

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –**

**Part 2-56: Tests – Wind resistance of mounted housing**

**Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures –**

**Partie 2-56: Essais – Résistance au vent des boîtiers installés**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

## **Part 2-56: Tests – Wind resistance of mounted housing**

### FOREWORD

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International Standard IEC 61300-2-56 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86B/4300/FDIS	86B/4325/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- withdrawn,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.

## INTRODUCTION

Outdoor protective housings are exposed to wind load. The housing fixings should be able to withstand the force of the wind without damage to or movement of the housing or its fixings. The method defined in this document provides reproducible conditions for testing the wind resistance of protective housings and their mounting hardware, either pole-mounted or ground-mounted, in two different horizontal directions (frontal and lateral). Additionally, the conditions for optional testing the wind resistance of pole-mounted protective housings in vertical direction are given.

Depending on the installation and the location, the wind speed can be very different. Even in the same geographic location, the wind speed can vary considerably with height above the ground (e.g. at the top of a mast). Recommended severities are included in this document and considered as a minimum.

Annex A provides reproducible conditions for testing the wind resistance of pole-mounted protective housings in vertical direction.

Annex B provides information for the calculation of the resulting force on the protective housing from wind load.

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

## **Part 2-56: Tests – Wind resistance of mounted housing**

### **1 Scope**

This part of IEC 61300 describes the test procedure to test the wind resistance of a protective housing and its mounting hardware using the fastening parts recommended by the manufacturer. The protective housing is considered to have a cuboid shape.

The applied force in this test procedure simulates a steady wind load from each direction to a protective housing and its mounting hardware fixed to a support.

### **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*

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 Terms and definitions**

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

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- ISO Online browsing platform: available at <http://www.iso.org/obp>

### **4 General description**

The device under test (DUT) is a protective housing and its mounting hardware fixed to a support using the fastening parts recommended by the manufacturer. A force is applied to the DUT at the specified rate until the required load has been reached. The load shall be applied during the specified period.

Two different installation types are considered: pole and ground mounting.

The acceptance criteria for the test shall be stated in the relevant specification. Typical failure modes include cracks, permanent deformation or other damage of the housing and fastening parts as well as movement of the housing in relation to its initial position on the pole or on the ground.