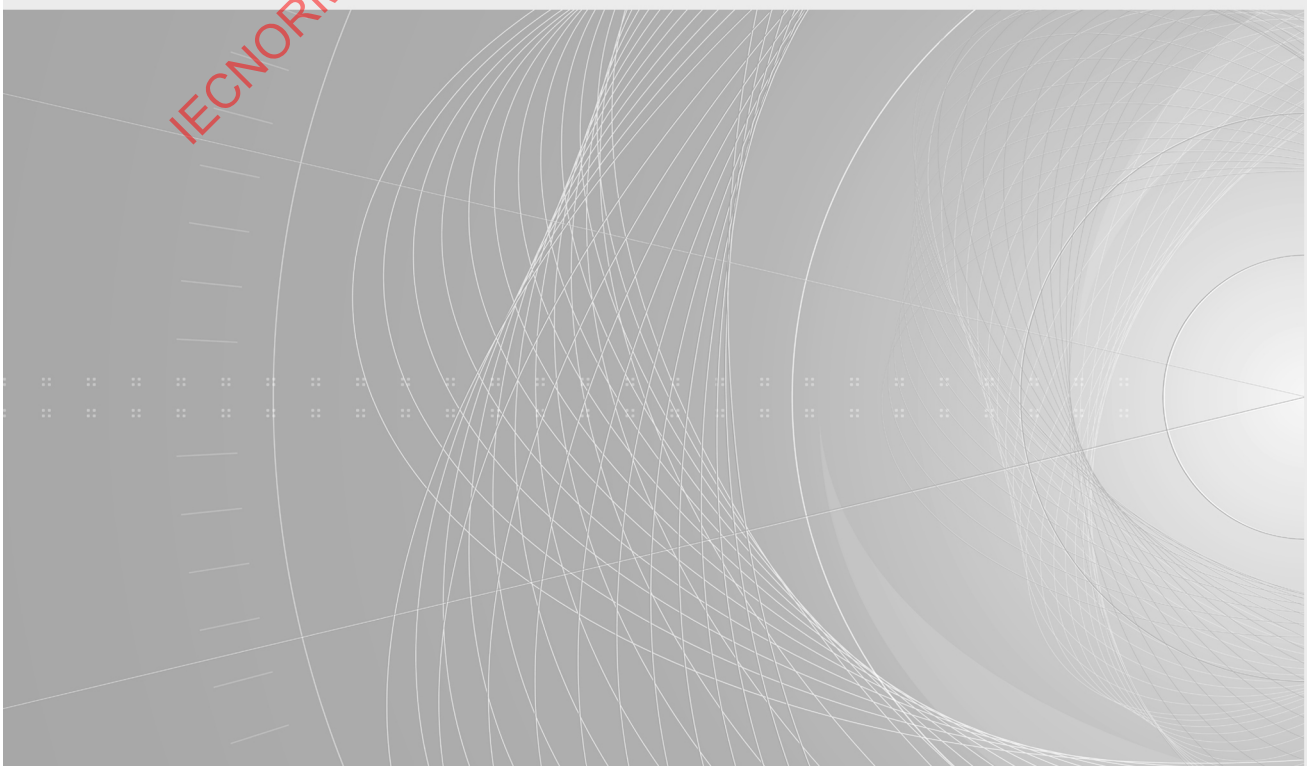
IEC 61196-7

Edition 2.0 2021-08

INTERNATIONAL STANDARD

Coaxial communication cables – Part 7: Sectional specification for cables for BCT cabling in accordance with ISO/IEC 11801-4 – Indoor drop cables for systems operating at 5 MHz – 6 000 MHz



IEC 61196-7:2021-08(en)

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

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

About the IEC
The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications
The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform
The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, …). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished
Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc
If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC online collection - oc.iec.ch
Discover our powerful search engine and read freely all the publications previews. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org
The world's leading online dictionary on electrotechnology, containing more than 22 000 terminological entries in English and French, with equivalent terms in 18 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC 61196-7

Edition 2.0 2021-08

INTERNATIONAL STANDARD

Coaxial communication cables – Part 7: Sectional specification for cables for BCT cabling in accordance with ISO/IEC 11801-4 – Indoor drop cables for systems operating at 5 MHz – 6 000 MHz

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 33.120.10

ISBN 978-2-8322-1015-6

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

COAXIAL COMMUNICATION CABLES –

Part 7: Sectional specification for cables for BCT cabling in accordance with ISO/IEC 11801-4 – Indoor drop cables for systems operating at 5 MHz – 6 000 MHz

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 61196-7 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 second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision.

