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Date: 07 November 2023

Origin: International

**Latest date for receipt of comments: 27 December 2023**

Project No. 2023/02666

Responsible committee: PEL/213 Cable management

Interested committees:

Title: BS EN IEC 61196-1-326 Coaxial communication cables

Part 1-326: Test methods - Clamps test

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## Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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## UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

## Submission of Comments

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## Template for comments and secretariat observations

|                  |                        |
|------------------|------------------------|
| Date: xx/xx/20xx | Document: ISO/DIS xxxx |
|------------------|------------------------|

| 1  | 2                                          | (3)                          | 4               | 5                                                                                                                                  | (6)                                                                      | 7                                                  |
|----|--------------------------------------------|------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------|
| MB | Clause No./ Subclause No./Annex (e.g. 3.1) | Paragraph/Figure/ Table/Note | Type of comment | Commend (justification for change) by the MB                                                                                       | Proposed change by the MB                                                | Secretariat observations on each comment submitted |
|    | 3.1                                        | Definition 1                 | ed              | Definition is ambiguous and needs clarifying.                                                                                      | Amend to read '...so that the mains connector to which no connection...' |                                                    |
|    | 6.4                                        | Paragraph 2                  | te              | The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK. | Delete reference to UV photometer.                                       |                                                    |



# 23A/1054/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:

**IEC 61196-1-326 ED2**

DATE OF CIRCULATION:

**2023-11-03**

CLOSING DATE FOR COMMENTS:

**2024-01-26**

SUPERSEDES DOCUMENTS:

**23A/1053/RR**

IEC SC 23A : CABLE MANAGEMENT SYSTEMS

SECRETARIAT:

United Kingdom

SECRETARY:

Mr Rajeev Vagdia

OF INTEREST TO THE FOLLOWING COMMITTEES:

TC 46,SC 46A,SC 46C,SC 46F,SC 86A

PROPOSED HORIZONTAL STANDARD:



Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.

FUNCTIONS CONCERNED:

☐ EMC

☐ ENVIRONMENT

☐ QUALITY ASSURANCE

☒ SAFETY

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TITLE:

**Coaxial communication cables - Part 1-326: Test methods - Clamps test**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## COAXIAL COMMUNICATION CABLE –

## Part 1-326: Test methods – Clamps test

## FOREWORD

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IEC 61196-1-326 has been prepared by subcommittee 23A: CABLE MANAGEMENT SYSTEMS, of IEC technical committee 23: ELECTRICAL ACCESSORIES. It is an International Standard.

This second edition cancels and replaces the first edition published in 2022-10-14. This edition constitutes a technical revision.

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

- a) This is a complete rewrite of the first edition

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

| Draft    | Report on voting |
|----------|------------------|
| XX/XX/RR | XX/XX/RVD        |

153

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

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

157 This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed  
158 in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement,  
159 available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed  
160 by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

161 The committee has decided that the contents of this document will remain unchanged until  
162 the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related  
163 to the specific document. At this date, the document will be

- 164 • reconfirmed,
- 165 • withdrawn, or
- 166 • revised.

## Coaxial communication cables – Part 1-326: Test methods – Clamps test

### 1 Scope

This specification specifies the test methods of clamps for laying coaxial communication cable, including mechanical test methods and environmental test methods.

This specification applies to clamps for laying coaxial communication cables, including feeder and radiating cables.

This specification includes the following test methods:

#### a) Mechanical test methods:

- 1) Clamping force (Clause 5),
- 2) Normal tensile force (Clause 6),
- 3) Shear force (applicable to spacer clamps) (Clause 7),
- 4) Suitability test (Clause 8),
- 5) Fastener force test (applicable to feeder clamps) (Clause 9),
- 6) High cycle fatigue (applicable to spacer clamps) (Clause 10).

#### b) Environmental test methods:

- 1) Climatic sequence (Clause 11),
- 2) Salt mist (Clause 12),
- 3) Solar radiation (applicable to outdoor clamps) (Clause 13),
- 4) Cold temperature installation (applicable to spacer clamps) (Clause 14),
- 5) Fire-resistance (fireproof clamp) (applicable to spacer clamps) (Clause 15).

