
**Optična vlakna – 1-43. del: Metode merjenja in preskusni postopki -
Numerična odprtina (IEC 60793-1-43:2001)***

Optical fibres - Part 1-43: Measurement methods and test procedures - Numerical
aperture (IEC 60793-1-43:2001)

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EUROPEAN STANDARD

EN 60793-1-43

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2002

ICS 33.180.10

Partly supersedes EN 188000:1992

English version

Optical fibres
Part 1-43: Measurement methods and test procedures –
Numerical aperture
(IEC 60793-1-43:2001)

Fibres optiques
Partie 1-43: Méthodes de mesure
et procédures d'essai –
Ouverture numérique
(CEI 60793-1-43:2001)

Lichtwellenleiter
Teil 1-43: Messmethoden
und Prüfverfahren –
Numerische Apertur
(IEC 60793-1-43:2001)

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SIST EN 60793-1-43:2004
https://standards.iteh.ai/catalog/standards/sist/1/d43/2/00-1884-195c-9a0c-#597187311416/view/en/60793-1-43:2004
This European Standard was approved by CENELEC on 2001-10-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 86A/672/FDIS, future edition 1 of IEC 60793-1-43, prepared by SC 86A, Fibres and cables, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60793-1-43 on 2001-10-01.

This European Standard supersedes subclause 4.19 (test method 311) of EN 188000:1992.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2002-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-10-01

Compared to IEC 60793-1:1989 and IEC 60793-2:1992, IEC/SC 86A has adopted a revised structure of the new IEC 60793 series: The individual measurement methods and test procedures for optical fibres are published as "Part 1-XX"; the product standards are published as "Part 2-XX".

The general relationship between the new series of EN 60793 and the superseded European Standards of the EN 188000 series is as follows:

EN	Title	supersedes
EN 60793-1-XX	Optical fibres – Part 1-XX: Measurement methods and test procedures	Individual subclauses of EN 188000:1992
EN 60793-2-XX	Optical fibres – Part 2-XX: Product specifications SIST EN 60793-1-43:2004 https://standards.iteh.ai/catalog/standards/sist/1d4a273e-fb84-4d5974b7212d6/sist-en-60793-1-43-2004	EN 188100:1995 EN 188101:1995 EN 188102:1995 EN 188200:1995 EN 188201:1995 EN 188202:1995

EN 60793-1-4X consists of the following parts, under the general title: Optical fibres:

- Part 1-40: Measurement methods and test procedures – Attenuation
- Part 1-41: Measurement methods and test procedures – Bandwidth
- Part 1-42: Measurement methods and test procedures – Chromatic dispersion
- Part 1-43: Measurement methods and test procedures – Numerical aperture
- Part 1-44: Measurement methods and test procedures – Cut-off wavelength
- Part 1-45: Measurement methods and test procedures – Mode field diameter
- Part 1-46: Measurement methods and test procedures – Monitoring of changes in optical transmittance
- Part 1-47: Measurement methods and test procedures – Macrobending loss
- Part 1-48: Measurement methods and test procedures – Under consideration
- Part 1-49: Measurement methods and test procedures – Under consideration

Endorsement notice

The text of the International Standard IEC 60793-1-43:2001 was approved by CENELEC as a European Standard without any modification.

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

60793-1-43

Première édition
First edition
2001-07

Fibres optiques –

Partie 1-43:

Méthodes de mesure et procédures d'essai –
Ouverture numérique

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Measurement methods and test procedures –
Numerical aperture

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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CONTENTS

FOREWORD.....	5
INTRODUCTION.....	9
1 Scope.....	11
2 Normative references.....	11
3 Overview of method.....	11
4 Reference test method.....	13
5 Apparatus.....	13
5.1 Input system.....	13
5.1.1 Light source.....	13
5.1.2 Input optics.....	13
5.1.3 Fibre input end support and alignment.....	13
5.1.4 Cladding mode stripper.....	13
5.2 Output system and detection.....	13
5.2.1 Technique 1 – Angular scan (see figure 1).....	15
5.2.2 Technique 2 – Angular scan (see figure 2).....	15
5.2.3 Technique 3 – Scan of the spatial field pattern (see figure 3).....	15
5.2.4 Optical detector.....	21
6 Sampling and specimens.....	21
6.1 Specimen length.....	21
6.2 Specimen end face.....	21
7 Procedure.....	21
8 Calculations.....	23
8.1 Far field versus maximum theoretical value.....	23
8.2 Five per cent intensity angle, θ_5	23
8.3 Numerical aperture, NA_{ff}	23
9 Results.....	23
9.1 Information to be provided with each measurement.....	23
9.2 Information available upon request.....	23
10 Specification information.....	25
Figure 1 – Technique 1 – Angular scan.....	17
Figure 2 – Technique 2 – Angular scan.....	17
Figure 3 – Technique 3 – Scan of the spatial field pattern.....	19

INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRES –

**Part 1-43: Measurement methods and test procedures –
Numerical aperture**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60793-1-43 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

This standard, together with the other standards in the IEC 60793-1-4X series, replaces the second edition of IEC 60793-1-4, of which it constitutes a technical revision.

The text of this standard is based on the following documents:

FDIS	Report on voting
86A/672/FDIS	86A/696/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

IEC 60793-1-1 and IEC 60793-1-2 cover generic specifications.

IEC 60793-1-4X consists of the following parts, under the general title: Optical fibres:

- Part 1-40: Measurement methods and test procedures – Attenuation
- Part 1-41: Measurement methods and test procedures – Bandwidth
- Part 1-42: Measurement methods and test procedures – Chromatic dispersion
- Part 1-43: Measurement methods and test procedures – Numerical aperture
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- Part 1-48: Measurement methods and test procedures – Under consideration
- Part 1-49: Measurement methods and test procedures – Under consideration

The committee has decided that the contents of this publication will remain unchanged until 2003. At this date, the publication will be

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

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INTRODUCTION

Publications in the IEC 60793-1 series concern measurement methods and test procedures as they apply to optical fibres.

Within the same series several different areas are grouped, as follows:

- parts 1-10 to 1-19: General
- parts 1-20 to 1-29: Measurement methods and test procedures for dimensions
- parts 1-30 to 1-39: Measurement methods and test procedures for mechanical characteristics
- parts 1-40 to 1-49: Measurement methods and test procedures for transmission and optical characteristics
- parts 1-50 to 1-59: Measurement methods and test procedures for environmental characteristics.

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