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

a) extension of frequency range up to 6 GHz,
b) revised sheath marking and labelling,
c) a table with typical cable characteristics was added as Annex B.

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

FDIS	Report on voting
46A/1499/FDIS	46A/1516/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.

It is to be used in conjunction with IEC 61196-1:2005.

A list of all parts of IEC 61196 series, published under the general title *Coaxial communication cables*, 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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

COAXIAL COMMUNICATION CABLES –

Part 7: Sectional specification for cables for BCT cabling in accordance with ISO/IEC 11801-4 – Indoor drop cables for systems operating at 5 MHz – 6 000 MHz

1 Scope

This part of IEC 61196 applies to coaxial communications cables. It specifies the requirements for cables for broadcast and communications technologies (BCT) cabling in accordance with ISO/IEC 11801-4 for use in cabled television distribution networks operating at temperature between −40 °C and +70 °C and in the frequency range from 5 MHz to 6 000 MHz.

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 60096-0-1, *Radio frequency cables – Part 0-1: Guide to the design of detail specifications – Coaxial cables*

IEC 61196-1:2005, *Coaxial communication cables – Part 1: Generic specification – General, definitions and requirements*

IEC 61196-1-101, *Coaxial communication cables – Part 1-101: Electrical test methods – Test for conductor d.c. resistance of cable*

IEC 61196-1-102, *Coaxial communication cables – Part 1-102: Electrical test methods – Test for insulation resistance of cable dielectric*

IEC 61196-1-103, *Coaxial communication cables – Part 1-103: Electrical test methods – Test for capacitance of cable*

IEC 61196-1-105, *Coaxial communication cables – Part 1-105: Electrical test methods – Test for withstand voltage of cable dielectric*

IEC 61196-1-106, *Coaxial communication cables – Part 1-106: Electrical test methods – Test for withstand voltage of cable sheath*

IEC 61196-1-108, *Coaxial communication cables – Part 1-108: Electrical test methods – Test for characteristic impedance, phase and group delay, electrical length and propagation velocity*

IEC 61196-1-112, *Coaxial communication cables – Part 1-112: Electrical test methods – Test for return loss (uniformity of impedance)*

IEC 61196-1-113, *Coaxial communication cables – Part 1-113: Electrical test methods – Test for attenuation constant*

IEC 61196-1-115, *Coaxial communication cables – Part 1-115: Electrical test methods – Test for regularity of impedance (pulse/step function return loss)*

IEC 61196-1-201:2009, *Coaxial communication cables – Part 1-201: Environmental test methods – Test for cold bend performance of cable*

IEC 61196-1-203, *Coaxial communication cables – Part 1-203: Environmental test methods – Test for water penetration of cable*

IEC 61196-1-206, *Coaxial communication cables – Part 1-206: Environmental test methods – Climatic sequence*

IEC 61196-1-212, *Coaxial communication cables – Part 1-206: Environmental test methods – UV stability*

IEC 61196-1-304, *Coaxial communication cables − Part 1-304: Mechanical test methods − Impact resistance*

IEC 61196-1-308, *Coaxial communication cables – Part 1-308: Mechanical test methods – Test for tensile strength and elongation for copper-clad metals*

IEC 61196-1-313, *Coaxial communication cables – Part 1-313: Mechanical test methods – Adhesion of dielectric and sheath*

IEC 61196-1-314:2015, *Coaxial communication cables – Part 1-314: Mechanical test methods – Test for bending*

IEC 61196-1-316, *Coaxial communication cables – Part 1-316: Mechanical test methods – Test of maximum pulling force of cable*

IEC 61196-1-317, *Coaxial communication cables – Part 1-317: Mechanical test methods – Test for crush resistance of cable*

IEC 61196-1-324, *Coaxial communication cables – Part 1-324: Mechanical test methods – Test for abrasion resistance of cable*

