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STN	**Optické vlákna Časť 2: Špecifikácie výrobku Všeobecne**	**STN EN IEC 60793-2 35 9213**

Optical fibres - Part 2: Product specifications - General

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. 06/20

Obsahuje: EN IEC 60793-2:2019, IEC 60793-2:2019

Oznámením tejto normy sa od 19.12.2022 ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60793-2

December 2019

ICS 33.180.10

Supersedes EN 60793-2:2016 and all of its amendments and corrigenda (if any)

English Version

Optical fibres - Part 2: Product specifications - General (IEC 60793-2:2019)

Fibres optiques - Partie 2: Spécifications de produits - Généralités
(IEC 60793-2:2019)

Lichtwellenleiter - Teil 2: Produktspezifikationen - Allgemeines
(IEC 60793-2:2019)

This European Standard was approved by CENELEC on 2019-12-19. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, 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: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 86A/1964/FDIS, future edition 9 of IEC 60793-2, 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 60793-2:2019.

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)	2020-09-19
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2022-12-19

This document supersedes EN 60793-2:2016 and all of its amendments and corrigenda (if any).

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 60793-2:2019 was approved by CENELEC as a European Standard without any modification.

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	series	Optical fibres - Part 1: Measurement methods and test procedures	EN 60793-1	series
IEC 60793-2-10	2019	Optical fibres - Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres	EN IEC 60793-2-10	2019
IEC 60793-2-20	2015	Optical fibres - Part 2-20: Product specifications - Sectional specification for category A2 multimode fibres	EN 60793-2-20	2016
IEC 60793-2-30	2015	Optical fibres - Part 2-30: Product specifications - Sectional specification for category A3 multimode fibres	EN 60793-2-30	2015
IEC 60793-2-40	2015	Optical fibres - Part 2-40: Product specifications - Sectional specification for category A4 multimode fibres	EN 60793-2-40	2016
IEC 60793-2-50	2018	Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres	EN IEC 60793-2-50	2019
IEC 60793-2-60	2008	Optical fibres - Part 2-60: Product specifications - Sectional specification for category C single-mode intraconnection fibres	EN 60793-2-60	2008
IEC 60793-2-70	2017	Optical fibres - Part 2-70: Product specifications - Sectional specification for polarization-maintaining fibres	EN 60793-2-70	2017

IEC 60793-2

Edition 9.0 2019-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibres –
Part 2: Product specifications – General

Fibres optiques –
Partie 2: Spécifications de produits – Généralités

IEC 60793-2:2019-11(en-fr)

IEC 60793-2

Edition 9.0 2019-11

INTERNATIONAL STANDARD

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Optical fibres –
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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OPTICAL FIBRES –

Part 2: Product specifications – General

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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International Standard IEC 60793-2 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

This ninth edition cancels and replaces the eighth edition published in 2015. This edition constitutes a technical revision.

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

a) introduction of the revised fibre designations for most A1 sub-category fibres and all class B single-mode fibres;
b) addition of the new fibre model (A1-OM5) defined for A1 category;
c) addition of class D polarization maintaining fibres.

This document is to be read in conjunction with those parts of the IEC 60793-1 series that address individual measurements and tests for attributes of optical fibres.

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

FDIS	Report on voting
86A/1964/FDIS	86A/1974/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 60793 series, published under the general title *Optical fibres*, 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 FIBRES –

Part 2: Product specifications – General

1 Scope

This part of IEC 60793 contains the general specifications for both multimode and single-mode optical fibres.

Sectional specifications for each of the four categories of multimode fibres: A1, A2, A3, and A4 (part of the multimode fibre class A) contain requirements specific to each category.

Sectional specifications for each of the three single-mode fibre classes, B, C and D contain requirements common to each class.

Each sectional specification includes family specifications (in normative annexes) that contain requirements for the applicable category or sub-categories. These sub-categories are distinguished on the basis of different fibre types or applications.

The requirements of this document apply to all classes.

Each sectional specification contains the requirements that are common to all the family specifications that are within it. These common requirements are copied to the family specification for ease of reference.

Tests or measurement methods are defined for each specified attribute. Where possible, these definitions are by reference to an IEC International Standard (see IEC 60793-1 series) – otherwise the test or measurement method is outlined in the relevant sectional specification.

Table 1 defines the sectional specifications. The relevant family specifications are defined within the sectional specifications as normative annexes (see Tables 2 to 5).

Annexes A and B summarize the existing fibre specifications.

Table 1 – Sectional specifications

Document ID	Fibre category/class	Cladding material	Core material	Index profile
IEC 60793-2-10	A1 multimode	Glass	Glass	Graded
IEC 60793-2-20	A2 multimode	Glass	Glass	Quasi-step or step
IEC 60793-2-30	A3 multimode	Plastic	Glass	Step or graded (under consideration)
IEC 60793-2-40	A4 multimode	Plastic	Plastic	Step, multi-step or graded
IEC 60793-2-50	B single-mode	Glass	Glass	Not applicable
IEC 60793-2-60	C single-mode	Glass	Glass	Not applicable
IEC 60793-2-70	D polarization-maintaining	Glass	Glass	Not applicable

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 wires*

IEC 60793-1 (all parts), *Optical fibres – Part 1: Measurement methods and test procedures*

IEC 60793-2-10:2019, *Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres*

IEC 60793-2-20:2015, *Optical fibres – Part 2-20: Product specifications – Sectional specification for category A2 multimode fibres*

IEC 60793-2-30:2015, *Optical fibres – Part 2-30: Product specifications – Sectional specification for category A3 multimode fibres*

IEC 60793-2-40:2015, *Optical fibres – Part 2-40: Product specifications – Sectional specification for category A4 multimode fibres*

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

IEC 60793-2-60:2008, *Optical fibres – Part 2-60: Product specifications – Sectional specification for category C single-mode intraconnection fibres*

IEC 60793-2-70:2017, *Optical fibres – Part 2-70: Product specifications – Sectional specification for polarization-maintaining fibres*