IEC 61753-022-02

Edition 1.0 2026-04

INTERNATIONAL STANDARD

Fibre optic interconnecting devices and passive components - Performance standard -
Part 022-02: Multimode fibre optic connectors terminated as pigtails and patchcords for category C - Controlled environment

ICS 33.180.20

ISBN 978-2-8327-1181-1

IEC 61753-022-02:2026-04(en)

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FOREWORD

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IEC 61753-022-02 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This first edition cancels and replaces the second edition of IEC 61753-022-2 published in 2012. This edition constitutes a technical revision.

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

a) addition of provisions for rectangular ferrule connectors;
b) additions of terms and definitions;
c) update of the fibre naming conventions in accordance with IEC 60793-2-10;

d) update of test severities in accordance with IEC 61753-1;

e) addition of the torsion test;

f) reduction of the duration of the fibre/cable retention test on reinforced cables from 120 s to 60 s minimum;

g) deletion of the static side load test;

h) update of the flexing of the strain relief test to use the change in attenuation instead of the transient loss;

i) reduction of the number of mating durability cycles for cylindrical ferrule connectors from 500 cycles to 200 cycles;

j) addition of the mating durability for rectangular ferrule connectors with 50 cycles;

k) addition of Annex B for visual examination of the outer cable sheath movement of reinforced cables as an additional requirement for change of temperature, cable retention and flexing of the strain relief tests.

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

Draft	Report on voting
86B/5185/FDIS	86B/5216/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.

A list of all parts in the IEC 61753, published under the general title *Fibre optic interconnecting devices and passive components - Performance standard*, can be found on the IEC website.

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.

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.

1 Scope

This part of IEC 61753 defines the minimum initial test and measurement requirements and severities which multimode fibre optic connectors terminated as a pigtail or patchcord satisfy in order to be categorized as meeting the IEC standard category C (controlled environment), as defined in IEC 61753-1.

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 60793-2-10, *Optical fibres - Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres*

IEC 60794-2-23 *Optical fibre cables - Part 2-23: Indoor cables - Detailed specification for multi-fibre cables for use in MPO connector terminated cable assemblies*

IEC 60794-2-50, *Optical fibre cables - Part 2-50: Indoor cables - Family specification for simplex and duplex cables for use in terminated cable assemblies*

IEC 61300-1, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 1 General and guidance*

IEC 61300-2-1, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-1: Tests - Vibration (sinusoidal)*

IEC 61300-2-2:2009, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-2: Tests - Mating durability*

IEC 61300-2-4, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-4: Tests - Fibre or cable retention*

IEC 61300-2-5, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-5: Tests - Torsion*

IEC 61300-2-6, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-6: Tests - Tensile strength of coupling mechanism*

IEC 61300-2-12:2009, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-12: Tests - Impact*

IEC 61300-2-17, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-17: Tests - Cold*

IEC 61300-2-18, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-18: Tests - Dry heat*

IEC 61300-2-19, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-19: Tests - Damp heat (steady state)*

IEC 61300-2-22, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-22: Tests - Change of temperature*

Bibliography

[1] IEC 61754-4, *Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 4: Type SC connector family*

[2] IEC 61754-20, *Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 20: Type LC connector family*

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