BS EN IEC 61300-2-46:2019
Incorporating corrigendum February 2022

BSI Standards Publication

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

Part 2-46: Tests — Damp heat, cyclic

bsi.

National foreword

This British Standard is the UK implementation of EN 61300-2-46:2019. It is identical to IEC 61300-2-46:2019, incorporating corrigendum February 2022. It supersedes BS EN 61300-2-46:2006, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/86/2, Fibre optic interconnecting devices and passive components.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Published by BSI Standards Limited 2022

ISBN 978 0 539 21464 2

ICS 33.180.20

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 May 2019.

Amendments/corrigenda issued since publication

Date	Text affected
31 July 2022	Implementation of IEC corrigendum February 2022: Figure 2 and Figure 3 corrected

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

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
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-04-22

This document supersedes EN 61300-2-46:2006.

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Endorsement notice

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

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-46: 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.

The contents of the corrigendum 1 (2022-02) have been included in the English part of this copy.

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

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.

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.

ISO and IEC maintain terminological databases for use in standardization at the following addresses: