



SLOVENSKI STANDARD

SIST EN 60793-1-1:2017

01-junij-2017

Nadomešča:
SIST EN 60793-1-1:2008

Optična vlakna - 1-1. del: Metode merjenja in preskusni postopki - Splošno in smernice (IEC 60793-1-1:2017)

Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance (IEC 60793-1-1:2017)

Lichtwellenleiter - Teil 1-1: Mess- und Prüfverfahren - Allgemeines und Leitfaden (IEC 60793-1-1:2017)

Fibres optiques - Partie 1-1: Méthodes de mesure et procédures d'essai - Généralités et lignes directrices (IEC 60793-1-1:2017)

Ta slovenski standard je istoveten z: EN 60793-1-1:2017

ICS:

33.180.10 (Optična) vlakna in kabli Fibres and cables

SIST EN 60793-1-1:2017 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60793-1-1:2017](https://standards.iteh.ai/catalog/standards/sist/65407a1f-dd92-4e69-ab0a-51f1b366f168/sist-en-60793-1-1-2017)

<https://standards.iteh.ai/catalog/standards/sist/65407a1f-dd92-4e69-ab0a-51f1b366f168/sist-en-60793-1-1-2017>

EUROPEAN STANDARD

EN 60793-1-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2017

ICS 33.180.10

Supersedes EN 60793-1-1:2008

English Version

**Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance
(IEC 60793-1-1:2017)**

Fibres optiques - Partie 1-1: Méthodes de mesure et procédures d'essai - Généralités et lignes directrices
(IEC 60793-1-1:2017)

Lichtwellenleiter - Teil 1-1: Messmethoden und Prüfverfahren - Allgemeines und Leitfaden
(IEC 60793-1-1:2017)

This European Standard was approved by CENELEC on 2017-03-01. 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 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, 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: Avenue Marnix 17, B-1000 Brussels

EN 60793-1-1:2017**European foreword**

The text of document 86A/1747/CDV, future edition 4 of IEC 60793-1-1, 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 60793-1-1:2017.

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) 2017-12-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-03-01

This document supersedes EN 60793-1-1:2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

iTeh STANDARD PREVIEW
(standards.iteh.ai)

The text of the International Standard IEC 60793-1-1:2017 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 60793-2 (Series)	NOTE	Harmonized as EN 60793-2 (Series).
ISO 80000-1:2009	NOTE	Harmonized as EN ISO 80000-1:2013.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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 60793-1-20	-	Optical fibres - Part 1-20: Measurement methods and test procedures - Fibre geometry	EN 60793-1-20	-
IEC 60793-1-21	-	Optical fibres -- Part 1-21: Measurement methods and test procedures - Coating geometry	EN 60793-1-21	-
IEC 60793-1-22	-	Optical fibres -- Part 1-22: Measurement methods and test procedures - Length measurement	EN 60793-1-22	-
IEC 60793-1-30	-	Optical fibres -- Part 1-30: Measurement methods and test procedures - Fibre proof test	EN 60793-1-30	-
IEC 60793-1-31	-	Optical fibres -- Part 1-31: Measurement methods and test procedures - Tensile strength	EN 60793-1-31	-
IEC 60793-1-32	-	Optical fibres -- Part 1-32: Measurement methods and test procedures - Coating strippability	EN 60793-1-32	-
IEC 60793-1-33	-	Optical fibres -- Part 1-33: Measurement methods and test procedures - Stress corrosion susceptibility	EN 60793-1-33	-
IEC 60793-1-34	-	Optical fibres -- Part 1-34: Measurement methods and test procedures - Fibre curl	EN 60793-1-34	-
IEC 60793-1-40	-	Optical fibres -- Part 1-40: Measurement methods and test procedures - Attenuation	EN 60793-1-40	-
IEC 60793-1-41	-	Optical fibres -- Part 1-41: Measurement methods and test procedures - Bandwidth	EN 60793-1-41	-
IEC 60793-1-42	-	Optical fibres -- Part 1-42: Measurement methods and test procedures - Chromatic dispersion	EN 60793-1-42	-
IEC 60793-1-43	-	Optical fibres - Part 1-43: Measurement methods and test procedures - Numerical aperture measurement	EN 60793-1-43	-
IEC 60793-1-44	-	Optical fibres -- Part 1-44: Measurement methods and test procedures - Cut-off wavelength	EN 60793-1-44	-
IEC 60793-1-45	-	Optical fibres - Part 1-45: Measurement methods and test procedures - Mode field diameter	EN 60793-1-45	-

