

INTERNATIONAL STANDARD

**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –
Part 2-28: Tests – Industrial atmosphere (sulphur dioxide)**



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

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CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references.....	5
3 General description.....	5
4 Apparatus.....	5
5 Procedure.....	6
5.1 General.....	6
5.2 Preconditioning.....	6
5.3 Measurements.....	6
5.4 Recovery.....	6
5.5 Final examinations and measurements.....	7
6 Severity.....	7
7 Details to be specified.....	7
Table 1 – Severities for Category E.....	7

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING
DEVICES AND PASSIVE COMPONENTS –
BASIC TEST AND MEASUREMENT PROCEDURES –****Part 2-28: Tests – Industrial atmosphere (sulphur dioxide)**

FOREWORD

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International Standard IEC 61300-2-28 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 1995. It constitutes a technical revision.

The main change with respect to the previous edition is the reconsideration of Clauses 5 and 6, Procedure and Severity, respectively.

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

FDIS	Report on voting
86B/3619/FDIS	86B/3651/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.

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

The list of all parts of IEC 61300 series, published under the general title, *Fibre optic interconnecting 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- withdrawn,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 2-28: Tests – Industrial atmosphere (sulphur dioxide)

1 Scope

The purpose of this part of IEC 61300 is to assess the corrosive effects of atmospheres polluted with sulphur dioxide on fibre optic devices. The procedure is only suitable for comparative purposes. It can be considered a general corrosion test, but which does not predict the behaviour of the devices in use.

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 60068-2-42, *Environmental testing – Part 2-42: Tests – Test Kc: Sulphur dioxide test for contacts and connections*

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*

3 General description

This test

- is intended to provide accelerated means to assess the corrosive effects of atmospheres polluted with sulphur dioxide on fibre optic devices,
- is particularly suitable for giving information on a comparative basis,
- is not suitable as a general corrosion test, i.e. it may not predict the behaviour of fibre optic devices in industrial atmospheres.

4 Apparatus

The apparatus consists of a test chamber in accordance with IEC 60068-2-42, Test Kc. The test chamber and its auxiliary parts shall be made of materials that do not react with or absorb sulphur dioxide and which do not influence the corrosive effects of the test atmosphere. The mixture of air and sulphur dioxide shall enter and leave the chamber through tubes with sufficiently large diameters such that the total flow through the chamber is at least three, but not more than five, changes of the atmosphere per hour. The exhaust from the chamber should not be allowed to enter the laboratory.

The detailed construction of the chamber including the method of producing the test atmosphere is optional provided that