IEC 62153-1-1, *Metallic communication cables test methods − Part 1-1: Electrical − Measurement of the pulse/step return loss in the frequency domain using the Inverse Discrete Fourier Transformation (IDFT)*

IEC 62153-4-3, *Metallic communication cable test methods – Part 4-3: Electromagnetic compatibility (EMC) – Surface transfer impedance – Triaxial method*

IEC 62153-4-4, *Metallic communication cable test methods – Part 4-4: Electromagnetic compatibility (EMC) – Test method for measuring of the screening attenuation as up to and above 3 GHz, triaxial method*

IEC 62230, *Electric cables – Spark-test method*

ISO/IEC 11801-4, *Information technology – Generic cabling for customer premises – Part 4: Single-tenant homes*

ISO/IEC TR 29106:2007, *Information technology – Generic cabling – Introduction to the MICE environmental classification*

3 Terms and definitions

For the purposes of this document, the terms and definitions of 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 Requirements for cable construction

4.1 General

When designing the cable, consideration should be paid to the maximum admissible current stated in the detail specification. The mechanical and electrical properties of the cable should be maintained across the specified operating temperatures.

This specification covers standard applications, other cables may be designed with respect to the MICE tables respectively to harsh environment depending upon agreement between customer and supplier.

A list of different cable types which indicates typical cable properties for informative purposes (for cables with copper inner conductors) is given in Annex B.

NOTE MICE tables: The so-called MICE tables describe the environmental classifications within the industrial premises, and the parameters for each kind (level) of environment (see ISO/IEC TR 29106:2007).

4.2 Inner conductor

The conductor shall meet the requirements of IEC 61196-1:2005, Subclause 4.4.1, and shall be solid or tube. Individual wires can be plain or metal coated. Dimensions shall be ≥ 0,6 mm and ≤ 1,2 mm and specified in the detail specification.

Any joint made during the final cable production should not affect the mechanical or electrical performance.

4.3 Dielectric

The dielectric shall be in accordance with IEC 61196-1:2005, Subclause 4.5.

The dielectric material(s) shall be in accordance with IEC 61196-1:2005, Subclause 4.5 and shall consist of polyolefin materials, (e.g. polyethylene or polypropylene).

The diameter of the dielectric shall be ≥ 2,7 mm and ≤ 7,3 mm and shall be specified in the detail specification.

4.4 Outer conductor or screen

The construction and material of the outer conductor and/or screen shall meet the requirements of IEC 61196-1:2005, Subclause 4.6.1 b), c), f) or g). Where option b) is used, a double braid layer is required.

For braid constructions or helically wound wires, the braid angle shall be between 15° and 45°. The coverage factor shall be greater than or equal to 65 %, or, when the cable is provided with a metal foil, greater than or equal to 25 %. These values are also valid for cables with two bi-directional layers of helically wound wires.

The diameter over the outer conductor shall be ≥ 3,2 mm and ≤ 8,0 mm and specified in the detail specification.

4.5 Filling compounds

Not applicable.

4.6 Moisture barriers

Not applicable.

4.7 Wrapping layers

Not applicable.

4.8 Sheath

The sheath shall meet the requirements of IEC 61196-1:2005, Subclause 4.7.

The diameter of the outer sheath shall be ≤ 11,0 mm and shall be specified in the detail specification.

4.9 Metallic protection

Not applicable.

4.10 Cable integral suspension strand (messenger wire)

Not applicable.

4.11 Oversheath

Not applicable.

4.12 Fauna proofing

Not applicable.

4.13 Chemical and/or environmental proofing

Not applicable.

4.14 Cable identification

4.14.1 General

IEC 61196-1:2005, Subclause 6.1 applies.

4.14.2 Sheath marking

Unless otherwise specified in the detail specification, sheath marking shall be achieved as a non-degradable print containing the minimum information:

– a number giving the nominal characteristic impedance of the cable in ohms, "75",
– a number that corresponds to the approximate dielectric outer diameter in mm; for example, the nominal dielectric diameter 3,66 mm shall be expressed by "4",
– a letter that corresponds to the different outer conductor construction types,
– a letter that corresponds to the different inner conductor types,

– a letter that corresponds to the different outer conductor construction types,
– letters that correspond to the different outer conductor materials,
– a number that corresponds to the different screening classes,
– the number of the IEC standard (61196-7),
– the name of supplier.
– the length of cable.

EXAMPLE: 75-4T-BC-ALT/BC/ALT-A – <xxx> – IEC 61196-7

More detailed information is given in Annex A.

4.14.3 Labelling

Unless otherwise specified in the detail specification, drums or coils shall be provided with a label with a non-degradable print containing the following minimum information:

– a number giving the nominal characteristic impedance of the cable in ohms, "75",
– a number that corresponds to the approximate dielectric outer diameter in mm; for example, the nominal dielectric diameter 3,66 mm shall be expressed by "4",
– a letter that corresponds to the different outer conductor construction types, see A.1.2,
– letters that correspond to the different inner conductor types, see A.1.2,
– letters that correspond to the different outer conductor construction types, see A.1.2,
– letters that correspond to the different outer conductor materials, see A.1.2,
– a designation of the different screening classes, see A.1.2,
– the name of supplier,
– the number of the IEC standard (61196-7),
– the batch part number.

More detailed information is given in Annex A.

EXAMPLE: 75-4T-BC-ALT/BC/ALT-A – <xxx> – IEC 61196-7 – 03/04 543 m

5 Tests for completed cables

5.1 Electrical tests

5.1.1 Low-frequency and DC electrical measurements

Low-frequency and DC electrical measurements are described in Table 1.

Table 1 – Low-frequency and DC electrical measurements

No.	IEC test procedure	Parameter	Requirements/Remarks
5.1.1.1	61196-1-101	Conductor resistance	Applicable, value in accordance with the detail specification
	61196-1-101	Loop resistance	≤ 90 Ω/km
5.1.1.2	61196-1-102	Insulation resistance	≥ 10^4 MΩ × km
5.1.1.3	61196-1-105	Withstand voltage of dielectric	2 kV DC or 1,5 kV AC for 1 min, unless otherwise specified in the relevant detail specification
5.1.1.4	61196-1-106	Withstand voltage of sheath	2,5 kV AC or 3,75 kV DC, unless otherwise specified in the relevant detail specification
5.1.1.5	61196-1-103	Mutual capacitance	When required, in accordance with the relevant detail specification
5.1.1.6	62230	Spark test	Test in accordance with IEC 62230, value in accordance with the detail specification
5.1.1.7	60096-0-1	Current carrying capacity	May be specified for information purposes only in the detail specification, according to IEC 60096-0-1

5.1.2 High-frequency electrical and transmission measurements

High-frequency electrical and transmission measurements are described in Table 2.

Table 2 – High-frequency electrical and transmission measurements

No.	IEC test procedure	Parameter	Requirements/Remarks
5.1.2.1	61196-1-108	Characteristic impedance	75 Ω ± 3 Ω
5.1.2.2	61196-1-108	Velocity of propagation	May be specified in the detail specification as required
5.1.2.3	61196-1-112	Return loss	RL = 20 dB min. from 5 MHz to 1 000 MHz RL = 18 dB min. from 1 000 MHz to 2 000 MHz RL = 16 dB min. from 2 000 MHz to 3 000 MHz RL = 14 dB min. from 3 000 MHz to 6 000 MHz
5.1.2.4	61196-1-113	Attenuation constant (maximum attenuation)	The maximum value at any frequency shall not be greater than calculated with the following formula: $a \times \sqrt{f} + b \times f + c$ (dB/100 m). In case of copper clad conductor material, a term $d / \sqrt{f}$ should be added to better match the curve at low frequencies. α shall be corrected to a temperature of 20 °C. The coefficients a, b, c and d (if applicable) shall be given in the relevant detail specification. NOTE a, b, c, d = least square fit coefficients. f is in MHz.
5.1.2.5	61196-1-115	Regularity of impedance	Perform on both ends of tested cable Regularity ≥ 40 dB resp ≤ 1 % Test procedure: IEC 61196-1-115 (time domain) or IEC 62153-1-1 (transformation from frequency domain into time domain by IDFT).

