

STN	Optické vlákna Časť 1-45: Metódy merania a skúšobné postupy Priemer poľa vidov	STN EN IEC 60793-1-45 35 9213
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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

Obsahuje: EN IEC 60793-1-45:2024, IEC 60793-1-45:2024

Oznámením tejto normy sa od 24.05.2027 ruší
STN EN IEC 60793-1-45 (35 9213) z júla 2018

139095

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii
v znení neskorších predpisov.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60793-1-45

May 2024

ICS 33.180.10

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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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.

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IEC 60793-2	NOTE	Approved as EN IEC 60793-2
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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 60793-1-45

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

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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

INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONALE

ICS 33.180.10

ISBN 978-2-8322-8639-5

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CONTENTS

FOREWORD	5
1 Scope	7
2 Normative references	7
3 Terms, definitions and abbreviated terms	7
3.1 Terms and definitions	7
3.2 Abbreviated terms	7
4 General consideration about mode field diameter	8
5 Reference test method	8
6 Apparatus	8
6.1 General	8
6.2 Light source	9
6.3 Input optics	9
6.4 Input positioner	9
6.5 Cladding mode stripper	9
6.6 High-order mode filter	9
6.7 Output positioner	9
6.8 Output optics	10
6.9 Detector	10
6.10 Computer	10
7 Sampling and samples	10
7.1 Sample length	10
7.2 Sample end face	10
8 Procedure	10
9 Calculations	10
9.1 Basic formulae	10
9.2 Method A – Direct far-field scan	10
9.3 Method B – Variable aperture in the far field	11
9.4 Method C – Near-field scan	12
10 Results	13
10.1 Information available with each measurement	13
10.2 Information available upon request	13
11 Specification information	13
Annex A (normative) Requirements specific to method A – Mode field diameter by direct far-field scan	14
A.1 Apparatus	14
A.1.1 General	14
A.1.2 Scanning detector assembly – Signal detection electronics	14
A.1.3 Computer	15
A.2 Procedure	15
A.3 Calculations	15
A.3.1 Determine folded power curve	15
A.3.2 Compute the top (T) and bottom (B) integrals of Formula (1)	15
A.3.3 Complete the calculation	16
A.4 Sample data	16
Annex B (normative) Requirements specific to method B – Mode field diameter by variable aperture in the far field	17

B.1	Apparatus	17
B.1.1	General	17
B.1.2	Output variable aperture assembly	17
B.1.3	Output optics system	18
B.1.4	Detector assembly and signal detection electronics	18
B.2	Procedure	18
B.3	Calculations	18
B.3.1	Determine complementary aperture function	18
B.3.2	Complete the integration	19
B.3.3	Complete the calculation	19
B.4	Sample data	19
Annex C (normative) Requirements specific to method C – Mode field diameter by near-field scan		20
C.1	Apparatus	20
C.1.1	General	20
C.1.2	Magnifying output optics	20
C.1.3	Scanning detector	21
C.1.4	Detection electronics	21
C.2	Procedure	21
C.3	Calculations	21
C.3.1	Calculate the centroid	21
C.3.2	Fold the intensity profile	22
C.3.3	Compute the integrals	22
C.3.4	Complete the calculation	23
C.4	Sample data	23
Annex D (normative) Requirements specific to method D – Mode field diameter by optical time domain reflectometer (OTDR)		24
D.1	General	24
D.2	Apparatus	24
D.2.1	OTDR	24
D.2.2	Optional auxiliary switches	24
D.2.3	Optional computer	25
D.2.4	Test sample	25
D.2.5	Reference sample	25
D.3	Procedure – Orientation and notation	25
D.4	Calculations	26
D.4.1	Reference fibre mode field diameter	26
D.4.2	Computation of the sample mode field diameter	27
D.4.3	Validation	27
Annex E (informative) Sample data sets and calculated values		29
E.1	General	29
E.2	Method A – Mode field diameter by direct far-field scan	29
E.3	Method B – Mode field diameter by variable aperture in the far field	30
E.4	Method C – Mode field diameter by near-field scan	30
Bibliography		31
Figure 1 – Transform relationships between measurement results		8
Figure A.1 – Far-field measurement set		14

Figure B.1 – Variable aperture by far-field measurement set.....	17
Figure C.1 – Near-field measurement set-ups.....	20
Figure D.1 – Optical switch arrangement	25
Figure D.2 – View from reference fibre A	26
Figure D.3 – View from reference fibre B	26
Figure D.4 – Validation example – Comparison of methods.....	27
Table 1 – Abbreviated terms	7
Table E.1 – Sample data, method A – Mode field diameter by direct far-field scan.....	29
Table E.2 – Sample data set, method B – Mode field diameter by variable aperture in the far field	30
Table E.3 – Sample data set, method C – Mode field diameter by near-field scan.....	30

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

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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*

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