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INTERNATIONAL STANDARD



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

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-10: Tests – Crush and load resistance

FOREWORD

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IEC 61300-2-10 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This third edition cancels and replaces the second edition published in 2012.

This edition includes the following significant technical changes with respect to the previous edition:

- a) addition of testing an evenly distributed static load applied on the top surface of a street cabinet;
- b) addition of testing a static load applied to a street cabinet door;
- c) addition of descriptions to perform the test at a specified temperature other as specified in the standard atmospheric conditions and addition of test temperature(s) in Table 1;
- d) update of the severities according to IEC 61753-1:2018.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
86B/4405/FDIS	86B/4435/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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

Part 2-10: Tests – Crush and load resistance

1 Scope

This part of IEC 61300 evaluates the effect of loads which ~~might~~ is possible to occur when fibre optic devices are exposed to critical situations such as being stepped on ~~or~~, being run over by vehicle tyres, when an evenly-distributed static load is applied to the top surface of a street cabinet or when a load is applied to a street cabinet's open door.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61300-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General and guidance*

IEC 61300-2-38, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-38: Tests – Sealing for pressurized fibre optic closures*

IEC 61300-3-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-1: Examinations and measurements – Visual examination*

IEC 61300-3-4, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-4: Examinations and measurements – Attenuation*

IEC 61300-3-6, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-6: Examinations and measurements – Return loss*

IEC 61753-1, *Fibre optic interconnecting devices and passive components – Performance standard – Part 1: General and guidance*

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

**Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures –
Partie 2-10: Essais – Résistance à la compression et à la charge**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING
DEVICES AND PASSIVE COMPONENTS –
BASIC TEST AND MEASUREMENT PROCEDURES –****Part 2-10: Tests – Crush and load resistance**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 2-10: Tests – Crush and load resistance

1 Scope

This part of IEC 61300 evaluates the effect of loads which is possible to occur when fibre optic devices are exposed to critical situations such as being stepped on, being run over by vehicle tyres, when an evenly-distributed static load is applied to the top surface of a street cabinet or when a load is applied to a street cabinet's open door.

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IEC 61300-3-4, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-4: Examinations and measurements – Attenuation*

IEC 61300-3-6, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-6: Examinations and measurements – Return loss*

IEC 61753-1, *Fibre optic interconnecting devices and passive components – Performance standard – Part 1: General and guidance*

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –

Partie 2-10: Essais – Résistance à la compression et à la charge

AVANT-PROPOS

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L'IEC 61300-2-10 a été établie par le sous-comité 86B: Dispositifs d'interconnexion et composants passifs à fibres optiques, du comité d'études 86 de l'IEC: Fibres optiques. Il s'agit d'une Norme internationale.

Cette troisième édition annule et remplace la deuxième édition parue en 2012.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

- a) ajout d'un essai avec une charge statique répartie uniformément à la surface supérieure d'une armoire d'environnement urbain;
- b) ajout d'un essai avec une charge statique appliquée sur la porte d'une armoire d'environnement urbain;
- c) ajout de descriptions pour effectuer l'essai à une température spécifiée autre que celle spécifiée dans les conditions atmosphériques normales et ajout de la (des) température(s) d'essai dans le Tableau 1;
- d) mise à jour des sévérités conformément à l'IEC 61753-1:2018.

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
86B/4405/FDIS	86B/4435/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Le présent document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/standardsdev/publications.

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DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –

Partie 2-10: Essais – Résistance à la compression et à la charge

1 Domaine d'application

La présente partie de l'IEC 61300 évalue les effets des charges susceptibles de se produire lorsque les dispositifs fibroniques sont exposés à des situations critiques telles que le piétinement ou l'écrasement par des pneus de véhicules, lorsqu'une charge statique répartie uniformément est appliquée à la surface supérieure d'une armoire d'environnement urbain ou lorsqu'une charge est appliquée sur la porte ouverte d'une armoire d'environnement urbain.

2 Références normatives

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IEC 61300-1, *Dispositifs d'interconnexion et composants passifs fibroniques - Procédures fondamentales d'essais et de mesure – Partie 1: Généralités et lignes directrices*

IEC 61300-2-38, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Procédures fondamentales d'essais et de mesure – Partie 2-38: Essais – Etanchéité pour les boîtiers à fibres optiques à surpression interne*

IEC 61300-3-1, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures – Partie 3-1: Examens et mesures – Examen visuel*

IEC 61300-3-4, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures – Partie 3-4: Examens et mesures – Affaiblissement*

IEC 61300-3-6, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures – Partie 3-6: Examens et mesures – Affaiblissement de réflexion*

IEC 61753-1, *Dispositifs d'interconnexion et composants passifs fibroniques – Norme de performance – Partie 1: Généralités et recommandations*