EN 60793-1-1:2017

IEC 60793-1-46	-	Optical fibres -- Part 1-46: Measurement methods and test procedures - Monitoring of changes in optical transmittance	EN 60793-1-46	-
IEC 60793-1-47	-	Optical fibres -- Part 1-47: Measurement methods and test procedures - Macrobending loss	EN 60793-1-47	-
IEC 60793-1-48	-	Optical fibres -- Part 1-48: Measurement methods and test procedures - Polarization mode dispersion	EN 60793-1-48	-
IEC 60793-1-49	-	Optical fibres -- Part 1-49: Measurement methods and test procedures - Differential mode delay	EN 60793-1-49	-
IEC 60793-1-50	-	Optical fibres - Part 1-50: Measurement methods and test procedures - Damp heat (steady state) tests	EN 60793-1-50	-
IEC 60793-1-51	-	Optical fibres - Part 1-51: Measurement methods and test procedures - Dry heat (steady state) tests	EN 60793-1-51	-
IEC 60793-1-52	-	Optical fibres - Part 1-52: Measurement methods and test procedures - Change of temperature tests	EN 60793-1-52	-
IEC 60793-1-53	-	Optical fibres - Part 1-53: Measurement methods and test procedures - Water immersion tests	EN 60793-1-53	-
IEC 60793-1-54	-	Optical fibres -- Part 1-54: Measurement methods and test procedures - Gamma irradiation	EN 60793-1-54	-
IEC 60793-2	-	Optical fibres - Part 2: Product specifications - General	EN 60793-2	-
IEC/TR 61931	-	Fibre optic - Terminology	-	-

[SIST EN 60793-1-1:2017](https://standards.iteh.ai/catalog/standards/sist/65407a1f-dd92-4e69-ab0a-51f1366f168/sist-en-60793-1-1-2017)
<https://standards.iteh.ai/catalog/standards/sist/65407a1f-dd92-4e69-ab0a-51f1366f168/sist-en-60793-1-1-2017>



INTERNATIONAL STANDARD



Optical fibres – iTeh STANDARD PREVIEW
Part 1-1: Measurement methods and test procedures – General and guidance
(standards.iteh.ai)

[SIST EN 60793-1-1:2017](https://standards.iteh.ai/catalog/standards/sist/65407a1f-dd92-4e69-ab0a-51f1366f168/sist-en-60793-1-1-2017)

<https://standards.iteh.ai/catalog/standards/sist/65407a1f-dd92-4e69-ab0a-51f1366f168/sist-en-60793-1-1-2017>

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.180.10

ISBN 978-2-8322-3864-6

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD	3
INTRODUCTION	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 Rounding rules	7
5 Measurement and test categories	8
6 Standard atmospheric measurement and test conditions	9
7 Calibration guidance	9
8 Reference test methods	9
9 Categories of optical fibres	9
10 Packaging	9
Bibliography	11
Table 1 – Standard range of atmospheric conditions	9

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60793-1-1:2017](https://standards.iteh.ai/catalog/standards/sist/65407a1f-dd92-4e69-ab0a-51f1b366f168/sist-en-60793-1-1-2017)

<https://standards.iteh.ai/catalog/standards/sist/65407a1f-dd92-4e69-ab0a-51f1b366f168/sist-en-60793-1-1-2017>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRES –

**Part 1-1: Measurement methods and test procedures –
General and guidance**

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.
- 2) The formal decisions or agreements of 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
<https://standards.iteh.ai/catalog/standards/sist/65407a1f-dd92-4e69-ab0a->
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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

This fourth edition cancels and replaces the third edition published in 2008. This edition constitutes a technical revision.

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

- a) addition of rounding rules in Clause 4;
- b) addition of two packaging requirements in Clause 10 d) and e).