SLOVENSKI STANDARD
oSIST prEN IEC 60794-1-213:2023

01-september-2023

Optični kabli - 1-213. del: Splošna specifikacija - Osnovni preskusni postopki za optične kable - Okoljske preskusne metode - Odpornost mikrokanalov na pritisk, metoda F13

Optical fibre cables - Part 1-213: Generic specification - Basic optical cable test procedures - Environmental test methods - Microduct pressure withstand, Method F13

Ta slovenski standard je istoveten z: **prEN IEC 60794-1-213:2023**

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86A/2331/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER: **IEC 60794-1-213 ED1**	
DATE OF CIRCULATION: **2023-06-30**	CLOSING DATE FOR VOTING: **2023-09-22**
SUPERSEDES DOCUMENTS: **86A/2251/CD, 86A/2320/CC**	

IEC SC 86A : FIBRES AND CABLES

SECRETARIAT: France	SECRETARY: Mr Laurent Gasca
OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: ☐ Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.

FUNCTIONS CONCERNED:

☐ EMC ☐ ENVIRONMENT ☐ QUALITY ASSURANCE ☐ SAFETY

☒ SUBMITTED FOR CENELEC PARALLEL VOTING	☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING
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Recipients of this document are invited to submit, with their comments, notification of any relevant "In Some Countries" clauses to be included should this proposal proceed. Recipients are reminded that the CDV stage is the final stage for submitting ISC clauses. (SEE AC/22/2007 OR NEW GUIDANCE DOC).

TITLE:

Optical fibre cables - Part 1-213: Generic specification - Basic optical cable test procedures - Environmental test methods - Microduct pressure withstand, Method F13

PROPOSED STABILITY DATE: 2026

NOTE FROM TC/SC OFFICERS:

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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OPTICAL FIBRE CABLES –

Part 1-213: Generic specification – Basic optical cable test procedures – Environmental test methods - Microduct pressure withstand, Method F13

FOREWORD

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International Standard IEC 60794-1-213 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

This first edition cancels and replaces Method F13 of the second edition of IEC 60794-1-22 published in 2017. It constitutes a technical revision.

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

a) move the sample temperature preconditioning requirement from chapter "4.2 Sample" to chapter "4.4 Procedure";
b) add pressure gauge used to monitor internal pressure of microduct as part of the test apparatus;
c) add "test temperature" in the details to be specified.

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

FDIS	Report on voting

69

70 Full information on the voting for the approval of this International Standard can be found in the
71 report on voting indicated in the above table.

72 The French version of this standard has not been voted upon.

73 This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

74 A list of all parts in the IEC 60794 series, published under the general title *Optical fibre cables*,
75 can be found on the IEC website.

76 The committee has decided that the contents of this document will remain unchanged until the
77 stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to
78 the specific document. At this date, the document will be

79 • reconfirmed,
80 • withdrawn,
81 • replaced by a revised edition, or
82 • amended.

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OPTICAL FIBRE CABLES –

Part 1-213: Generic specification – Basic optical cable test procedures – Environmental test methods - Microduct pressure withstand, Method F13

This part of IEC 60794-1 defines test procedures to be used in establishing uniform requirements for the environmental performance of microduct. The test determines the capability of the microduct to withstand internal pressure without leakage and visible damage.

This document applies to microduct used for installation of microduct cable or fibre unit by blowing.

Throughout this document, the wording "microduct" can also include protected microduct(s).

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

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

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

4.1 Object

The purpose of this test is to verify that the microduct is capable of withstanding the maximum internal pressure used for blowing the microduct cable or fibre unit.

This test ensures safe operation over a range of temperatures. The test pressure is chosen to be either the maximum working pressure of the microduct or a multiple of this as stated in the detail specification. The controlled area is a heating/cooling chamber in the event that the detail specification requires testing above or below ambient temperatures. Typical ranges are –20 °C to +60 °C. In general, polymer microducts will have a reduced tolerance to pressure as the temperature is increased.

4.2 Sample

Equal lengths L of microduct approximately 1 m long are cut from a production length. The ends shall be cut carefully, ensuring that they are not crushed. This will prevent air leaks from around the connectors. This test shall be conducted in a controlled area so that there is no danger from flying fragments if the microduct is not able to withstand the applied air pressure during the test.