No.	IEC test procedure	Parameter	Requirements/Remarks
5.1.2.6	62153-4-3	Transfer impedance	Screening Class A+: ≤ 2,5 mΩ /m from 5 MHz to 30 MHz; Screening Class A: ≤ 5 mΩ /m from 5 MHz to 30 MHz; Test procedure according to IEC 62153-4-3, triaxial method, after completion of the flexure test according to 5.3.8 of this standard.
5.1.2.7	62153-4-4	Screening attenuation	Screening Class A+: ≥ 95 dB from 30 MHz to 1 000 MHz; ≥ 85 dB from 1 000 MHz to 2 000 MHz; ≥ 75 dB from 2 000 MHz to 3 000 MHz. ≥ 65 dB from 3 000 MHz to 6 000 MHz Screening Class A: ≥ 85 dB from 30 MHz to 1 000 MHz; ≥ 75 dB from 1 000 MHz to 2 000 MHz; ≥ 65 dB from 2 000 MHz to 3 000 MHz. ≥ 55 dB from 3 000 MHz to 6 000 MHz Test procedure according to IEC 62153-4-4, triaxial method, after completion of the flexure test according to 5.3.9 of this document.

5.2 Environmental testing of the finished cable

Environmental tests of the finished cable are described in Table 3.

Table 3 – Environmental tests

No.	IEC test procedure	Parameter	Requirements/Remarks
5.2.1	61196-1-201	Cold bend performance of the cable	After storage time of ≥ 24 h, samples shall be tested in accordance with IEC 61196-1-201:2009, Clause 4, method A at a temperature as stated in the relevant detail specification. [a] Radius of test mandrel: 10 × outer diameter of the cable under test No. of turns: 3. No. of cycles: 1. No physical damages of conductors, dielectric and sheaths.
5.2.2	61196-1-203	Water penetration test	Not applicable
5.2.3	61196-1-206	Climatic sequence	T_A = –20 °C; T_B = +60 °C; t_1 = 24 h, unless otherwise specified in the detail specification. No. of cycles: 3. Influenced mechanical and electrical characteristics shall be as specified in the relevant detail specification.
5.2.4	61196-1-304	Impact resistance	May be specified in the detail specification as required.
5.2.5	60068-2-78	Damp heat, steady state	Not applicable
5.2.6	61196-1-212	UV resistance	If applicable Test procedure and values are under consideration.
[a] During the bending procedure, the sample under test shall remain in the cold chamber.			

5.3 Mechanical tests

Mechanical tests are described in Table 4.

Table 4 – Mechanical tests

No.	IEC test procedure	Parameter	Requirements/Remarks
5.3.1	61196-1-304	Impact resistance	May be specified in the detail specification as required.
5.3.2	61196-1-308	Conductor elongation at break	Applicable for copper clad steel conductors only, value in accordance with the detail specification.
5.3.3	61196-1-313	Adhesion of dielectric	Sample length = 25 mm Pressure force F_a [a] required to remove dielectric shall be 0,1 MPa ≤ F_a ≤ 1,0 MPa, refer to footnotes b and c below
5.3.4	61196-1-317	Crush resistance of the cable	Load = 700 N, applied for 2 min after a 2 min recovery time, the maximum impedance irregularity shall be ≤ 1 %, when measured in accordance with IEC 61196-1-115. No physical damage of the sheath or jacket.
5.3.5	61196-1-324	Abrasion resistance of the sheath	Not applicable
5.3.6	61196-1-324	Abrasion resistance of the sheath markings	Procedure, diameter of the needle, force and number of cycles in accordance with the relevant detail specification. Markings shall remain legible.
5.3.7		Simulated installation testing of the cable, (bending under tension).	Procedure according to IEC 61196-1-314:2015, Clause 8, procedure 1, 180°, U-bend. Sample length: ≥ 50 m. Length between point A and B: 5 m. Radius of the pulleys: 8 times the outer diameter of the cable under test. Pulling force respectively weight: Maximum pulling force according to the detail specification. Number of cycles: One move forward and back. Pulling speed: ≤ 1 m/s. Attenuation, characteristic impedance, and return loss shall remain within the specified limits.
5.3.8	61196-1-316	Tensile performance	Not applicable

