

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –  
Part 2-15: Tests – Torque strength of coupling mechanism**

**Dispositifs d'interconnexion et composants passifs à fibres optiques –  
Méthodes fondamentales d'essais et de mesures –  
Partie 2-15: Essais – Robustesse du mécanisme de verrouillage aux efforts  
de torsion**





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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**FIBRE OPTIC INTERCONNECTING  
DEVICES AND PASSIVE COMPONENTS –  
BASIC TEST AND MEASUREMENT PROCEDURES –****Part 2-15: Tests –  
Torque strength of coupling mechanism**

## FOREWORD

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International Standard IEC 61300-2-15 has been prepared by sub-committee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 1995. It constitutes a technical revision. Specific technical changes from the previous edition include reexamination of the pre-conditioning and rewriting of the entire composition according to the latest IEC Directives.

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

CDV	Result of voting
86B/2539/CDV	86B/2650/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.

A list of all parts of IEC 61300 series, published under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*, can be found on the IEC website.

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

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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,
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- amended.

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

## Part 2-15: Tests – Torque strength of coupling mechanism

### 1 Scope

This part of IEC 61300 applies an overload torque to twist-type coupling mechanisms. It is applicable to threaded or bayonet-twist type coupling mechanisms. It can be used to ensure that the coupling mechanism of a connector set or connector-device combination will withstand the torsional loads likely to be applied during normal service.

### 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 61300-3-1: *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-1: Examinations and measurements – Visual examination*

### 3 General description

A torsional load is smoothly applied to a mated connector set or connector-device combination in a manner that will over-torque threaded or bayonet twist-type coupling mechanisms. The torque is normally applied between the connector plug and the adapter or between the connector plug and the device being tested.

### 4 Apparatus

The test apparatus shall be capable of applying a torque, either manually or automatically, to a threaded or bayonet coupling nut while the adapter or device is held in place. An example of a test apparatus is shown in Figure 1. Some or all of the following apparatus components will be required.

#### 4.1 Stand

Use a stand capable of ensuring that the specimen and the torque applicator are always held in the proper relationship during the test.

#### 4.2 Specimen holder

The specimen holder shall be a floating fixture to which the device under test is mounted. The holder shall be prohibited from rotating, but shall otherwise be capable of moving freely in order to obtain the proper alignment between the coupling nut or cap and the adapter or other device under test.