Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-9: Tests - Shock

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61300-2-9:2010 sisaldab Euroopa standardi EN 61300-2-9:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 61300-2-9:2010 consists of the English text of the European standard EN 61300-2-9:2010.
Standard on kinnitatud Eesti Standardikeskuse 31.12.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.12.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 03.12.2010.	Date of Availability of the European standard text 03.12.2010.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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EUROPEAN STANDARD

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English version

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-9: Tests - Shock

(IEC 61300-2-9:2010)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Méthodes fondamentales d'essais et de mesures - Partie 2-9: Essais - Chocs
(CEI 61300-2-9:2010)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Grundlegende Prüf- und Messverfahren - Teil 2-9: Untersuchungen und Messungen - Schock
(IEC 61300-2-9:2010)

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

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Foreword

The text of document 86B/3068/FDIS, future edition 2 of IEC 61300-2-9, prepared by SC 86B, Fibre optic interconnecting devices and passive components, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61300-2-9 on 2010-11-01.

This European Standard supersedes EN 61300-2-9:1997.

Specific technical changes from EN 61300-2-9:1997 are to reconsider the apparatus, procedure and severity.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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)	2011-08-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2013-11-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 61300-2-9:2010 was approved by CENELEC as a European Standard without any modification.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60068-2-27	-	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	-
IEC 61300-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 1: General and guidance	EN 61300-1	-
IEC 61300-3-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-1: Examinations and measurements - Visual examination	EN 61300-3-1	-
IEC 61300-3-3	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-3: Examinations and measurements - Active monitoring of changes in attenuation and return loss	EN 61300-3-3	-
IEC 61300-3-28	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-28: Examinations and measurements - Transient loss	EN 61300-3-28	-

CONTENTS

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

Part 2-9: Tests – Shock

1 Scope

This part of IEC 61300 defines a test method to reveal eventual mechanical weakness and/or degradation of fibre optic devices when subjected to non-repetitive mechanical shocks. It simulates infrequent non-repetitive shocks likely to be encountered in normal service or during transportation.

2 Normative references

The following referenced documents are indispensable for the application 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 60068-2-27, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

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

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 61300-3-3, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss*

IEC 61300-3-28, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-28: Examinations and measurements – Transient loss*

3 General description

A device under test (DUT) is mounted on the table of the shock-testing machine and is subjected to half-sinusoidal shock pulses. The DUT is exposed to two or three shock pulses applied in each direction of three mutually perpendicular axes. The test is conducted in accordance with IEC 60068-2-27.

4 Apparatus

4.1 Shock machine

The shock machine may be of the free fall, resilient rebound, nonresilient, hydraulic, compressed gas or other activating types. A shock testing machine is capable of generating a half-sinusoidal excitation. The shock machine shall be capable of generating a calibrated acceleration .