No.	IEC test procedure	Parameter	Requirements/Remarks
5.3.9	61196-1-314	Flexure	Procedure A: IEC 61196-1-314:2015, 8.3.3, test procedure 2 [b], Radius of the pulleys: 10 times the outer diameter of the cable under test. Pulling force respectively weight: Maximum pulling force of the cable under test, according to the detail specification. Number of cycles: One move forward and back. Pulling speed: ≤ 1 m/s. Procedure B: IEC 61196-1-314:2015, 4.3.2 Radius of the mandrel: 10 times the outer diameter of the cable under test. Number of cycles: Two, whereas the sample under test shall be turned at 180° along its longitudinal axis during the second turn. Pulling force respectively weight: Maximum pulling force of the cable under test, according to the detail specification. Turns per helix: The length of the helix shall at least comply with the length under test of the screening tests according to 5.1.2.6 and 5.1.2.7. The longitudinal attenuation, the characteristic impedance, and the return loss shall remain within the specified limits.
5.3.10		Flexure endurance	Not applicable

[a] The adhesion of the dielectric to the inner conductor, F_a, is given in MPa by the following equation: $F_a = \frac{F}{\pi \times d \times l}$ where F is the force, d is the diameter of the inner conductor, l is the length of the sample.

[b] Contrary to IEC 61196-1-314, also the pulleys may be moved from point A to point B, while the cable with the weight is fixed.

5.4 Fire performance test methods (FFS)

Tests are performed in accordance with local and/or national regulation.

NOTE IEC TR 62222 could be used if requested by local or national regulations.

Annex A
(normative)

Cable identification and marking

A.1 Cable identification

A.1.1 Type name

Cable type shall be identified by the following:

– a number giving the nominal characteristic impedance of the cable in ohms, "75",
– a number that corresponds to the approximate dielectric outer diameter in mm; for example, the nominal dielectric diameter 3,66 mm shall be expressed by "4",
– a letter that corresponds to the different outer conductor construction types, see A.1.2,
– letters that correspond to the different inner conductor types, see A.1.2,
– letters that correspond to the different outer conductor construction types, see A.1.2,
– letters that correspond to the different outer conductor materials, see A.1.2,
– a designation of the different screening classes, see A.1.2,
– the name of the supplier,
– the number of the IEC standard (61196-7).

A.1.2 Variants

The variant of cables should be identified by the following:

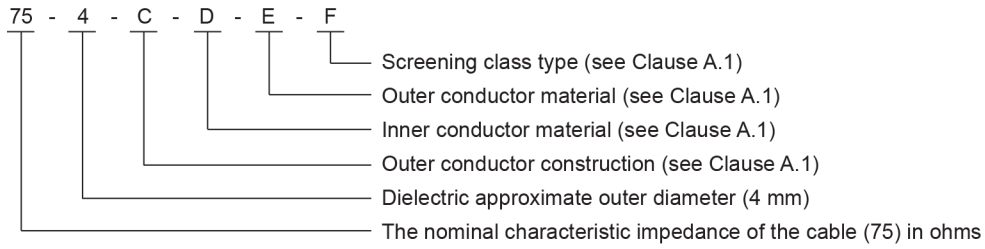
1) type name (75),
2) approximate dielectric outer diameter (4)
3) outer conductor construction distinguishing letters:
   S – Standard shield outer conductor (foil/braid)
   T – Tri-shield shield outer conductor (foil/braid/foil)
   Q – Quad-shield shield outer conductor (foil/braid/foil/braid)
4) inner conductor material
   BC – Bare copper
   CCS – Copper clad steel
5) outer conductor material
   a) ALT – Aluminium-polymeric laminated tape
   b) AL – Aluminium alloy wire
   c) TC – Tinned copper wire
   e.g. ALT/TC/ALT or ALT/AL/ALT/AL
6) screening class (same class for transfer impedance and screening attenuation)
   a) A+, A, B or C.

A.1.3 Screening classes

Screening classes of transfer impedance and screening attenuation shall be consistent. The lower class determines the screening class of the overall cable: e.g. if the transfer impedance fulfils the requirement of screening class B and the screening attenuation fulfils the requirement of screening class A, then the overall screening class of the cable is screening class B, not class A.

A.2 Cable marking

Cable marking consists of variants and IEC standard number, for example:



Example: 75-4T-BC-ALT/BC/ALT-A – <xxx> – IEC 61196-7