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Standards

Irish Standard
I.S. EN 61753-053-2:2014

Fibre optic interconnecting devices and passive components - Performance standard
- Part 053-2: Non-connectorized single-mode fibre, electrically controlled, variable optical attenuator for category C - Controlled environments

I.S. EN 61753-053-2:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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This document is based on:

EN 61753-053-2:2014

Published:

2014-07-18

*This document was published
under the authority of the NSAI
and comes into effect on:*

2014-08-06

ICS number:

NOTE: If blank see CEN/CENELEC cover page

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EUROPEAN STANDARD

EN 61753-053-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2014

ICS 33.180.20

English Version

**Fibre optic interconnecting devices and passive components -
Performance standard - Part 053-2: Non-connectorized single-
mode fibre, electrically controlled, variable optical attenuator for
category C - Controlled environments
(IEC 61753-053-2:2014)**

Dispositifs d'interconnexion et composants passifs à fibres
optiques - Norme de performance - Partie 053-2:
Affaiblisseur optique variable commandé électriquement, à
fibres unimodales non connectorisé pour la catégorie C -
Environnements contrôlés
(CEI 61753-053-2:2014)

Lichtwellenleiter - Verbindungselemente und passive
Bauteile - Betriebsverhalten - Teil 053-2: Nicht mit
Steckverbindern versehene, elektrisch kontrolliert
änderbare optische Dämpfungsglieder für Einmodenfasern
für die Kategorie C - Kontrollierte Umgebung
(IEC 61753-053-2:2014)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

The text of document 86B/3645/CDV, future edition 1 of IEC 61753-053-2, 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 approved by CENELEC as EN 61753-053-2:2014.

The following dates are fixed:

- latest date by which the document has to be implemented at (dop) 2015-01-23
national level by publication of an identical national
standard or by endorsement
- latest date by which the national standards conflicting with (dow) 2017-04-23
the document have to be withdrawn

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60793-2-50	-	Optical fibres -- Part 2-50: Product specifications - Sectional specification for class B single-mode fibres	EN 60793-2-50	-
IEC 60794-2-50	-	Optical fibre cables -- Part 2-50: Indoor cables - Family specification for simplex and duplex cables for use in terminated cable assemblies	EN 60794-2-50	-
IEC 60869-1	-	Fibre optic interconnecting devices and passive components - Fibre optic passive power control devices -- Part 1: Generic specification	EN 60869-1	-
IEC 61300	series	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures	EN 61300	series
IEC 61300-2-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-1: Tests - Vibration (sinusoidal)	EN 61300-2-1	-
IEC 61300-2-4	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-4: Tests - Fibre/cable retention	EN 61300-2-4	-
IEC 61300-2-9	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-9: Tests - Shock	EN 61300-2-9	-
IEC 61300-2-14	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-14: Tests - High optical power	+AC EN 61300-2-14	2011 -
IEC 61300-2-17	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-17: Tests - Cold	EN 61300-2-17	-

IEC 61300-2-18	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-18: Tests - Dry heat - High temperature endurance	EN 61300-2-18	-
IEC 61300-2-19	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-19: Tests - Damp heat (steady state)	EN 61300-2-19	-
IEC 61300-2-22	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-22: Tests - Change of temperature	EN 61300-2-22	-
IEC 61300-2-42	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-42: Tests - Static side load for strain relief	EN 61300-2-42	-
IEC 61300-3-2	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-2: Examinations and measurements - Polarization dependent loss in a single-mode fibre optic device	EN 61300-3-2	-
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 61300-3-7 (mod)	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-7: Examinations and measurements - Wavelength dependence of attenuation and return loss of single mode components	EN 61300-3-7	-
IEC 61300-3-14	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-14: Examinations and measurements - Accuracy and repeatability of the attenuation settings of a variable attenuator	+FprAA EN 61300-3-14	2011 -
IEC 61300-3-21	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-21: Examinations and measurements - Switching time	FprEN 61300-3-21	-
IEC 61753-1	2007	Fibre optic interconnecting devices and passive components performance standard -- Part 1: General and guidance for performance standards	EN 61753-1	2007
IEC/TR 62343-6-5	-	Dynamic modules - Part 6-5: Design guide - Investigation of operating mechanical shock and vibration tests for dynamic modules	-	-



IEC 61753-053-2

Edition 1.0 2014-03

INTERNATIONAL STANDARD

**Fibre optic interconnecting devices and passive components – Performance
standard –
Part 053-2: Non-connectorized, single-mode fibre, electrically controlled,
variable optical attenuator for category C – Controlled environments**



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IEC 61753-053-2

Edition 1.0 2014-03

INTERNATIONAL STANDARD

Fibre optic interconnecting devices and passive components – Performance standard –

Part 053-2: Non-connectorized, single-mode fibre, electrically controlled, variable optical attenuator for category C – Controlled environments

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE

M

ICS 33.180.20

ISBN 978-2-8322-1485-5

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CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references	5
3 Terms and definitions	6
4 Test conditions	6
5 Test report.....	7
6 Reference components.....	7
7 Performance requirements	7
7.1 Dimensions	7
7.2 Test details and requirements	7
Annex A (normative) Sample size	11
Bibliography.....	12
Table 1 – Single-mode spectral bands	7
Table 2 – Test details and requirements	8
Table A.1 – Number of samples for each test.....	11

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES AND
PASSIVE COMPONENTS – PERFORMANCE STANDARD –**
**Part 053-2: Non-connectorized, single-mode fibre, electrically controlled,
variable optical attenuator for category C – Controlled environments**
FOREWORD

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International Standard IEC 61753-053-2 has been prepared by subcommittee 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:

CDV	Report on voting
86B/3645/CDV	86B/3719/RVC

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61753 series, published under the general title *Fibre optic interconnecting devices and passive components – performance standard*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
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- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – PERFORMANCE STANDARD –

Part 053-2: Non-connectorized, single-mode fibre, electrically controlled, variable optical attenuator for category C – Controlled environments

1 Scope

This part of IEC 61753 contains the minimum initial test and measurement requirements and severities which non-connectorized single-mode fibre electrically controlled variable optical attenuator needs to satisfy in order to be categorised as meeting the requirements of category C-Controlled environments, as defined in Annex A of IEC 61753-1:2007.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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IEC 60794-2-50, *Optical fibre cables – Part 2-50: Indoor cables – Family specification for simplex and duplex cables for use in terminated cable assemblies*

IEC 60869-1, *Fibre optic interconnecting devices and passive components – Fibre optic passive power control devices – Part 1: Generic specification*

IEC 61300 (all parts), *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*

IEC 61300-2-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-1: Tests – Vibration (sinusoidal)*

IEC 61300-2-4, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-4: Tests – Fibre/cable retention*

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IEC 61300-2-14, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-14: Tests – High optical power*

IEC 61300-2-17, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-17: Tests – Cold*

IEC 61300-2-18, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-18: Tests – Dry heat – High temperature endurance*

IEC 61300-2-19, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-19: Tests – Damp heat (steady state)*

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