

INTERNATIONAL STANDARD



**Coaxial communication cables –
Part 1-200: Environmental test methods – General requirements**

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INTERNATIONAL STANDARD



**Coaxial communication cables –
Part 1-200: Environmental test methods – General requirements**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COAXIAL COMMUNICATION CABLES –

Part 1-200: Environmental test methods – General requirements

FOREWORD

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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 61196-1-200:2014. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 61196-1-200 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is an International Standard.

This third edition cancels and replaces the second edition published in 2014. This edition constitutes a technical revision.

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

a) Update of Annex A.

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

Draft	Report on voting
46A/1544/FDIS	46A/1555/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/standardsdev/publications.

This International Standard is to be used in conjunction with IEC 61196-1. It is based on the second edition (2005) of that document.

A list of all parts of the IEC 61196 series, under the general title: *Coaxial communication cables*, can be found on the IEC website.

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COAXIAL COMMUNICATION CABLES –

Part 1-200: Environmental test methods – General requirements

1 Scope

This part of IEC 61196 gives the general requirements and conditions for environmental tests to be performed on coaxial communication cables and applies to the IEC 61196-1-2xx series, which specifies environmental test methods for coaxial communication cables.

Further test details (e.g. temperature, duration) and/or test requirements ~~may~~ can be given in the relevant test procedure and/or the relevant sectional or detail specification.

A table with environmental test methods of the IEC 61196-1-2xx series is given in Annex A.

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 61196-1, *Coaxial communication cables – Part 1: Generic specification – General, definitions and requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61196-1 apply.

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

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

4 Sampling

4.1 Cable under test (CUT)

Unless otherwise specified in the relevant test method, the length of the CUT shall be selected to take into account the dynamic range of the measuring equipment to yield the required level of accuracy. The length should be measured with an accuracy better than 1 % unless otherwise stated in the relevant cable specification.

4.2 Pre-conditioning

The CUT shall be pre-conditioned at a constant ambient temperature for such time as to allow the specimen temperature to stabilize according to 6.1.

5 Tests

The tests required and performance characteristics applicable to each type of cable are given in the relevant cable standard.

6 Test conditions

6.1 Ambient conditions

Tests shall be made at:

- temperature: 15 °C to 35 °C,
 - relative humidity: 25 % to 75 % (no condensation),
 - air pressure: 86 kPa to 106 kPa,
- unless otherwise specified.

6.2 Tolerance on temperature values

Unless otherwise specified in the relevant specification, the tolerance on temperature shall be ± 2 °C.

7 Equipment calibration

Equipment calibration shall be considered as part of the quality system.

8 Test report

The test report shall include the measurement results and the actual measuring conditions with their maximum deviations.

Annex A (informative)

Environmental test methods of the IEC 61196-1-2xx series

IEC 61196-1-2xx, **Coaxial communication cables – Part 1-2xx: Environmental test methods**, consists of the following documents:

IEC 61196-1-200	General requirements
IEC 61196-1-201	Test for cold bend performance of cable
IEC 61196-1-202	Resistance to environmental stress cracking¹
IEC 61196-1-203	Test for water penetration of cable
IEC 61196-1-205	Resistance to solvents and contaminating fluids
IEC 61196-1-206	Climatic sequence
IEC 61196-1-208	Longitudinal pneumatic resistance
IEC 61196-1-209	Thermal cycling ²
IEC 61196-1-212	UV stability
IEC 61196-1-215	High temperature cable ageing

Publication dates, stability dates and further information can be found on the IEC web site www.iec.ch.

¹~~Under consideration.~~

²~~Under consideration.~~

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Coaxial communication cables –
Part 1-200: Environmental test methods – General requirements**

**Câbles coaxiaux de communication –
Partie 1-200: Méthodes d'essai d'environnement – Exigences générales**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COAXIAL COMMUNICATION CABLES –**Part 1-200: Environmental test methods –
General requirements****FOREWORD**

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- amended.

COAXIAL COMMUNICATION CABLES –

Part 1-200: Environmental test methods – General requirements

1 Scope

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Further test details (e.g. temperature, duration) and/or test requirements can be given in the relevant test procedure and/or the relevant sectional or detail specification.

A table with environmental test methods of the IEC 61196-1-2xx series is given in Annex A.

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.

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4.2 Pre-conditioning

The CUT shall be pre-conditioned at a constant ambient temperature for such time as to allow the specimen temperature to stabilize according to 6.1.

5 Tests

The tests required and performance characteristics applicable to each type of cable are given in the relevant cable standard.

6 Test conditions

6.1 Ambient conditions

Tests shall be made at:

- temperature: 15 °C to 35 °C,
 - relative humidity: 25 % to 75 % (no condensation),
 - air pressure: 86 kPa to 106 kPa,
- unless otherwise specified.

6.2 Tolerance on temperature values

Unless otherwise specified in the relevant specification, the tolerance on temperature shall be ± 2 °C.

7 Equipment calibration

Equipment calibration shall be considered as part of the quality system.

8 Test report

The test report shall include the measurement results and the actual measuring conditions with their maximum deviations.

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Annex A (informative)

Environmental test methods of the IEC 61196-1-2xx series

IEC 61196-1-2xx, Coaxial communication cables – Part 1-2xx: Environmental test methods, consists of the following documents:

IEC 61196-1-200	General requirements
IEC 61196-1-201	Test for cold bend performance of cable
IEC 61196-1-203	Test for water penetration of cable
IEC 61196-1-205	Resistance to solvents and contaminating fluids
IEC 61196-1-206	Climatic sequence
IEC 61196-1-208	Longitudinal pneumatic resistance
IEC 61196-1-209	Thermal cycling
IEC 61196-1-212	UV stability
IEC 61196-1-215	High temperature cable ageing

Publication dates, stability dates and further information can be found on the IEC web site www.iec.ch.

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

CÂBLES COAXIAUX DE COMMUNICATION –

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Exigences générales

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Cette troisième édition annule et remplace la deuxième édition parue en 2014. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

- a) Mise à jour de l'Annexe A.

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
46A/1544/FDIS	46A/1555/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Le présent document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/standardsdev/publications.

Cette Norme internationale doit être utilisée conjointement avec l'IEC 61196-1. Elle est fondée sur la deuxième édition (2005) du présent document.

Une liste de toutes les parties de la série IEC 61196, publiées sous le titre général: *Câbles coaxiaux de communication*, peut être consultée sur le site web de l'IEC.

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