ICS 33.180.10 SLOVENSKÁ TECHNICKÁ NORMA Január 2026

STN	**Optické káble Časť 1-218: Kmeňová špecifikácia Základné skúšobné postupy pre optické káble Skúšobné metódy vplyvu prostredia Skúška cyklickou zmenou teploty v strede rozpätia pre exponované optické jednotky, metóda F18**	**STN EN IEC 60794-1-218** 35 9223

Optical fibre cables - Part 1-218: Generic specification - Basic optical cable test procedures - Environmental test methods - Mid-span temperature cycling test for exposed optical units, Method F18

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. 12/25

Táto norma čiastočne nahrádza normu STN EN IEC 60794-1-22 z júla 2018. Súbežná platnosť do 31. 10. 2028.

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EN IEC 60794-1-218

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Supersedes EN IEC 60794-1-22:2018 (partially)

English Version

Optical fibre cables - Part 1-218: Generic specification - Basic optical cable test procedures - Environmental test methods - Mid-span temperature cycling test for exposed optical units, Method F18 (IEC 60794-1-218:2025)

Câbles à fibres optiques - Partie 1-218: Spécification générique - Procédures fondamentales d'essais des câbles optiques - Méthodes d'essai d'environnement - Essai de cycles de température à mi-portée pour les éléments optiques exposés, Méthode F18
(IEC 60794-1-218:2025)

Lichtwellenleiterkabel - Teil 1-218: Fachgrundspezifikation - Grundlegende Prüfverfahren für Lichtwellenleiterkabel - Umweltprüfverfahren - Mid-Span-Temperaturwechselprüfung für freiliegende optische Einheiten, Verfahren F18
(IEC 60794-1-218:2025)

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

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

European foreword

The text of document 86A/2587/FDIS, future edition 1 of IEC 60794-1-218, 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 60794-1-218:2025.

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) 2026-10-31
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow) 2028-10-31

This document partially supersedes EN IEC 60794-1-22:2018 and all of its amendments and corrigenda (if any).

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60794-1-218:2025 was approved by CENELEC as a European Standard without any modification.

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

IEC 60794-1-2 NOTE Approved as EN IEC 60794-1-2

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 60793-1-46	-	Optical fibres - Part 1-46: Measurement methods and test procedures - Monitoring of changes in attenuation	EN IEC 60793-1-46	-
IEC 60794-1-1	2023	Optical fibre cables - Part 1-1: Generic specification - General	EN IEC 60794-1-1	2023

IEC 60794-1-218

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INTERNATIONAL STANDARD

Optical fibre cables -
Part 1-218: Generic specification - Basic optical cable test procedures - Environmental test methods - Mid-span temperature cycling test for exposed optical units, Method F18

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Optical fibre cables - Part 1-218: Generic specification - Basic optical cable test procedures - Environmental test methods - Mid-span temperature cycling test for exposed optical cable elements, method F18

FOREWORD

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IEC 60794-1-218 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics. It is an International Standard.

This first edition partially cancels and replaces the second edition of IEC 60794-1-22 published in 2017. This edition constitutes a technical revision.

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

a) extension of the test method scope to apply to any optical cables with optical cable elements including loose tubes, tight buffer tubes, and ribbons, exposed in a mid-span entry (expressed) and stored in a pedestal, closure, or similar;
b) modification of the test method title according to item a);
c) deletion of the tube diameter requirement for the test object;
d) modification of the default temperature range according to IEC 60794-1-1;
e) addition of the default coiled turns in the assembly during the test.

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

Draft	Report on voting
86A/2587/FDIS	86A/2608/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.

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.

INTRODUCTION

This document cancels and replaces method F18 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.

1 Scope

This part of IEC 60794 defines test procedures to establish uniform requirements for the environmental performance of:

- optical fibre cables for 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 optical cable elements from a cable exposed in a mid-span entry (expressed) and stored in a pedestal, closure or similar to withstand the effects of temperature cycling by observing changes in attenuation. The optical cable element bundles up single or multiple optical fibres, e.g. loose tube, tight buffer tube, or optical fibre ribbon.

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 60793-1-46, *Optical fibres - Part 1-46: Measurement methods and test procedures - Monitoring of changes in attenuation*

IEC 60794-1-1:2023, *Optical fibre Cables - Part 1-1: Generic specification – General*