Partie 2-10: Essais - Résistance à la
compression
(CEI 61300-2-10:1995)

Lichtwellenleiter - Verbindungselemente
und passive Bauteile - Grundlegende
Prüf- und Meßverfahren
Teil 2-10: Prüfungen: Querdruck
(IEC 61300-2-10:1995)

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 61300-2-10:1995, 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 61300-2-10 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 61300-2-10:1995 was approved by CENELEC as a European Standard without any modification.

SIST EN 61300-2-10:1999

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC
1300-2-10**

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

ITeH STANDARD PREVIEW

Partie 2-10:

Essais – Résistance à la compression

SIST EN 61300-2-10:1999

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**Fibre optic interconnecting devices
and passive components –**

Basic test and measurement procedures –

Part 2-10:

Tests – Crush resistance

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-10: Tests – Crush resistance

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.
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International Standard IEC 1300-2-10 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/538/DIS | 86B/621/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 2-10: Tests – Crush resistance

1 General

1.1 Scope and object

The purpose of this part of IEC 1300 is to evaluate the effect of loads which might occur when fibre optic devices are exposed to critical situations such as being stepped on, being run over by vehicle tyres, etc.

1.2 General description

The specimen is exposed to a compressive load which is applied by a pad.

2 Apparatus

The apparatus consists of the following elements.

2.1 Box

A shallow box or tray, nominally 300 mm x 300 mm or as specified in the detail specification, capable of housing a section of a representative ground or floor surface.

2.2 Pad

A pad of resilient or rigid material, e.g. nominally 100 mm x 100 mm x 12 mm thick, or as specified in the detail specification, bonded to a non-yielding plate.

2.3 Force generator

The force generator may be any device or apparatus capable of smoothly applying the specified load at the specified rate.

2.4 Gauge

A suitable instrument for measuring the load applied to the specimen.

3 Procedure

3.1 Prepare the specimen in accordance with the detail specification. Unless otherwise specified, the specimen shall be subjected to the crush resistance test in a non-operational mode.

3.2 Position the specimen centrally on the test surface contained in the shallow box. Where more than one specimen is being tested, the relative position of the specimens and their position from the box wall shall be specified in the detail specification.

3.3 Place the pad over the specimen.

3.4 Smoothly apply the specified load to the pad.

3.5 Maintain the load for the specified duration.

3.6 Repeat the loading for the number of times specified in the detail specification.

3.7 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 the loss of optical continuity, broken parts, and damage to seals.

4 Severity

The severity consists of the combination of the load and the duration. 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 | Duration s |
|-----------|---------------|
| 50 | 1 |
| 100 | 5 |
| 200 | 10 |
| 500 | 60 |
| 1 000 | |
| 2 000 | |
| 5 000 | |

5 Details to be specified

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

- Representative ground or floor surface
- Pad material
- Load
- Duration of load
- Specimen orientation