## INTERNATIONAL STANDARD

# IEC 61300-2-5

Second edition 2002-12

Fibre optic interconnecting devices and passive components –
Basic test and measurement procedures –

Part 2-5:

Tests - Torsion/twist

Dispositifs d'interconnexion et composants passifs à fibres optiques

Methodes fondamentales d'essais et de mesures –

Partie 2-5:

Essais - Torsion/rotation



#### **Publication numbering**

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PRICE CODE



#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

### FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

#### Part 2-5: Tests - Torsion/twist

#### **FOREWORD**

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International Standard IEC 61300-2-5 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/1744/FDIS	86B/1768/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 3.

IEC 61300 consists of the following parts, under the general title: Fibre optic interconnecting devices and passive components – Basic test and measurement procedures:

- Part 1: General and guidance
- Part 2: Tests
- Part 3: Examinations and measurements

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

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- withdrawn;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

A bilingual version of this publication may be issued at a later date.



### FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

#### Part 2-5: Tests - Torsion/Twist

#### 1 Scope

This part of IEC 61300 establishes a test to determine the ability of the cable attachment element of the device under test to withstand torsional loads while under tension, as might be experienced during installation and normal service. The scope of the test also includes those elements designed for ribbon cables.

#### 2 Normative references

The following referenced documents are indispensable for the application 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 61300-1, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General guidance

IEC 61300-3-1, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-1; Examinations and measurements – Visual examination

IEC 61300-3-3, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-3: Examinations and measurements - Monitoring change in attenuation and in return loss (multiple paths)

IEC 61300-3-4, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-4: Examinations and measurements – Attenuation

#### 3 General description

The cable-to-device interface, while under a specified tension, is subjected to a torsional load or twisting action to determine the effects of this action on the physical and optical properties of the device.

#### 4 Apparatus

The test apparatus shall be capable of applying simultaneously both tension and a torsional load or twisting action to the cable-to-device interface. Figure 1 shows the basic parts of a test apparatus.

#### 4.1 Mounting fixture

A mounting fixture is used for rigidly mounting the device under test and holding it in proper alignment throughout the test. The fixture shall allow the device under test to be connected to an optical source and detector for monitoring attenuation.