

STN	Optovláknové spájacie prvky a pasívne súčiastky Norma na prevádzkové charakteristiky Časť 071-02: Bezkonektorové jednovidové optovláknové priestorové spínače 1 × 2 a 2 × 2 pre kategóriu C – kontrolované prostredia	STN EN IEC 61753-071-02 35 9254
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Fibre optic interconnecting devices and passive components - Performance standard - Part 071-02: Non-connectorized single-mode fibre optic 1 2 and 2 2 spatial switches for category C - Controlled environments

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. 12/20

Obsahuje: EN IEC 61753-071-02:2020, IEC 61753-071-02:2020

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EUROPEAN STANDARD

EN IEC 61753-071-02

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2020

ICS 33.180.20

Supersedes EN 61753-071-2:2014 and all of its amendments and corrigenda (if any)

English Version

**Fibre optic interconnecting devices and passive components -
Performance standard - Part 071-02: Non-connectorized single-
mode fibre optic 1 × 2 and 2 × 2 spatial switches for category C -
Controlled environments
(IEC 61753-071-02:2020)**

Dispositifs d'interconnexion et composants passifs
fibroniques - Norme de performance - Partie 071-02:
Commutateurs spatiaux optiques unimodaux 1 x 2 et 2 x 2
non connectorisés pour la catégorie C - Environnements
contrôlés
(IEC 61753-071-02:2020)

Lichtwellenleiter - Verbindungselemente und passive
Bauteile - Betriebsverhalten - Teil 071-2: Nicht mit
Steckverbindern versehene räumliche 1 x 2 und 2 x 2
Einmodenschalter für die Kategorie C - Kontrollierte
Umgebung
(IEC 61753-071-02:2020)

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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

EN IEC 61753-071-02:2020 (E)**European foreword**

The text of document 86B/4324/FDIS, future edition 1 of IEC 61753-071-02, 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 61753-071-02:2020.

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) 2021-07-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-10-27

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The text of the International Standard IEC 61753-071-02:2020 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 61300-3-3	NOTE	Harmonized as EN 61300-3-3
IEC 61300-3-4	NOTE	Harmonized as EN 61300-3-4
IEC 61753-071-2:2014	NOTE	Harmonized as EN 61753-071-2:2014 (not modified)
IEC 61753-1:2018	NOTE	Harmonized as EN IEC 61753-1:2018 (not modified)
IEC 62343-1	NOTE	Harmonized as EN IEC 62343-1

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.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-27	2008	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	2009
IEC 60793-2-50	-	Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres	EN IEC 60793-2-50	-
IEC 60794-2-50	-	Optical fibre cables - Part 2-50: Indoor optical fibre cables - Family specification for simplex and duplex cables for use in terminated cable assemblies	EN IEC 60794-2-50	-
IEC 60876-1	-	Fibre optic interconnecting devices and passive components - Fibre optic spatial switches - Part 1: Generic specification	EN 60876-1	-
IEC 61300	series	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	EN IEC 61300-2-4	-
IEC 61300-2-5	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-5: Tests - Torsion	-	-

EN IEC 61753-071-02:2020 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61300-2-9	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-9: Tests - Shock	EN 61300-2-9	-
IEC 61300-2-14	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-14: Tests - High optical power	-	-
IEC 61300-2-17	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-17: Tests - Cold	EN 61300-2-17	-
IEC 61300-2-18	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-18: Tests - Dry heat - High temperature endurance	EN 61300-2-18	-
IEC 61300-2-19	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-19: Tests - Damp heat (steady state)	EN 61300-2-19	-
IEC 61300-2-22	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-22: Tests - Change of temperature	EN 61300-2-22	-
IEC 61300-2-42	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-42: Tests - Static side load for strain relief	EN 61300-2-42	-
IEC 61300-2-44	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-44: Tests - Flexing of the strain relief of fibre optic devices	EN 61300-2-44	-
IEC 61300-3-2	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-2: Examinations and measurements - Polarization dependence of a single-mode fibre optic device	-	-
IEC 61300-3-6	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-6: Examinations and measurements - Return loss	EN 61300-3-6	-

