

Optical fibre cables - Part 1-201: Generic specification
- Basic optical cable test procedures - Environmental
test methods - Temperature cycling, method F1

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 60794-1-201:2024 sisaldab Euroopa standardi EN IEC 60794-1-201:2024 ingliskeelset teksti. Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 05.07.2024. Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	This Estonian standard EVS-EN IEC 60794-1-201:2024 consists of the English text of the European standard EN IEC 60794-1-201:2024. This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. Date of Availability of the European standard is 05.07.2024. The standard is available from the Estonian Centre for Standardisation and Accreditation.
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English Version

Optical fibre cables - Part 1-201: Generic specification - Basic
optical cable test procedures - Environmental test methods -
Temperature cycling, method F1
(IEC 60794-1-201:2024)

Câbles à fibres optiques - Partie 1-201: Spécification
générique - Procédures fondamentales d'essai des câbles
optiques - Méthodes d'essai d'environnement - Cycles de
température, méthode F1
(IEC 60794-1-201:2024)

Lichtwellenleiterkabel - Teil 1-201: Fachgrundspezifikation -
Grundlegende Prüfverfahren für optische Kabel -
Umweltprüfverfahren - Temperaturwechsel, Verfahren F1
(IEC 60794-1-201:2024)

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Comité Européen de Normalisation Electrotechnique
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 86A/2438/FDIS, future edition 1 of IEC 60794-1-201, 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 60794-1-201:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2025-04-04 level by publication of an identical national standard or by endorsement
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In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60068-2-14:2023	NOTE	Approved as EN IEC 60068-2-14:2023 (not modified)
IEC 60793-1-46	NOTE	Approved as EN 60793-1-46
IEC 60794-1-22:2017	NOTE	Approved as EN IEC 60794-1-22:2018 (not modified)
IEC 60794-1-209	NOTE	Approved as EN IEC 60794-1-209
IEC 60794-1-212	NOTE	Approved as EN IEC 60794-1-212
IEC 60794-1-217	NOTE	Approved as EN IEC 60794-1-217

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Optical fibre cables –

**Part 1-201: Generic specification – Basic optical cable test procedures –
Environmental test methods – Temperature cycling, method F1**

Câbles à fibres optiques –

**Partie 1-201: Spécification générique – Procédures fondamentales d'essai des
câbles optiques – Méthodes d'essai d'environnement – Cycles de température,
méthode F1**



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INTERNATIONAL STANDARD

NORME INTERNATIONALE



Optical fibre cables –

**Part 1-201: Generic specification – Basic optical cable test procedures –
Environmental test methods – Temperature cycling, method F1**

Câbles à fibres optiques –

**Partie 1-201: Spécification générique – Procédures fondamentales d'essai des
câbles optiques – Méthodes d'essai d'environnement – Cycles de température,
méthode F1**

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ICS 33.180.10

ISBN 978-2-8322-8934-1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

**Part 1-201: Generic specification –
Basic optical cable test procedures –
Environmental test methods –
Temperature cycling, method F1**

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IEC 60794-1-201 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics. It is an International Standard.

This document partially replaces IEC 60794-1-22:2017. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 60794-1-22:2017:

- a) all references to the temperature sensing device have been removed and replaced with a note "for further study";

- b) the conditioning procedure has been separated into Procedure 1 and Procedure 2 to avoid confusion;
- c) the ambient temperature test condition has been defined as per IEC 60794-1-2;
- d) the minimum soak time has been decreased for sample mass >16 kg in Table 1.

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

Draft	Report on voting
86A/2438/FDIS	86A/2463/RVD

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 60794 series, published under the general title *Optical fibre cables*, can be found on the IEC website.

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- withdrawn, or
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INTRODUCTION

This document cancels and replaces method F1 of IEC 60794-1-22:2017, which will be withdrawn. It includes an editorial revision, based on the new structure and numbering system for optical fibre cable test methods. Additionally, technical changes were implemented. The environmental tests contained in IEC 60794-1-22:2017 will be individually numbered in the IEC 60794-1-2xx series. Each test method is now considered to be an individual document rather than part of a multi-test method compendium. Full cross-reference details are given in IEC 60794-1-2.

The numbering of this test method continues the F-series numbering sequence of IEC 60794-1-22:2017.

OPTICAL FIBRE CABLES –

Part 1-201: Generic specification – Basic optical cable test procedures – Environmental test methods – Temperature cycling, method F1

1 Scope

This part of IEC 60794-1 defines test procedures to be used in establishing uniform requirements for the environmental performance of:

- optical fibre cables for use with telecommunication equipment and devices employing similar techniques; and
- cables having a combination of both optical fibres and electrical conductors.

Throughout this document, the wording "optical cable" can also include optical fibre units, microduct fibre units, etc.

This document defines a test standard to determine the ability of a cable to withstand the effects of temperature cycling by observing changes in attenuation.

See IEC 60794-1-2 for a reference guide to test methods of all types and for general requirements and definitions.

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 60794-1-1, *Optical fibre cables – Part 1-1: Generic specification – General*

IEC 60794-1-2, *Optical fibre cables – Part 1-2: Generic specification – Basic optical cable test procedures – General guidance*

3 Terms and definitions

No terms and definitions are listed in this document.

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