### 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 61196-4, *Coaxial communication cables - Part 4: Sectional specification for radiating cables*

IEC 61196-11, *Coaxial communication cables - Part 11: Sectional specification for semi-rigid cables with polyethylene (PE) dielectric*

IEC 60068-2-1, *Environmental testing - Part 2-1: Tests - Test A: Cold*

IEC 60068-2-2, *Environmental testing - Part 2-2: Tests - Test B: Dry heat*

IEC 60068-2-5, *Environmental testing - Part 2-5: Tests - Test S: Simulated solar radiation at ground level and guidance for solar radiation testing and weathering*

IEC 60068-2-30, *Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

ISO 834-1, *Fire-resistance tests - Elements of building construction Part 1: general requirements*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61196-4, IEC 61196-11 and the following apply.

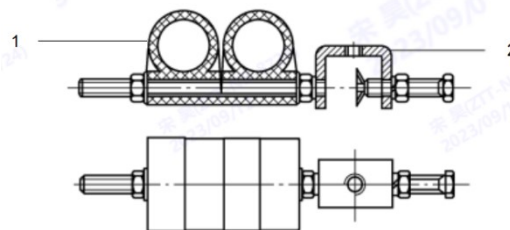
ISO and IEC maintain terminology databases for use in standardization at the following addresses:

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

#### 3.1 feeder clamp

device for clamping and fixing a coaxial communication cable (feeder cable) which complies with IEC 61196-11, as shown in Figure 1

Note 1 to entry: A feeder clamp can have one or more clips which are normally made of plastic and used to fix the feeder cable. A feeder can have one fastening device which is used to fix the feeder clamp to the building or base station tower.



Key

- 1 clip
- 2 fastening device

**Figure 1 – Schematic diagram of a feeder clamp**

#### 3.2 spacer clamp

mechanical device to install a radiating cable at a certain distance from the base or steel rope

##### 3.2.1 suspended clamp

spacer clamp to install a radiating cable on suspension steel ropes

##### 3.2.2 cantilever clamp

spacer clamp to install a radiating cable at a certain distance from the base

##### 3.2.3 fireproof clamp

spacer clamp with a fireproof device which can prevent the radiating cable falling down when fire accident happens

##### 3.2.4 fireproof device

device which can prevent the radiating cable falling down when fire accident happens

#### 3.3 same type of clamps

group of spacer clamps with same material and construction and only one or more dimensions are different

### 4 General conditions for the tests

Clamps shall be tested in following general conditions:

- Tests according to this document are type tests.
- Unless otherwise specified, the tests shall be carried out in standard atmospheric conditions as follows:

- 240 1) temperature:  $(23 \pm 2) ^\circ\text{C}$ ,  
241 2) relative humidity: (45 to 55) %,   
242 3) air pressure: (86 to 106) kPa.
- 243 c) Unless otherwise specified, tests shall be carried out with clamps assembled and  
244 installed as in normal use according to the manufacturer's or responsible vendor's  
245 instructions.
- 246 d) Tests of non-metallic clamps or composite clamps shall not be commenced earlier than  
247 168 h after manufacture.
- 248 e) When toxic or hazardous processes are used, precautions should be taken to  
249 safeguard the person performing the test.
- 250 f) If there are different sizes for each type series, the size (e.g., clamping diameter) that  
251 is most critical for this test is to be used for the respective test. The result obtained  
252 then also applies to all other sizes of this type of series by similarity.
- 253 If it cannot be technically determined which size will be the critical one, all sizes must  
254 be tested individually. All sizes must be checked individually if the manufacturer or  
255 distributor wishes to specify different performances per size.
- 256 g) The test samples must be taken as a random sample from series production. Unless  
257 otherwise defined, the sample size to be tested per test is at least 3.
- 258 h) If relative humidity or the ambient temperature has a significant effect on performance  
259 data obtained under the conditions of 4 d), these must be determined and declared.
- 260 i) The total applied load for each of the load tests shall have a tolerance of 0 % to + 3  
261 %.
- 262 j) All lengths and distances for test arrangements shall not exceed a tolerance of  $\pm 5$  %.

## 263 **5 Clamping force**

### 264 **5.1 Clamping force of feeder clamp**

#### 265 **5.1.1 Object**

266 This test is to determine the ability of the feeder clamp to hold the specified clamping  
267 force.

#### 268 **5.1.2 Procedure**

269 Test procedure is as follows:

- 270 a) Select a feeder cable with a length of approximately 200 mm, and its outer diameter  
271 should be the minimum outer diameter ( $\pm 1$  mm) of the cable which the feeder clamp  
272 can hold, and install it into one clip of the feeder clamp under test (DUT) in a normal  
273 installation manner,
- 274 b) Install DUT on the test device in the normal manner, as shown in Figure 2 and mark  
275 the place of the cable and DUT,

276