

INTERNATIONAL STANDARD



**Optical fibre cables –
Part 2-31: Indoor cables – Detailed specification for optical fibre ribbon cables
for use in premises cabling**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

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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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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

International Standard IEC 60794-2-31 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

This third edition cancels and replaces the second edition published in 2012. It constitutes a technical revision.

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

- a) incorporation of the OM5 cabled fibre performance category;
- b) incorporation of the OS1a cabled fibre performance category;
- c) cabled fibre performance categories OM1, OM2 and OS1 are no longer normative, and are retained for information.

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

FDIS	Report on voting
86A/1923/FDIS	86A/1933/RVD

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

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

A list of all the parts in the IEC 60794 series, published under the general title *Optical fibre cables*, can be found on the IEC website.

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OPTICAL FIBRE CABLES –

Part 2-31: Indoor cables – Detailed specification for optical fibre ribbon cables for use in premises cabling

1 Scope

This part of IEC 60794 presents the detailed requirements specific to ~~indoor optical fibre ribbon cables~~ this type of cable to ensure compatibility with the series of International Standards ISO/IEC 11801, *Information technology – Generic cabling for customer premises* (Parts 1 to 6).

The requirements of family specification IEC 60794-2-30 are applicable to cables covered by this document.

The particular requirements detailed in Clause 4 define either a specific option in relation to the requirements of IEC 60794-2-30 or additional requirements.

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.

~~NOTE—They complete the normative references already listed in the generic specification (IEC 60794-1-1[1]¹ and IEC 60794-1-2) and in the sectional specification (IEC 60794-2- [2]) or in the family specification (IEC 60794-2-30).~~

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

IEC 60793-2-50:2008 2018, *Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres*

IEC 60794-1-1:2015, *Optical fibre cables – Part 1-1: Generic specification – General*

~~IEC 60794-1-2, *Optical fibre cables – Part 1-2: Generic specification – Basic optical cable test procedures*~~

IEC 60794-2-10:2011, *Optical fibre cables – Part 2-10: Indoor optical fibre cables – Family specification for simplex and duplex cables*

IEC 60794-2-30:2008, *Optical fibre cables – Part 2-30: Indoor cables – Family specification for ribbon cables*

~~ISO/IEC 11801, *Information technology – Generic cabling for customers premises*~~

¹—Numbers in square brackets refer to the Bibliography

² Edition 7 under preparation. Stage at the time of publication: IEC DECFDIS 60793-2-10:2019.

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibre cables –

**Part 2-31: Indoor cables – Detailed specification for optical fibre ribbon cables
for use in premises cabling**

Câbles à fibres optiques –

**Partie 2-31: Câbles intérieurs – Spécification particulière pour les câbles à fibres
optiques en ruban utilisés dans le câblage de locaux**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –**Part 2-31: Indoor cables –
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IEC 60793-2-10:—, *Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres*¹

IEC 60793-2-50:2018, *Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres*

IEC 60794-1-1:2015, *Optical fibre cables – Part 1-1: Generic specification – General*

IEC 60794-2-10:2011, *Optical fibre cables – Part 2-10: Indoor optical fibre cables – Family specification for simplex and duplex cables*

IEC 60794-2-30, *Optical fibre cables – Part 2-30: Indoor cables – Family specification for ribbon cables*

¹ Edition 7 under preparation. Stage at the time of publication: IEC DECFDIS 60793-2-10:2019.

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

CÂBLES À FIBRES OPTIQUES –

**Partie 2-31: Câbles intérieurs –
Spécification particulière pour les câbles à fibres optiques
en ruban utilisés dans le câblage de locaux**

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La Norme internationale IEC 60794-2-31 a été établie par le sous-comité 86A: Fibres et câbles, du comité d'études 86 de l'IEC: Fibres optiques.

La présente troisième édition annule et remplace la deuxième édition parue en 2012. Elle constitue une révision technique.

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

- a) l'intégration de la catégorie de performance de fibres câblées OM5;
- b) l'intégration de la catégorie de performance de fibres câblées OS1a;

- c) les catégories de performance de fibres câblées OM1, OM2 et OS1 ne sont plus normatives, et sont conservées pour information.

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

FDIS	Rapport de vote
86A/1923/FDIS	86A/1933/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette Norme internationale.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2.

Une liste de toutes les parties de la série IEC 60794, publiées sous le titre général *Câbles à fibres optiques*, peut être consultée sur le site web de l'IEC.

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CÂBLES À FIBRES OPTIQUES –

Partie 2-31: Câbles intérieurs – Spécification particulière pour les câbles à fibres optiques en ruban utilisés dans le câblage de locaux

1 Domaine d'application

La présente partie de l'IEC 60794 fournit les exigences particulières spécifiques à ce type de câble dont l'objet est d'assurer la compatibilité avec la série de Normes internationales: ISO/IEC 11801, *Technologies de l'information – Câblage générique des locaux d'utilisateurs* (Parties 1 à 6).

Les exigences contenues dans la spécification de famille IEC 60794-2-30 sont applicables aux câbles couverts par le présent document.

Les exigences particulières contenues dans l'Article 4 définissent soit des options spécifiques relatives aux exigences de l'IEC 60794-2-30, soit des exigences complémentaires.

2 Références normatives

Les documents suivants sont cités dans le texte de sorte qu'ils constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60793-2-10:—, *Fibres optiques – Partie 2-10: Spécifications de produits – Spécification intermédiaire pour les fibres multimodales de la catégorie A1*¹

IEC 60793-2-50:2018, *Fibres optiques – Partie 2-50: Spécifications de produits – Spécification intermédiaire pour les fibres unimodales de classe B*

IEC 60794-1-1:2015, *Câbles à fibres optiques – Partie 1-1: Spécification générique – Généralités*

IEC 60794-2-10:2011, *Câbles à fibres optiques – Partie 2-10: Câbles intérieurs à fibres optiques – Spécification de famille pour les câbles simplex et duplex*

IEC 60794-2-30, *Câbles à fibres optiques – Partie 2-30: Câbles intérieurs – Spécification de famille pour les câbles à rubans*

¹ Edition 7 en cours d'élaboration. Stade au moment de la publication: IEC DECFDIS 60793-2-10:2019.