

**SLOVENSKI STANDARD**  
**SIST EN 60966-2-4:1999****01-maj-1999**

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**Radio frequency and coaxial cable assemblies - Part 2-4: Detail specification for cable assemblies for radio and TV receivers (Frequency range 0 to 3 000 MHz, IEC 60169-2 connectors) (IEC 60966-2-4:1997)**

Radio frequency and coaxial cable assemblies -- Part 2-4: Detail specification for cable assemblies for radio and TV receivers (Frequency range 0 to 3 000 MHz, IEC 60169-2 connectors)

Konfekcionirane koaksialne in visokofrekvenčne kabele -- del 2-4: Bauartspezifikation für konfekcionirane kabele für Ton- und Fernsehempfänger (Frequenzbereich 0 bis 3000 MHz, IEC 60169-2 Steckverbinder)

[SIST EN 60966-2-4:1999](https://standards.iteh.ai/catalog/standards/sist/26709c82-c73d-4e34-aab2-616c0c000000/sist-en-60966-2-4-1999)

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Ensemble de cordons coaxiaux et de cordons pour fréquences radioélectriques -- Partie 2-4: Spécification particulière pour cordons de connexion de récepteurs TV ou radio (Bande de fréquence de 0 à 3 000 MHz, connecteurs CEI 60169-2)

**Ta slovenski standard je istoveten z: EN 60966-2-4:1997**

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**ICS:**

33.120.10 Koaksialni kabli. Valovodi Coaxial cables. Waveguides

**SIST EN 60966-2-4:1999****en**

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EUROPEAN STANDARD  
 NORME EUROPÉENNE  
 EUROPÄISCHE NORM

**EN 60966-2-4**

December 1997

ICS 33.120.10

English version

**Radio frequency and coaxial cable assemblies**  
**Part 2-4: Detail specification for cable assemblies for radio and TV receivers**  
**(Frequency range 0 to 3 000 MHz, IEC 60169-2 connectors)**  
**(IEC 60966-2-4:1997)**

Ensemble de cordons coaxiaux et  
 de cordons pour fréquences  
 radioélectriques  
 Partie 2-4: Spécification particulière  
 pour cordons de connexion de  
 récepteurs TV ou radio (Bande de  
 fréquence de 0 à 3 000 MHz,  
 connecteurs CEI 60169-2)  
 (CEI 60966-2-4:1997)

Konfektionierte Koaxial- und  
 Hochfrequenz-Kabel  
 Teil 2-4: Bauartspezifikation für  
 konfektionierte Kabel für Ton- und  
 Fernsehgrundfunkempfänger  
 (Frequenzbereich 0 bis 3000 MHz,  
 IEC 60169-2 Steckverbinder)  
 (IEC 60966-2-4:1997)

[SIST EN 60966-2-4:1999](https://standards.iteh.ai/catalog/standards/sist/26709c82-c73d-4e34-aab2-26709c82-c73d-4e34-aab2)

[https://standards.iteh.ai/catalog/standards/sist/26709c82-c73d-4e34-aab2-](https://standards.iteh.ai/catalog/standards/sist/26709c82-c73d-4e34-aab2-26709c82-c73d-4e34-aab2)

This European Standard was approved by CENELEC on 1997-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
 Comité Européen de Normalisation Electrotechnique  
 Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

### Foreword

The text of document 46A/295/FDIS, future edition 1 of IEC 60966-2-4, prepared by SC 46A, Coaxial cables, of IEC TC 46, Cables, wires, waveguides, R.F. connectors, and accessories for communication and signalling, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60966-2-4 on 1997-10-01.

The following dates were fixed:

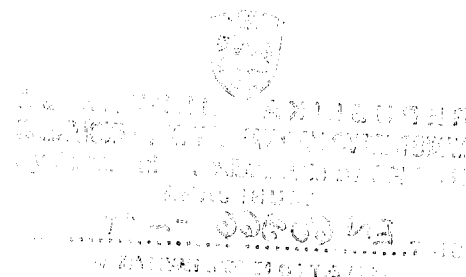
- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1998-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1998-09-01

### Endorsement notice

The text of the International Standard IEC 60966-2-4:1997 was approved by CENELEC as a European Standard without any modification.

