



NSAI
Standards

Irish Standard
I.S. EN IEC 61300-2-46:2019

Fibre optic interconnecting devices and
passive components - Basic test and
measurement procedures - Part 2-46:
Tests - Damp heat, cyclic

I.S. EN IEC 61300-2-46:2019

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN IEC 61300-2-46:2019 is the adopted Irish version of the European Document EN IEC 61300-2-46:2019, Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-46: Tests - Damp heat, cyclic

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 61300-2-46

May 2019

ICS 33.180.20

Supersedes EN 61300-2-46:2006

English Version

**Fibre optic interconnecting devices and passive components -
Basic test and measurement procedures - Part 2-46: Tests -
Damp heat, cyclic
(IEC 61300-2-46:2019)**

Dispositifs d'interconnexion et composants passifs à fibres
optiques - Méthodes fondamentales d'essais et de mesures
- Partie 2-46: Essais - Chaleur humide, essai cyclique
(IEC 61300-2-46:2019)

Lichtwellenleiter - Verbindungselemente und passive
Bauteile - Grundlegende Prüf- und Messverfahren - Teil 2-
46: Prüfungen - Feuchte Wärme (zyklisch)
(IEC 61300-2-46:2019)

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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 61300-2-46:2019 (E)

European foreword

The text of document 86B/4167/FDIS, future edition 2 of IEC 61300-2-46, 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 61300-2-46:2019.

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) 2020-01-22
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The text of the International Standard IEC 61300-2-46:2019 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 60068-2-30	NOTE	Harmonized as EN 60068-2-30
IEC 60068-5-2	NOTE	Harmonized as EN 60068-5-2

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 60068-1	2013	Environmental testing - Part 1: General and guidance	EN 60068-1	2014
IEC 60068-3-6	-	Environmental testing – Part 3-6: Supporting documentation and guidance – Confirmation of the performance of temperature/humidity chambers	EN IEC 60068-3-6	-
IEC 61300-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 1: General and guidance	EN 61300-1	-
IEC 61300-3-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-1: Examinations and measurements - Visual examination	EN 61300-3-1	-
IEC 61300-3-3	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-3: Examinations and measurements - Active monitoring of changes in attenuation and return loss	EN 61300-3-3	-

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IEC 61300-2-46

Edition 2.0 2019-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –
Part 2-46: Tests – Damp heat, cyclic**

**Dispositifs d'interconnexion et composants passifs fibroniques – Méthodes fondamentales d'essais et de mesures –
Partie 2-46: Essais – Chaleur humide, essai cyclique**



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IEC 61300-2-46

Edition 2.0 2019-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –
Part 2-46: Tests – Damp heat, cyclic**

**Dispositifs d'interconnexion et composants passifs fibroniques – Méthodes fondamentales d'essais et de mesures –
Partie 2-46: Essais – Chaleur humide, essai cyclique**

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CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 General description	6
5 Apparatus	6
5.1 Chamber	6
5.2 Others	7
6 Procedure	7
6.1 Preparation of DUT	7
6.2 Initial examinations and measurements	8
6.3 Conditioning	8
6.3.1 Placing the DUT	8
6.3.2 Stabilizing	8
6.3.3 24 h cycle	9
6.4 Intermediate measurement	10
6.5 Recovery	10
6.6 Final examinations and measurements	11
7 Severities	11
8 Details to be specified	11
Bibliography	12
Figure 1 – Test – Test cycle	7
Figure 2 – Test – Stabilizing period	9
Figure 3 – Test – Recovery at controlled conditions	10

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-46: Tests – Damp heat, cyclic

FOREWORD

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International Standard IEC 61300-2-46 has been prepared by subcommittee 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 2006. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) complete revision to harmonize with IEC 60068-2-30;
- b) addition of detail description Clause 4, General description;
- c) addition of detail description Clause 5, Apparatus;
- d) addition of detail description Clause 6, Procedure.

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

FDIS	Report on voting
86B/4167/FDIS	86B/4182/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 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 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 – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 2-46: Tests – Damp heat, cyclic

1 Scope

The purpose of this part of IEC 61300 is to describe a test to determine the suitability of a fibre optic device to withstand the environmental condition of high humidity and change of temperature which can occur in actual use, storage and/or transport.

The test is primarily intended to determine the suitability of fibre optic components under conditions of high humidity – combined with cyclic temperature changes and, in general, producing condensation on the surface of the device under test (DUT). Absorption of moisture can result in swelling that would destroy functional utility, cause loss of physical strength, and cause changes in other important mechanical properties. Degradation of optical properties can also occur.

Although not necessarily intended as a simulated tropical test, this test can, nevertheless, be useful in determining moisture absorption of insulating or covering materials.

2 Normative references

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IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

IEC 60068-3-6, *Environmental testing – Part 3-6: Supporting documentation and guidance – Confirmation of the performance of temperature/humidity chambers*

IEC 61300-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General and 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 – Active monitoring of changes in attenuation and return loss*

3 Terms and definitions

No terms and definitions are listed in this document.

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