



BSI Standards Publication

# Fibre optic interconnecting devices and passive components performance standard

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Part 101-03: Fibre management systems for category OP — Outdoor protected environment

## National foreword

This British Standard is the UK implementation of EN IEC 61753-101-03:2021. It is identical to IEC 61753-101-03:2021. It supersedes BS EN 61753-101-3:2009, which will be withdrawn on 30 May 2022.

The UK participation in its preparation was entrusted to Technical Committee GEL/86/2, Fibre optic interconnecting devices and passive components.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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### Amendments/corrigenda issued since publication

Date	Text affected
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EUROPEAN STANDARD

**EN IEC 61753-101-03**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2021

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Supersedes EN 61753-101-3:2008 and all of its  
amendments and corrigenda (if any)

English Version

**Fibre optic interconnecting devices and passive components  
performance standard - Part 101-03: Fibre management  
systems for category OP - Outdoor protected environment  
(IEC 61753-101-03:2021)**

Norme de performance pour les dispositifs d'interconnexion  
et composants passifs fibroniques - Partie 101-03:  
Systèmes de gestion de fibres pour la catégorie OP -  
Environnement extérieur protégé  
(IEC 61753-101-03:2021)

Lichtwellenleiter - Verbindungselemente und passive  
Bauteile - Betriebsverhalten - Teil 101-3:  
Einzelfasermanagementsysteme für die Kategorie OP -  
Geschützte Freiluftanwendungen  
(IEC 61753-101-03:2021)

This European Standard was approved by CENELEC on 2021-11-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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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 86B/4497/FDIS, future edition 1 of IEC 61753-101-03, prepared by SC 86B “Fibre optic interconnecting devices and passive components” of IEC/TC 86 “Fibre optics” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61753-101-03:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-08-01 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2022-11-01 document have to be withdrawn

This document supersedes EN 61753-101-3:2008 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 61753-101-03:2021 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-1 NOTE Harmonized as EN 60068-1

IEC 60332 (series) NOTE Harmonized as EN IEC 60332 (series)

IEC 60794-2 NOTE Harmonized as EN 60794-2

IEC 60794-3 NOTE Harmonized as EN 60794-3

IEC 61300 (series) NOTE Harmonized as EN 61300 (series)

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES AND  
PASSIVE COMPONENTS PERFORMANCE STANDARD –****Part 101-03: Fibre management systems for category OP –  
Outdoor protected environment**

## FOREWORD

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IEC 61753-101-03 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 61753-101-3 the first edition published in 2006. This edition constitutes a technical revision.

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

- a) the terms and definitions have been updated according to IEC 61753-1:2018 and IEC 61756-1:2019;
- b) the test severities have been updated according to IEC 61753-1:2018;
- c) detailed material tests for mould growth (IEC 60068-2-10) and UV light exposure (ISO 4892-3) have been added;

- d) the detailed transport performance requirements have been removed;
- e) IEC 60793-2-50 subcategory B-657 fibres for test samples in Annex A has been added.

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

Draft	Report on voting
86B/4497/FDIS	86B/4522/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://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](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## **FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS PERFORMANCE STANDARD –**

### **Part 101-03: Fibre management systems for category OP – Outdoor protected environment**

#### **1 Scope**

This part of IEC 61753 contains the minimum tests, test severities and measurement requirements which a fibre management system need to meet in order to be categorised as meeting the IEC standard, category OP – Outdoor Protected environment, as defined in IEC 61753-1.

This performance standard for fibre management systems defines the requirements for standard optical performance under a set of specified conditions. It 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 60721-3-1, *Classification of environmental conditions – Part 3-1: Classification of groups of environmental parameters and their severities – Storage*

IEC 60721-3-2, *Classification of environmental conditions – Part 3-2: Classification of groups of environmental parameters and their severities – Transportation and handling*

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

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 61300-2-9, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-9: Tests – Shock*

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