In the official version, for the Introduction the following notes have to be added for the standards indicated:

- iTeh STANDARD PREVIEW**  
(standards.iteh.ai)
- IEC 60966-1 NOTE: Harmonized, together with its amendment 1:1990, as EN 60966-1:1993 (not modified).
- IEC 60966-2-1 NOTE: Harmonized as EN 60966-2-1:1995 (not modified).  
<https://standards.iteh.ai/catalog/standards/sist/26709c82-c73d-4e34-aab2-1e0022222222/iec-60966-2-1-1995>
- IEC 60966-2-2 NOTE: Harmonized as EN 60966-2-2:1994 (not modified).  
<https://standards.iteh.ai/catalog/standards/sist/26709c82-c73d-4e34-aab2-1e0022222222/iec-60966-2-2-1994>
- IEC 60169-2 NOTE: Harmonized, together with its amendment 1:1982, as HD 134.2 S2:1994 (not modified).



**NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD**

**CEI  
IEC**

**60966-2-4**

Première édition  
First edition  
1997-12

**Ensemble de cordons coaxiaux et de cordons  
pour fréquences radioélectriques –**

**Partie 2-4:**

**Spécification particulière pour cordons  
de connexion de récepteurs TV ou radio  
(Bande de fréquence de 0 à 3 000 MHz,  
connecteurs CEI 60169-2)**

[SIST EN 60966-2-4:1999](https://standards.iteh.ai/catalog/standards/sist/26709c82-c73d-4e34-aab2-)

<https://standards.iteh.ai/catalog/standards/sist/26709c82-c73d-4e34-aab2->

**Radio frequency and coaxial cable assemblies –**

**Part 2-4:**

**Detail specification for cable assemblies  
for radio and TV receivers  
(Frequency range 0 to 3 000 MHz,  
IEC 60169-2 connectors)**

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IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

**D**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## RADIO FREQUENCY AND COAXIAL CABLE ASSEMBLIES -

Part 2-4: Detail specification for cable assemblies  
for radio and TV receivers  
(Frequency range 0 to 3 000 MHz, IEC 60169-2 connectors)

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60966-2-4 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, r.f. connectors and accessories for communication and signalling.

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

FDIS	Report on voting
46A/295/FDIS	46A/307/RVD

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

## INTRODUCTION

This detail specification relates to cable assemblies for radio and TV receivers, and in particular to the cable subfamily 9.52.

This detail specification should be used together with the following IEC publications:

IEC 60966-1:1988, *Generic specification for radio frequency and coaxial cable assemblies – Part 1: General requirements and test methods*

IEC 60966-2-1:1991, *Radio frequency and coaxial cable assemblies – Part 2-1: Sectional specification for flexible coaxial cable assemblies*

IEC 60966-2-2:1992, *Radio frequency and coaxial cable assemblies – Part 2-2: Blank detail specification for flexible coaxial cable assemblies*

Reference documents:

IEC 60169-2:1965, *Radio-frequency connectors – Part 2: Coaxial unmatched television aerial feeder connector*



IEC 60410:1973, *Sampling plans and procedures for inspection by attributes*

IEC 61022:1989, *Interconnection of radio and TV receivers to feeder system outlets*

