SLOVENSKI STANDARD
SIST EN 60794-2:2018

01-januar-2018

Nadomešča:
SIST EN 60794-2:2004

Optični kabli - 2. del: Notranji optični kabli - Področna specifikacija (IEC 60794-2:2017)

Optical fibre cables - Part 2: Indoor optical fibre cables - Sectional specification (IEC 60794-2:2017)

Ta slovenski standard je istoveten z: EN 60794-2:2017

ICS:

33.180.10 (Optična) vlakna in kabli Fibres and cables

SIST EN 60794-2:2018 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60794-2

October 2017

ICS 33.180.10

Supersedes EN 60794-2:2003

English Version

Optical fibre cables - Part 2: Indoor cables - Sectional specification (IEC 60794-2:2017)

Câbles à fibres optiques - Partie 2: Câbles intérieurs - Spécification intermédiaire (IEC 60794-2:2017)

Lichtwellenleiterkabel - Teil 2: LWL-Innenkabel - Rahmenspezifikation (IEC 60794-2:2017)

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

Ref. No. EN 60794-2:2017 E

European foreword

The text of document 86A/1793/FDIS, future edition 4 of IEC 60794-2, prepared by SC 86 A "Fibres and Cables" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60794-2:2017.

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)	2018-04-27
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-10-27

This document supersedes EN 60794-2:2003.

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

Endorsement notice

The text of the International Standard IEC 60794-2:2017 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 standards indicated:

IEC 60794-1-2	NOTE	Harmonized as EN 60794-1-2.
IEC 60794-1-31	NOTE	Harmonized as EN 60794-1-31.
IEC 609794-2-10	NOTE	Harmonized as EN 609794-2-10.
IEC 60794-3	NOTE	Harmonized as EN 60794-3.
IEC 62807-1	NOTE	Harmonized as EN 62807-1.

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.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60304	-	Standard colours for insulation for low-frequency cables and wires	HD 402 S2	-
IEC 60793-1-40	-	Optical fibres - Part 1-40: Measurement methods and test procedures - Attenuation	EN 60793-1-40	-
IEC 60793-2	-	Optical fibres - Part 2: Product specifications - General	EN 60793-2	-
IEC 60793-2-10	2015	Optical fibres - Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres	EN 60793-2-10	2016
IEC 60793-2-50	-	Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres	EN 60793-2-50	-
IEC 60794-1-1	2015	Optical fibre cables - Part 1-1: Generic specification - General	EN 60794-1-1	2016
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 60794-1-22	-
IEC 60794-1-23	-	Optical fibre cables - Part 1-23: Generic specification - Basic optical cable test procedures - Cable element test methods	EN 60794-1-23	-
IEC 60794-1-24	-	Optical fibre cables - Part 1-24: Generic specification - Basic optical cable test procedures - Electrical test methods	EN 60794-1-24	-
IEC 60794-2	series	Optical fibre cables - Part 2: Indoor cables	EN 60794-2	series
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/TR 61931	-	Fibre optic - Terminology	-	-
ISO/IEC 11801	-	Information technology - Generic cabling for customer premises	-	-

IEC 60794-2

Edition 4.0 2017-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Optical fibre cables –
Part 2: Indoor cables – Sectional specification

Câbles à fibres optiques –
Partie 2: Câbles intérieurs – Spécification intermédiaire

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 33.180.10

ISBN 978-2-8322-4504-0

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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OPTICAL FIBRE CABLES –

Part 2: Indoor cables – Sectional specification

FOREWORD

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

This fourth edition cancels and replaces the third edition published in 2002. This edition constitutes a technical revision.

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

a) the specification has been streamlined by cross-referencing with IEC 60794-1-1 and IEC TR 61931;
b) the document structure has been aligned with IEC 60794-3, and Clause 4 on optical fibres was added;
c) transmission requirements in Clause 4 were added;

d) the electrical conductors and the lay-up of the cable elements were introduced into Article 5 on cable elements and construction;

e) 5.13 on identification was separated in fibre, unit and sheath colour coding;

f) the colour coding proposals were extended to accommodate latest fibre categories;

g) Article 6 on installation and operating condition was added;

h) cable element tests and cable tests have been simplified by the use of tables instead of text;

i) a bibliography has been added.

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

FDIS	Report on voting
86A/1793/FDIS	86A/1805/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 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 "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

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

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

OPTICAL FIBRE CABLES –

Part 2: Indoor cables – Sectional specification

1 Scope

This part of IEC 60794 is a sectional specification. It gives the requirements that apply to optical fibre cables for indoor use in communications networks. Other types of applications requiring similar types of cables can be considered.

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 60304, *Standard colours for insulation for low-frequency cables and wire*

IEC 60793-1-40, *Optical fibres – Part 1-40: Measurement methods and test procedures – Attenuation*

IEC 60793-2, *Optical fibres – Part 2: Product specifications – General*

IEC 60793-2-10:2015, *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 60794-1-1:2015, *Optical fibre cables – Part 1-1: Generic specification – General*

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 test methods*

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

IEC 60794-1-24, *Optical fibre cables – Part 1-24: Generic specification – Basic optical cable test procedures – Electrical test methods*

IEC 60794-2 (all parts), *Optical fibre cables – Part 2: Indoor cables*

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*