EN IEC 61753-071-02:2020 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61300-3-7	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-7: Examinations and measurements - Wavelength dependence of attenuation and return loss of single mode components	-	-
IEC 61300-3-21	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-21: Examinations and measurements - Switching time	EN IEC 61300-3-21	-
IEC 61300-3-28	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-28: Examinations and measurements - Transient loss	EN 61300-3-28	-
IEC 61300-3-50	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-50: Examinations and measurements - Crosstalk for optical spatial switches	EN 61300-3-50	-
IEC/TS 62627-09	-	Fibre optic interconnecting devices and passive components - Vocabulary for passive optical devices	-	-



IEC 61753-071-02

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components –
Performance standard –
Part 071-02: Non-connectorized single-mode fibre optic 1 × 2 and 2 × 2 spatial
switches for category C – Controlled environments**

**Dispositifs d'interconnexion et composants passifs fibroniques –
Norme de performance –
Partie 071-02: Commutateurs spatiaux optiques unimodaux 1 × 2 et 2 × 2
non connectorisés pour la catégorie C – Environnements contrôlés**



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IEC 61753-071-02

Edition 1.0 2020-09

INTERNATIONAL STANDARD

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Performance standard –
Part 071-02: Non-connectorized single-mode fibre optic 1 × 2 and 2 × 2 spatial
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**Dispositifs d'interconnexion et composants passifs fibroniques –
Norme de performance –
Partie 071-02: Commutateurs spatiaux optiques unimodaux 1 × 2 et 2 × 2
non connectorisés pour la catégorie C – Environnements contrôlés**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES
AND PASSIVE COMPONENTS –
PERFORMANCE STANDARD –****Part 071-02: Non-connectorized single-mode fibre optic 1 × 2 and
2 × 2 spatial switches for category C – Controlled environments**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61753-071-02 has been prepared by subcommittee SC 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee TC 86: Fibre optics.

This first edition cancels and replaces IEC 61753-071-2 published in 2014. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 61753-071-2:2014.

- a) addition of performance requirements of repeatability and switching durability;
- b) deleting of performance requirements of directivity;
- c) deleting of test of operational shock;
- d) change of performance requirements of switching time;

- e) change of test condition of high optical power;
- f) harmonization of the test conditions with IEC 61753-1:2018.

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

FDIS	Report on voting
86B/4324/FDIS	86B/4334/RVD

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

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

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 "<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 071-02: Non-connectorized single-mode fibre optic 1 × 2 and 2 × 2 spatial switches for category C – Controlled environments

1 Scope

This part of IEC 61753 contains the minimum initial test and measurement requirements and severities which non-connectorized single-mode fibre optic 1 × 2 and 2 × 2 spatial switches need to satisfy in order to be categorized as meeting the requirements of category C – controlled environments, as defined in Annex A of IEC 61753-1:2018.

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 60068-2-27:2008, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

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

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

IEC 60876-1, *Fibre optic interconnecting devices and passive components – Fibre optic spatial switches – Part 1: Generic specification*

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

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*

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

IEC 61300-2-14, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-14: Tests – High optical power*

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 – High temperature endurance*

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*

IEC 61300-2-42, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-42: Tests – Static side load for strain relief*

IEC 61300-2-44, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-44: Tests – Flexing of the strain relief of fibre optic devices*

IEC 61300-3-2, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-2: Examination and measurements – Polarization dependent loss in a single-mode fibre optic device*

IEC 61300-3-6, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-6: Examinations and measurements – Return loss*

IEC 61300-3-7, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-7: Examinations and measurements – Wavelength dependence of attenuation and return loss of single mode components*

IEC 61300-3-21, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-21: Examinations and measurements – Switching time*

IEC 61300-3-28, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-28: Examinations and measurements – Transient loss*

IEC 61300-3-50, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-50: Examinations and measurements – Crosstalk for optical spatial switches*

IEC TS 62627-09, *Fibre optic interconnecting devices and passive components – Vocabulary for passive optical devices*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN