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Optical fibres - Part 1-45: Measurement methods and test procedures - Mode field diameter

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. 08/24

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Oznámením tejto normy sa od 24.05.2027 ruší
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EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN IEC 60793-1-45

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Supersedes EN IEC 60793-1-45:2018

English Version

Optical fibres - Part 1-45: Measurement methods and test procedures - Mode field diameter (IEC 60793-1-45:2024)

Fibres optiques - Partie 1-45 : Méthodes de mesure et procédures d'essai - Diamètre du champ de mode (IEC 60793-1-45:2024)

Lichtwellenleiter - Teil 1-45: Messmethoden und Prüfverfahren - Modenfelddurchmesser (IEC 60793-1-45:2024)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 60793-1-45:2024 E

European foreword

The text of document 86A/2300/CDV, future edition 3 of IEC 60793-1-45, 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 60793-1-45:2024.

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) 2025-02-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2027-05-24

This document supersedes EN IEC 60793-1-45:2018 and all of its amendments and corrigenda (if any).

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In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60793-2	NOTE	Approved as EN IEC 60793-2

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.

Publication	Year	Title	EN/HD	Year
IEC 60793-1-40	-	Optical fibres - Part 1-40: Attenuation measurement methods	EN IEC 60793-1-40	-

IEC 60793-1-45

Edition 3.0 2024-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibres –
Part 1-45: Measurement methods and test procedures – Mode field diameter

Fibres optiques –
Partie 1-45 : Méthodes de mesure et procédures d'essai – Diamètre du champ de mode

IEC 60793-1-45:2024-04(en-fr)

IEC 60793-1-45

Edition 3.0 2024-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibres –
Part 1-45: Measurement methods and test procedures – Mode field diameter

Fibres optiques –
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OPTICAL FIBRES –

Part 1-45: Measurement methods and test procedures – Mode field diameter

FOREWORD

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IEC 60793-1-45 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 2017. This edition constitutes a technical revision.

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

a) Modification of the minimum distance between the fibre end and the detector for the direct far field scan (Annex A).
b) Generalization of the requirement for the minimum dynamic range for all fibre types (Annex A).

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

Draft	Report on voting
86A/2300/CDV	86A/2366/RVC

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. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

OPTICAL FIBRES –

Part 1-45: Measurement methods and test procedures – Mode field diameter

1 Scope

This part of IEC 60793 establishes uniform requirements for measuring the mode field diameter (MFD) of single-mode optical fibre, thereby assisting in the inspection of fibres and cables for commercial purposes.

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