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Standards

Irish Standard  
I.S. EN 60794-2-51:2014

Optical fibre cables - Part 2-51: Indoor cables  
- Detail specification for simplex and duplex  
cables for use in cords for controlled  
environment

**I.S. EN 60794-2-51:2014**

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*This document is based on:*

EN 60794-2-51:2014

*Published:*

2014-07-25

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

2014-08-27

ICS number:

NOTE: If blank see CEN/CENELEC cover page

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EUROPEAN STANDARD

**EN 60794-2-51**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2014

ICS 33.180.10

English Version

**Optical fibre cables - Part 2-51: Indoor cables - Detail  
specification for simplex and duplex cables for use in cords for  
controlled environment  
(IEC 60794-2-51:2014)**

Câbles à fibres optiques - Partie 2-51: Câbles intérieurs -  
Spécification particulière pour les câbles simplex et duplex  
pour usage en cordons en environnement contrôlé  
(CEI 60794-2-51:2014)

Lichtwellenleiterkabel - Teil 2-51: LWL-Innenkabel -  
Bauartspezifikation für Simplex- und Duplexkabel zur  
Verwendung in Kabeln für kontrollierte  
Umgebungsbedingungen  
(IEC 60794-2-51:2014)

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## **Foreword**

The text of document 86A/1599/FDIS, future edition 1 of IEC 60794-2-51, prepared by SC 86A "Fibres and cables" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60794-2-51:2014.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-04-15
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-07-15

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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.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60793-2-10	2011	Optical fibres -- Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres	EN 60793-2-10	2011
IEC 60793-2-50	2012	Optical fibres -- Part 2-50: Product specifications - Sectional specification for class B single-mode fibres	EN 60793-2-50	2013
IEC 60794-1-1	-	Optical fibre cables -- Part 1-1: Generic specification - General	EN 60794-1-1	-
IEC 60794-1-2	-	Optical fibre cables -- Part 1-2: Generic specification - Cross reference table for optical cable test procedures	EN 60794-1-2	-
IEC 60794-1-22	-	Optical fibre cables -- Part 1-22: Generic specification - Basic optical cable test procedures - Environmental test methods	EN 60794-1-22	-
IEC 60794-2-50	2008	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	2008
IEC 60811-201	-	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 201: General tests - Measurement of insulation thickness	EN 60811-201	-
IEC 61753-1	-	Fibre optic interconnecting devices and passive components performance standard -- Part 1: General and guidance for performance standards	EN 61753-1	-
IEC/TR 62225	-	Guidance on terms for connectors and mechanical structures in electronic equipment	-	-

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**IEC 60794-2-51**

Edition 1.0 2014-06

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**



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**Optical fibre cables –  
Part 2-51: Indoor cables – Detail specification for simplex and duplex cables for  
use in cords for controlled environment**

**Câbles à fibres optiques –  
Partie 2-51: Câbles intérieurs – Spécification particulière pour les câbles simplex  
et duplex pour usage en cordons en environnement contrôlé**





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**IEC 60794-2-51**

Edition 1.0 2014-06

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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## **Optical fibre cables –**

**Part 2-51: Indoor cables – Detail specification for simplex and duplex cables for use in cords for controlled environment**

## **Câbles à fibres optiques –**

**Partie 2-51: Câbles intérieurs – Spécification particulière pour les câbles simplex et duplex pour usage en cordons en environnement contrôlé**

INTERNATIONAL  
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PRICE CODE  
CODE PRIX



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ICS 33.180.10

ISBN 978-2-8322-1636-1

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## OPTICAL FIBRE CABLES –

**Part 2-51: Indoor cables –  
Detail specification for simplex and duplex cables  
for use in cords for controlled environment**

## FOREWORD

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International Standard IEC 60794-2-51 has been prepared by subcommittee 86A, Fibres and cables, of IEC technical committee 86: Fibre optics.

The text of this standard is based on the following documents:

FDIS	Report on voting
86A/1599/FDIS	86A/1607/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.

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

A list of all parts of IEC 60794 series, published under the general title *Optical fibre cables*, 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

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## OPTICAL FIBRE CABLES –

### Part 2-51: Indoor cables – Detail specification for simplex and duplex cables for use in cords for controlled environment

#### 1 Scope

This part of IEC 60794 is a detail specification. It gives detailed requirements for cables to be used in cords which are intended for use in a category C environment, according to IEC 61753-1. They are characterized with temperature range between  $-10\text{ °C}$  and  $+60\text{ °C}$ .

The fibre requirements for this specification are defined in IEC 60793-2-10 for multimode fibres and IEC 60793-2-50 for single-mode fibres.

Some deviation to family specification IEC 60794-2-50 requirements is allowed in certain clauses of this specification.

#### 2 Normative references

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IEC 60793-2-10:2011, *Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres*

IEC 60793-2-50:2012, *Optical fibres – Part 2-50: Product specifications – Sectional specification for category B single-mode fibre*

IEC 60794-1-1, *Optical fibre cables – Part 1-1: Generic specification – General*

IEC 60794-1-2, *Optical fibre cables – Part 1-2: Generic specification – Cross reference table for optical cable test procedures*

IEC 60794-1-22, *Optical fibre cables – Part 1-22: Generic specification – Basic optical cable test procedures – Environmental test methods*

IEC 60794-2-50:2008, *Optical fibre cables – Part 2-50: Indoor cables – Family specification for simplex and duplex cables for use in terminated cable assemblies*

IEC 60811-201, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 201: General tests – Measurement of insulation thickness*

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

IEC TR 62222, *Fire performance of communication cables installed in buildings*

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

##### 3.1

##### **reinforced cable**

cables containing one or two buffered fibres with further protection provided by non metallic strength members and surrounded by a sheath of suitable material

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