

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Performance standard –
Part 131-03: Single-mode mechanical fibre splice for category OP – Outdoor protected environment**

**Dispositifs d'interconnexion et composants passifs fibroniques – Norme de performance –
Partie 131-03: Épissure mécanique de fibres unimodales pour catégorie OP – Environnement extérieur protégé**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES AND
PASSIVE COMPONENTS – PERFORMANCE STANDARD –****Part 131-03: Single-mode mechanical fibre splice
for category OP – Outdoor protected environment**

FOREWORD

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IEC 61753-131-03 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 IEC 61753-131-3 first edition published in 2010. This edition constitutes a technical revision.

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

- a) addition of definitions;
- b) addition of IEC 60068-2-10 mould growth test and test severities for materials;
- c) replacement of the IEC 61753-1:2007 category U tests and test severities by the IEC 61753-1:2018 category OP tests;

- d) addition of the requirement that dimensions are in accordance with IEC 61756-1;
- e) addition of the bending moment test;
- f) change of low temperature in cold test and change of temperature test to -25°C . If 40°C is required, the user can refer to category OP+.

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

Draft	Report on voting
86B/4500/FDIS	86B/4524/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, Part 1 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/standardsdev/publications.

A list of all parts in the IEC 61753 series, published under the general title *Fibre optic interconnecting devices and passive components – Performance standard*, 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,
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- amended.

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – PERFORMANCE STANDARD –

Part 131-03: Single-mode mechanical fibre splice for category OP – Outdoor protected environment

1 Scope

This part of IEC 61753 contains the minimum tests, test severities and measurement requirements which a mechanical fibre splice need to satisfy in order to be categorized as meeting the requirements of single-mode fibre splice for use in category OP (Outdoor protected) environments, as defined in IEC 61753-1.

This document for mechanical splices defines the requirements for standard optical performance under a set of specified conditions. The standard contains a series or a set of tests and measurements with clearly stated conditions, severities and pass/fail criteria. The series of tests, commonly referred to as an operating service environment or performance category, is intended to be a basis to prove the product's ability to satisfy the requirements of a specific application, market sector or user group.

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 60068-2-10, *Environmental testing – Part 2-10: Tests – Test J and guidance: Mould growth*

IEC 60793-2-50, *Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres*

IEC 61073-1, *Fibre optic interconnecting devices and passive components – Mechanical splices and fusion splice protectors for optical fibres and cables – Part 1: Generic specification*

IEC 61300 (all parts), *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*

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 61300-2-4, *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*