

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

## Part 1: General and guidance

The European Standard EN 61300-1:2003 has the status of a British Standard

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National foreword

This British Standard is the official English language version of EN 61300-1:2003. It is identical with IEC 61300-1:2003. It supersedes BS EN 61300-1:1997 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee GEL/86, Fibre optics, to Subcommittee GEL/86/2, Fibre optic interconnecting devices and passive components, which has the responsibility to:

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Summary of pages

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**Fibre optic interconnecting devices and passive components -  
Basic test and measurement procedures  
Part 1: General and guidance  
(IEC 61300-1:2003)**

Dispositifs d'interconnexion et  
composants passifs à fibres optiques -  
Méthodes fondamentales d'essais  
et de mesures  
Partie 1: Généralités et guide  
(CEI 61300-1:2003)

Lichtwellenleiter-Verbindungselemente  
und passive Bauteile -  
Grundlegende Prüf- und Messverfahren  
Teil 1: Allgemeines und Leitfaden  
(IEC 61300-1:2003)

This European Standard was approved by CENELEC on 2003-11-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

## CENELEC

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 86B/1849/FDIS, future edition 2 of IEC 61300-1, 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 was approved by CENELEC as EN 61300-1 on 2003-11-01.

This European Standard supersedes EN 61300-1:1997.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2004-08-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2006-11-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annexes A, B and ZA are normative.  
Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61300-1:2003 was approved by CENELEC as a European Standard without any modification.

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## INTRODUCTION

The publications of the IEC 61300 series contain fundamental information on environmental testing procedures and measurement procedures relating to fibre optic interconnecting devices and passive components. They are intended to be used to achieve uniformity and reproducibility in environmental testing procedures and measurement procedures.

The term "test procedure" refers to procedures commonly known as environmental tests. The expressions "environmental conditioning" and "environmental testing" refer to the environments to which components or equipment may be exposed so that an assessment may be made of their performance under the conditions of use, transport and storage.

The term "measurement procedure" refers to those measurements which are necessary to assess the physical and optical characteristics of a component and may also be used before, during or after a test procedure to measure the effects of environmental conditioning or testing. The return loss and attenuation tests are examples of measurement procedures.

The requirements for the performance of components or equipment subjected to the test and measurement procedures described in this standard are not included. The relevant specification for the device under test defines the allowed performance limits.

When drafting a specification or purchase contract, only those tests should be specified which are necessary for the relevant components or equipment taking into account the technical and economic aspects.

The environmental test procedures are contained in the IEC 61300-2 series and the measurement procedures in the IEC 61300-3 series. Each test or measurement procedure is published as a stand-alone publication so that it may be modified, expanded or cancelled without having an effect on any other test or measurement procedure. However, it should be noted that, where practical, reference is made to other standards as opposed to repeating all or part of already existing standards. As an example, the cold test for fibre optic apparatus refers to IEC 60068-2-1, but it also provides other needed information such as purpose, recommended severities and a list of items to be specified.

Multiple methods may be contained in a test or measurement procedure. As an example, several methods of measuring attenuation are contained in the attenuation measurement procedure.

If more than one method is contained in a test or measurement procedure, the reference method is identified.