

<b>STN</b>	<b>Optické káble</b> <b>Časť 2-50: Vnútorne káble</b> <b>Skupinová špecifikácia simplex- a duplex-káblov</b> <b>určených na použitie ako prepojovacie káble</b>	<b>STN</b> <b>EN IEC 60794-2-50</b>  35 9223
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Optical fibre cables - Part 2-50: Indoor cables - Family specification for simplex and duplex cables for use in terminated cable assemblies

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/23

Obsahuje: EN IEC 60794-2-50:2023, IEC 60794-2-50:2023

Oznámením tejto normy sa od 05.05.2026 ruší  
STN EN IEC 60794-2-50 (35 9223) z júla 2020



EUROPEAN STANDARD

**EN IEC 60794-2-50**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2023

ICS 33.180.10

Supersedes EN IEC 60794-2-50:2020

English Version

**Optical fibre cables - Part 2-50: Indoor cables - Family  
specification for simplex and duplex cables for use in terminated  
cable assemblies  
(IEC 60794-2-50:2023)**

Câbles à fibres optiques - Partie 2-50: Câbles intérieurs -  
Spécification de famille pour les câbles simplex et duplex  
utilisés dans les câbles assemblés équipés  
(IEC 60794-2-50:2023)

Lichtwellenleiterkabel - Teil 2-50: LWL-Innenkabel -  
Familienspezifikation für Simplex- und Duplexkabel für den  
Einsatz in konfektionierten Kabeln  
(IEC 60794-2-50:2023)

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**EN IEC 60794-2-50:2023 (E)****European foreword**

The text of document 86A/2284/FDIS, future edition 3 of IEC 60794-2-50, 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 IEC 60794-2-50:2023.

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) 2024-02-05
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-05-05

This document supersedes EN IEC 60794-2-50:2020 and all of its amendments and corrigenda (if any).

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**Endorsement notice**

The text of the International Standard IEC 60794-2-50:2023 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60793-1-1 NOTE Approved as EN IEC 60793-1-1

IEC 61753-1 NOTE Approved as EN IEC 61753-1

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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 1 Where 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.cencenelec.eu](http://www.cencenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60793-1-20	-	Optical fibres - Part 1-20: Measurement methods and test procedures - Fibre geometry	EN 60793-1-20	-
IEC 60793-1-21	-	Optical fibres - Part 1-21: Measurement methods and test procedures - Coating geometry	EN 60793-1-21	-
IEC 60793-1-32	-	Optical fibres - Part 1-32: Measurement methods and test procedures - Coating strippability	EN IEC 60793-1-32	-
IEC 60793-1-40	-	Optical fibres - Part 1-40: Attenuation measurement methods	EN IEC 60793-1-40	-
IEC 60793-1-46	-	Optical fibres - Part 1-46: Measurement methods and test procedures - Monitoring of changes in optical transmittance	EN 60793-1-46	-
IEC 60793-2-10	-	Optical fibres - Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres	EN IEC 60793-2-10	-
IEC 60793-2-50	-	Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres	EN IEC 60793-2-50	-
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 - Basic optical cable test procedures - General guidance	EN IEC 60794-1-2	-
IEC 60794-1-21	-	Optical fibre cables - Part 1-21: Generic specification - Basic optical cable test procedures - Mechanical tests methods	EN 60794-1-21	-
IEC 60794-1-22	-	Optical fibre cables - Part 1-22: Generic specification - Basic optical cable test procedures - Environmental test methods	EN IEC 60794-1-22	-

**EN IEC 60794-2-50:2023 (E)**

IEC 60794-1-23	-	Optical fibre cables - Part 1-23: Generic specification - Basic optical cable test procedures - Cable element test methods	EN IEC 60794-1-23	-
IEC 60794-1-211	-	Optical fibre cables - Part 1-211: Generic specification - Basic optical cable test procedures - Environmental test methods - Sheath shrinkage, method F11	EN IEC 60794-1-211	-
IEC 60794-2	-	Optical fibre cables - Part 2: Indoor cables - Sectional specification	EN 60794-2	-
IEC 60811-202	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 202: General tests - Measurement of thickness of non-metallic sheath	EN 60811-202	-
IEC 60811-203	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 203: General tests - Measurement of overall dimensions	EN 60811-203	-





IEC 60794-2-50

Edition 3.0 2023-03

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



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

**Câbles à fibres optiques –  
Partie 2-50: Câbles intérieurs – Spécification de famille pour les câbles simplex  
et duplex utilisés dans les câbles assemblés équipés**





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IEC 60794-2-50

Edition 3.0 2023-03

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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## Optical fibre cables –

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

## Câbles à fibres optiques –

**Partie 2-50: Câbles intérieurs – Spécification de famille pour les câbles simplex et duplex utilisés dans les câbles assemblés équipés**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## OPTICAL FIBRE CABLES –

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

## FOREWORD

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IEC 60794-2-50 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics. It is an International Standard.

This third edition cancels and replaces the second edition published in 2020. This edition constitutes a technical revision.

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

- a) added IEC 60793-1-46 and IEC 60794-1-211 to the normative references;
- b) changed the load duration for the tensile test from 5 min to 10 min;
- c) clarified the distance between the clamps for torsion test to 125 times cable diameter, but not less than 0,3 m;

- d) recommended the temperatures  $-10\text{ °C}$  and  $+60\text{ °C}$  for indoor simplex and duplex cables and included the low and high temperatures for category C, C<sup>HD</sup>, OP and OP<sup>HD</sup> according to the operating service environments in IEC 61753-1 for temperature cycling and shrinkage testing;
- e) updated the shrinkage test standard to IEC 60794-1-211, F11A, and changed the requirement to maximum 20 mm;
- f) replaced the text for the fire performance with an improved description.

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

Draft	Report on voting
86A/2284/FDIS	86A/2316/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
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## INTRODUCTION

This document includes test methods according to IEC 60794-1-21, IEC 60794-1-22 and IEC 60794-1-23 that will be split into single documents and individually renumbered in the IEC 60794-1-1xx series, IEC 60794-1-2xx series and IEC 60794-1-3xx series. Full cross-reference details are given in IEC 60794-1-2.

## OPTICAL FIBRE CABLES –

### Part 2-50: Indoor cables – Family specification for simplex and duplex cables for use in terminated cable assemblies

#### 1 Scope

This part of IEC 60794 is a family specification that specifies requirements for simplex and duplex optical fibre cables for use in terminated cable assemblies or as used for termination of passive components.

#### 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 60793-1-20, *Optical fibres – Part 1-20: Measurement methods and test procedures – Fibre geometry*

IEC 60793-1-21, *Optical fibres – Part 1-21: Measurement methods and test procedures – Coating geometry*

IEC 60793-1-32, *Optical fibres – Part 1-32: Measurement methods and test procedures – Coating strippability*

IEC 60793-1-40, *Optical fibres – Part 1-40: Attenuation measurement methods*

IEC 60793-1-46, *Optical fibres – Part 1-46: Measurement methods and test procedures – Monitoring of changes in optical transmittance*

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

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

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 – Basic optical cable test procedures – General guidance*

IEC 60794-1-211, *Optical fibre cables – Part 1-211: Generic specification – Basic optical cable test procedures – Environmental test methods – Sheath shrinkage, method F11*

IEC 60794-1-21, *Optical fibre cables – Part 1-21: Generic specification – Basic optical cable test procedures – Mechanical tests methods*

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



IEC 60794-1-23, *Optical fibre cables – Part 1-23: Generic specification – Basic optical cable test procedures – Cable element test methods*

IEC 60794-2, *Optical fibre cables – Part 2: Indoor cables – Sectional specification*

IEC 60811-202, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 202: General tests – Measurement of thickness of non-metallic sheath*

IEC 60811-203, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 203: General tests – Measurement of overall dimensions*

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