



**NSAI**  
Standards

Irish Standard  
I.S. EN 61300-2-33:2012

Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-33: Tests - Assembly and disassembly of fibre optic mechanical splices, fibre management systems and closures (IEC 61300-2-33:2012 (EQV))

## I.S. EN 61300-2-33:2012

*Incorporating amendments/corrigenda issued since publication:*

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<i>This document replaces:</i> EN 61300-2-33:2007	<i>This document is based on:</i> EN 61300-2-33:2012 EN 61300-2-33:2007	<i>Published:</i> 5 October, 2012 26 January, 2007
This document was published under the authority of the NSAI and comes into effect on:  10 October, 2012		ICS number: 33.180.20
<b>NSAI</b> 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie  W NSAI.ie	<b>Sales:</b> T +353 1 857 6730 F +353 1 857 6729 W standards.ie
Údarás um Chaighdeáin Náisiúnta na hÉireann		

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61300-2-33**

October 2012

ICS 33.180.20

Supersedes EN 61300-2-33:2007

English version

**Fibre optic interconnecting devices and passive components -  
Basic test and measurement procedures -  
Part 2-33: Tests -  
Assembly and disassembly of fibre optic mechanical splices, fibre  
management systems and closures  
(IEC 61300-2-33:2012)**

Dispositifs d'interconnexion et composants  
passifs à fibres optiques -  
Méthodes fondamentales d'essais et de  
mesures -  
Partie 2-33: Essais -  
Montage et démontage des épissures  
mécaniques de fibres optiques, des  
systèmes de gestion des fibres et des  
boîtiers  
(CEI 61300-2-33:2012)

Lichtwellenleiter -  
Verbindungselemente und passive  
Bauteile -  
Grundlegende Prüf- und Messverfahren -  
Teil 2-33: Prüfungen -  
Montage und Demontage von  
mechanischen LWL-Spleißen,  
Fasermanagementsystemen und Muffen  
(IEC 61300-2-33:2012)

This European Standard was approved by CENELEC on 2012-08-28. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## I.S. EN 61300-2-33:2012

EN 61300-2-33:2012

- 2 -

### Foreword

The text of document 86B/3330/CDV, future edition 3 of IEC 61300-2-33, 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 61300-2-33:2012.

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) 2013-05-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2013-08-28

This document supersedes EN 61300-2-33:2007.

EN 61300-2-33:2012 includes the following significant technical changes with respect to EN 61300-2-33:2007: the inclusion of fibre management system and ancillary passive and active components as well as cable management system for the incoming and outgoing optical cables.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

### Endorsement notice

The text of the International Standard IEC 61300-2-33:2012 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61300-1      NOTE Harmonized as EN 61300-1.

## 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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 61300-3-28	-	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 61753-1	-	Fibre optic interconnecting devices and passive components performance standard - Part 1: General and guidance for performance standards	EN 61753-1	-

*This page is intentionally left BLANK.*

## CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions .....	5
4 General description.....	6
5 Procedure.....	6
5.1 Preparation of the specimen .....	6
5.2 Test procedures .....	6
5.2.1 Procedure A: Re-installation of an optical mechanical splice after disassembly.....	6
5.2.2 Procedure B: Optical stability during product reconfiguration .....	6
5.2.3 Procedure C: Sealing performance after frequent opening and closing of the enclosures .....	7
5.2.4 Ageing procedure.....	7
5.3 Severity.....	9
6 Details to be specified.....	9
Annex A (informative) Installation and intervention procedure for closure – optical stability .....	10
Bibliography .....	11
Table 1 – Ageing procedure between two cycles of assembly and disassembly of fibre optic mechanical splices and closures .....	8
Table 2 – Number of assembly/disassembly cycles for different operating environments .....	9

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

---

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

#### **Part 2-33: Tests – Assembly and disassembly of fibre optic mechanical splices, fibre management systems and closures**

### 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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61300-2-33 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This third edition cancels and replaces the second edition published in 2006. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition: the inclusion of fibre management system and ancillary passive and active components as well as cable management system for the incoming and outgoing optical cables.



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

CDV	Report on voting
86B/3330/CDV	86B/3406/RVC

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.

The list of all parts in the 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.

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.

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 2-33: Tests – Assembly and disassembly of fibre optic mechanical splices, fibre management systems and closures**

#### **1 Scope**

This part of the IEC 61300 series, evaluates the assembly and reassembly of a fibre optic mechanical splice, a fibre management system or a closure for a specified number of times.

The test procedures simulate the following conditions which may be encountered during the component's service lifetime:

- the ability of an optical mechanical splice to be re-installed after disassembly;
- the ability to re-enter fibre management systems and closures, by accessing fibres and optical components and making reconfigurations without disturbing transmission in adjacent fibre circuits;
- verification of the sealing performance after frequent opening and closing of enclosures.

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

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

#### **3 Terms and definitions**

For the purpose of this document, the following terms and definitions apply.

##### **3.1**

##### **closure**

all external housings except outdoor cabinets

##### **3.2**

##### **fibre management system**

system to control fibre routing from the incoming to the outgoing fibres

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-