

<b>STN</b>	<b>Optovláknové spájacie prvky a pasívne súčiastky. Norma na prevádzkové charakteristiky. Časť 071-2: Bezkonektorové jednovidové optovláknové priestorové spínače 1 × 2 a 2 × 2 pre kategóriu C - kontrolované prostredia.</b>	<b>STN EN 61753-071-2</b>  <b>35 9254</b>
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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. 11/14

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**EUROPEAN STANDARD**  
**NORME EUROPÉENNE**  
**EUROPÄISCHE NORM**

**EN 61753-071-2**

July 2014

ICS 33.180.20

English Version

**Fibre optic interconnecting devices and passive components -  
 Performance standard - Part 071-2: Non-connectorized single-  
 mode fibre optic  $1 \times 2$  and  $2 \times 2$  spatial switches for category C -  
 Controlled environments  
 (IEC 61753-071-2:2014)**

Dispositifs d'interconnexion et composants passifs à fibres  
 optiques - Norme de performance - Partie 071-2:  
 Commutateurs spatiaux optiques unimodaux  $1 \times 2$  et  $2 \times 2$   
 non connectorisés pour la catégorie C - Environnements  
 contrôlés  
 (CEI 61753-071-2:2014)

Lichtwellenleiter - Verbindungselemente und passive  
 Bauteile - Betriebsverhalten - Teil 071-2: Nicht mit  
 Steckverbindern versehene räumliche  $1 \times 2$  und  $2 \times 2$   
 Einmodenschalter für die Kategorie C - Kontrollierte  
 Umgebung  
 (IEC 61753-071-2:2014)

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## Foreword

The text of document 86B/3748/FDIS, future edition 1 of IEC 61753-071-2, 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 61753-071-2:2014.

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) 2015-03-17
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-06-17

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## Endorsement notice

The text of the International Standard IEC 61753-071-2:2014 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	Harmonised as EN 61300-3-3.
IEC 61300-3-4	NOTE	Harmonised as EN 61300-3-4.
IEC 61300-3-6	NOTE	Harmonised as EN 61300-3-6.
IEC 62343-2	NOTE	Harmonised as EN 62343-2.

## Annex ZA (normative)

### **Normative references to international publications with their corresponding European publications**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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	EN 61300 (Series)	-
IEC 61300-2-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-1: Tests - Vibration (sinusoidal)	EN 61300-2-1	-
IEC 61300-2-4	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-4: Tests - Fibre/cable retention	EN 61300-2-4	-
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	EN 61300-2-14	-
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	-	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	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 dependent loss in a single-mode fibre optic device	EN 61300-3-2	-
IEC 61300-3-7-(mod)	-	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	EN 61300-3-7	-
IEC 61300-3-20	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-20: Examinations and measurements - Directivity of fibre optic branching devices	EN 61300-3-20	-
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 61300-3-21	-
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 61753-1	2007	Fibre optic interconnecting devices and passive components performance standard -- Part 1: General and guidance for performance standards	EN 61753-1	2007



# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Performance standard –**

**Part 071-2: Non-connectorized single-mode fibre optic  $1 \times 2$  and  $2 \times 2$  spatial switches for category C – Controlled environments**

**Dispositifs d'interconnexion et composants passifs à fibres optiques – Norme de performance –**

**Partie 071-2: Commutateurs spatiaux optiques unimodaux  $1 \times 2$  et  $2 \times 2$  non connectorisés pour la catégorie C – Environnements contrôlés**





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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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**Fibre optic interconnecting devices and passive components – Performance standard –**

**Part 071-2: Non-connectorized single-mode fibre optic  $1 \times 2$  and  $2 \times 2$  spatial switches for category C – Controlled environments**

**Dispositifs d'interconnexion et composants passifs à fibres optiques – Norme de performance –**

**Partie 071-2: Commutateurs spatiaux optiques unimodaux  $1 \times 2$  et  $2 \times 2$  non connectorisés pour la catégorie C – Environnements contrôlés**

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## CONTENTS

FOREWORD .....	3
1 Scope .....	5
2 Normative references .....	5
3 Terms and definitions .....	6
4 Test conditions .....	7
5 Test report .....	8
6 Reference components .....	8
7 Performance requirements .....	8
7.1 Dimensions .....	8
7.2 Test details and requirements .....	8
Annex A (normative) Sample size .....	13
Bibliography .....	14
 Figure 1 – Configuration of $1 \times 2$ spatial switch .....	6
Figure 2 – Configuration of $2 \times 2$ spatial switch, non-crossover type .....	7
Figure 3 – Configuration of $2 \times 2$ spatial switch, crossover type .....	7
 Table 1 – Single-mode spectral bands .....	8
Table 2 – Test details and requirements .....	8
Table A.1 – Number of samples for each test .....	13

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

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

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International Standard IEC 61753-071-2 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components of IEC technical committee 86: Fibre optics.

The text of this standard is based on the following documents:

FDIS	Report on voting
86B/3748/FDIS	86B/3777/RVD

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

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

A list of all parts of IEC 61753 series, 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 publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

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

### Part 071-2: Non-connectorized single-mode fibre optic $1 \times 2$ and $2 \times 2$ 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  $1 \times 2$  and  $2 \times 2$  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 61753-1:2007.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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/cable retention*

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

IEC 61300-2-14, *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 connectors*

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 61300-3-7, *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 61300-3-20, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-20: Examinations and measurements – Directivity of fibre optic branching devices*

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

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 61753-1:2007, *Fibre optic interconnecting devices and passive components performance standard – Part 1: General and guidance for performance standards*

IEC/TR 62343-6-5, *Dynamic modules – Part 6-5: Investigation of operating mechanical shock and vibration tests for dynamic modules*

ITU-T G-series Recommendations: *Transmission systems and media,digital systems and networks – Supplement 39, Optical system design and engineering considerations*

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