

Optical Fibre Cables - Part 6: Indoor-Outdoor cables -
Sectional specification for Indoor-Outdoor cables

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 60794-6:2020 sisaldab Euroopa standardi EN IEC 60794-6:2020 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 60794-6:2020 consists of the English text of the European standard EN IEC 60794-6:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

**Optical fibre cables - Part 6: Indoor-outdoor cables - Sectional
specification for indoor-outdoor cables
(IEC 60794-6:2020)**

Câbles à fibres optiques - Partie 6: Câbles
intérieurs/extérieurs - Spécification intermédiaire pour les
câbles intérieurs/extérieurs
(IEC 60794-6:2020)

Lichtwellenleiterkabel - Teil 6: Innen-/Außenkabel -
Rahmenspezifikation für Innen-/Außenkabel
(IEC 60794-6:2020)

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European foreword

The text of document 86A/2042/FDIS, future edition 1 of IEC 60794-6, 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 60794-6:2020.

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) 2021-07-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-10-30

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The text of the International Standard IEC 60794-6:2020 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 (series)	NOTE	Harmonized as EN 60794 (series)
IEC 60794-1-2	NOTE	Harmonized as EN 60794-1-2
IEC 60794-1-3	NOTE	Harmonized as EN 60794-1-3
IEC 60794-1-22	NOTE	Harmonized as EN IEC 60794-1-22
IEC 60794-1-23	NOTE	Harmonized as EN IEC 60794-1-23
IEC 60794-1-24	NOTE	Harmonized as EN 60794-1-24
IEC 60794-1-219	NOTE	Harmonized as EN IEC 60794-1-219 ¹
IEC 60794-3-10	NOTE	Harmonized as EN 60794-3-10
IEC 60811-203	NOTE	Harmonized as EN 60811-203

¹ To be published. Stage at the time of publication: prEN IEC 60794-1-219:2020.

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60793-1-40	-	Optical fibres - Part 1-40: Attenuation measurement methods	EN IEC 60793-1-40	-
IEC 60793-2	-	Optical fibres - Part 2: Product specifications	-	-
IEC 60794-1-1	-	Optical fibre cables - Part 1-1: Generic specification - General	EN 60794-1-1	-
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 60794-2	2017	Optical fibre cables - Part 2: Indoor cables - Sectional specification	EN 60794-2	2017
IEC 60794-3	2014	Optical fibre cables - Part 3: Outdoor cables - Sectional specification	EN 60794-3	2015
IEC 60794-6-10	-	Optical fibre cables - Part 6-10: Indoor-outdoor cables - Family specification for universal indoor-outdoor cables	-	-
IEC 60794-6-20	-	Optical fibre cables - Part 6-20: Indoor-outdoor cables - Family specification for flame retardant outdoor cables	-	-
IEC 60794-6-30	-	Optical fibre cables - Part 6-30: Indoor-outdoor cables - Family specification for weatherised indoor cables	-	-

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Optical fibre cables –
Part 6: Indoor-outdoor cables – Sectional specification for indoor-outdoor
cables**

**Câbles à fibres optiques –
Partie 6: Câbles intérieurs/extérieurs – Spécification intermédiaire pour
les câbles intérieurs/extérieurs**



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibre cables –

Part 6: Indoor-outdoor cables – Sectional specification for indoor-outdoor cables

Câbles à fibres optiques –

Partie 6: Câbles intérieurs/extérieurs – Spécification intermédiaire pour les câbles intérieurs/extérieurs

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CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references	5
3 Terms, definitions and abbreviated terms	6
3.1 Terms and definitions.....	6
3.2 Abbreviated terms.....	6
4 Optical fibres	6
5 Cable elements	6
5.1 General.....	6
5.2 Materials compatibility	7
5.3 Optical elements	7
5.4 Testing of cable elements	7
5.5 Cable elements to be used for indoor-outdoor cable	7
6 Common specifications for indoor-outdoor cables	7
7 Installation and operating conditions.....	8
8 Characterization of cable elements	8
9 Test conditions for indoor-outdoor cables	8
9.1 Test methods applicable for indoor-outdoor cables	8
9.2 Fire performance	9
10 Quality assurance.....	9
11 Packaging	9
Bibliography.....	10
Table 1 – Key cable performance parameters for indoor-outdoor cables compared to indoor and outdoor cables.....	8

INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

**Part 6: Indoor-outdoor cables –
Sectional specification for indoor-outdoor cables**

FOREWORD

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International Standard IEC 60794-6 has been prepared by subcommittee SC 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86A/2042/FDIS	86A/2052/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.

OPTICAL FIBRE CABLES –

Part 6: Indoor-outdoor cables – Sectional specification for indoor-outdoor cables

1 Scope

This part of IEC 60794 is a sectional specification covering general features of optical fibre cables applicable to outdoor as well as indoor environments, called "indoor-outdoor cables". Indoor-outdoor cables are deployed in outside plant environments as well as in premises thus fulfilling outdoor as well as indoor requirements. Typical application spaces are, for example, extension of a duct cable into a building or using this design for centralized cabling in the central office, the premises or local area network where the same cable is used for the entire length of the cabling link including both the indoor as well as the outdoor portions.

Cables which generally possess the characteristics associated with outdoor cable designs having the thermal and mechanical robustness that makes them suitable for use in the outside plant, while simultaneously being relatively flexible, compact and lightweight and exhibiting the fire performance required in indoor premises are specified in IEC 60794-6-10.

Flame retardant outdoor cables as specified in IEC 60794-6-20 are used when most of the cable length is deployed as an outdoor cable with a part of its length deployed indoors. The cable design can be derived from a typical outdoor cable design according to the product specifications described in IEC 60794-3. The specific performance related to bend radii according to the installation situation and fire performance according to the regional legislation mainly requires the appropriate selection of the jacket material in combination with other material and/or design considerations. Because of the use in buildings with tighter space restrictions, higher flexibility of the cable is often required for the installation. Often, smaller diameter cables are preferred.

Indoor cables which are weatherised as specified in (IEC 60794-6-30) are used when an indoor cable is used outdoors over a short distance (few meters), for example when the network access point (NAP) is very close to the building. The indoor-outdoor fibre optical cable design can be derived from an indoor design (see IEC 60794-2 and IEC TR 62901 for typical applications) with specific outdoor performance features added. Critical parameters are UV stability, and resistance against exposure to humidity.

2 Normative references

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

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

IEC 60794-1-1, *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 test methods*