IEC 61300-2-38

Edition 3.0 2023-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-38: Tests – Sealing for fibre optic sealed closures and hardened connectors using air pressure

Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures – Partie 2-38: Essais – Étanchéité des boîtiers scellés fibroniques et des connecteurs durcis fibroniques au moyen d'air comprimé



IEC 61300-2-38:2023-07(en-fr)



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 33.180.20

ISBN 978-2-8322-7297-8

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

Part 2-38: Tests – Sealing for fibre optic sealed closures and hardened connectors using air pressure

FOREWORD

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IEC 61300-2-38 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. It constitutes a technical revision.

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

a) addition of sealed hardened connectors;
b) recommended test severities from IEC 61753-1;
c) test configurations for hardened connectors and adaptors.

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

Draft	Report on voting
86B/4768/FDIS	86B/4783/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts of IEC 61300 series, 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

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

Part 2-38: Tests – Sealing for fibre optic sealed closures and hardened connectors using air pressure

1 Scope

This part of IEC 61300 presents two methods for testing the sealing performance of a fibre optic sealed closure and hardened connector using air pressure.

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 61300-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General and guidance*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61300-1 and the following apply.

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

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

3.1
hardened fibre optic connector
water and dust tight connector

Note 1 to entry: A hardened fibre optic connector is typically used for a connection in outside plant.

[SOURCE: IEC 61753-1:2018, 3.8]

3.2
sealed closure
watertight and dust-tight housing that can hold a varying overpressure or underpressure caused by temperature changes or atmospheric pressure changes

Note 1 to entry: There is no exchange of air with the outside environment when exposed to temperatures over the specified operating temperature range.

Note 2 to entry: Although often referred to as hermetic sealed closures, humidity can enter the inner closure by diffusion.

Note 3 to entry: Sealed boxes or sealed wall outlets shall be treated as sealed closures.

[SOURCE: IEC 61753-1:2018, 3.17, modified – Note 4 to entry has been deleted.]