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<p>[1] <b>Elaboré par:</b> <i>Prepared by:</i> IEC SC 46A</p>		<p>[2] <b>Document n°</b> IEC 60966-2-4 <b>Indice/Issue:</b> First Issue <b>Date:</b> 21/11/97</p>																							
<p>[3] <b>Disponible auprès de:</b> <i>Available from:</i> CEI/IEC 3, rue de Varembe Genève Suisse</p>	<p>[4] <b>Spécification générique :</b> CEI/IEC 60966-1 <i>Generic specification:</i> <b>Spécification intermédiaire :</b> CEI/IEC 60966-2-1 <i>Sectional specification:</i> <b>Spécification particulière cadre :</b> CEI/IEC 60966-2-2 <i>Blank detail specification:</i></p>																								
<p>[5] <b>Références complémentaires:</b> <i>Additional references:</i></p>																									
<p><b>Spécification particulière pour cordons de connexion de récepteurs TV ou radio</b> <i>Detail specification for cable assemblies for radio and TV receivers</i></p>																									
<div style="text-align: center;">  <p><b>[6]</b> <span style="color: red; font-size: 2em; opacity: 0.5;">iTeH STANDARD PREVIEW</span> <span style="color: red; font-size: 1.5em; opacity: 0.5;">(standards.iteh.ai)</span></p> <p style="text-align: right; font-size: 0.8em;">IEC 1521/97</p> </div>																									
<p>[7] <b>Impédance caractéristique:</b> 75 Ω <i>Characteristic impedance:</i></p>	<p>[8] <b>Bande de fréquence:</b> 0 à / to 3 GHz <i>Frequency range:</i></p>																								
<p>[9] <b>Masse:</b> <i>Weight:</i> 40 g/m + 50 g (typically)</p>	<p>[10] <b>Rayon de courbure minimal:</b> <i>Minimum inside radius:</i> <b>Pour les pliages statiques:</b> 25 mm <i>For static bending:</i> <b>Pour les pliages dynamiques:</b> <i>For dynamic bending:</i></p>																								
<p>[11] <b>Catégorie climatique:</b> <i>Climatic category:</i></p>	<p>[12] <b>Groupes d'essais applicables:</b> <i>Applicable test groups:</i></p>																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 20%;">A</th> <th style="width: 20%;">B</th> <th style="width: 20%;">C</th> <th style="width: 20%;">D</th> </tr> </thead> <tbody> <tr> <td><b>Connecteur / Connector type</b></td> <td>CEI/IEC 60169-2 (9.52) Fiche droite / Straight plug</td> <td>CEI/IEC 60169-2 (9.52) Prise droite / Straight socket</td> <td>CEI/IEC 60169-2 (9.52) Fiche coudée/Right angle plug</td> <td>CEI/IEC 60169-2 (9.52) Prise coudée/Right angle socket</td> </tr> <tr> <td><b>Câble / Cable type</b></td> <td>96 CEI/IEC 75 ou équivalent / or equivalent</td> <td>96 CEI/IEC 75 ou équivalent / or equivalent</td> <td>96 CEI/IEC 75 ou équivalent / or equivalent</td> <td>96 CEI/IEC 75 ou équivalent / or equivalent</td> </tr> <tr> <td><b>Marquage / Marking</b></td> <td>Optionnel / Optional</td> <td>Optionnel / Optional</td> <td>Optionnel / Optional</td> <td>Optionnel / Optional</td> </tr> <tr> <td><b>Manchons/Taper sleeves:</b></td> <td colspan="4">Des deux côtés (couleur en option) / On both ends (colour optional)</td> </tr> </tbody> </table>		A	B	C	D	<b>Connecteur / Connector type</b>	CEI/IEC 60169-2 (9.52) Fiche droite / Straight plug	CEI/IEC 60169-2 (9.52) Prise droite / Straight socket	CEI/IEC 60169-2 (9.52) Fiche coudée/Right angle plug	CEI/IEC 60169-2 (9.52) Prise coudée/Right angle socket	<b>Câble / Cable type</b>	96 CEI/IEC 75 ou équivalent / or equivalent	96 CEI/IEC 75 ou équivalent / or equivalent	96 CEI/IEC 75 ou équivalent / or equivalent	96 CEI/IEC 75 ou équivalent / or equivalent	<b>Marquage / Marking</b>	Optionnel / Optional	Optionnel / Optional	Optionnel / Optional	Optionnel / Optional	<b>Manchons/Taper sleeves:</b>	Des deux côtés (couleur en option) / On both ends (colour optional)			
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<p>[14] <b>Variantes/Variants:</b></p> <ol style="list-style-type: none"> <li>1 A-A</li> <li>2 A-B</li> <li>3 A-C</li> <li>4 A-D</li> </ol>	<p>[15] Page 1 sur 3 pages <i>Page 1 of 3 pages</i></p>																								



[16] Valeurs et caractéristiques à respecter <i>Inspection values, ratings or characteristics</i>	[17] Paragraphe <i>Subclause</i>	[18] Valeur <i>Value</i>	[19] Remarques <i>Remarks</i>
<b>Electrique/Electrical</b>			
<b>Caractéristiques de réflexion</b> <i>Reflection properties</i>	9.1	≥ 20 dB ≥ 15 dB ≥ 12 dB ≥ 10 dB	5 MHz à/to 400 MHz 400 MHz à/to 862 MHz 862 MHz à/to 1 GHz 1 GHz à/to 3 GHz
<b>Pertes d'insertion</b> <i>Insertion loss</i>	9.3	< 0,08 + 0,4 dB/m	Jusqu'à/up to 3 GHz
<b>Efficacité d'écran</b> <i>Screening effectiveness</i>	9.9	> 75 dB > 55 dB	Jusqu'à/up to 1 GHz Jusqu'à/up to 3 GHz
<b>Tension de tenue</b> <i>Voltage proof</i>	9.10	≥ 1,0 kV	Valeur crête / <i>Peak value</i> 50 Hz
<b>Résistance d'isolement</b> <i>Insulation resistance</i>	9.11	≥ 10 <sup>5</sup> MΩ	Tension d'essai / <i>Test voltage</i> 500 V
<b>Continuité du conducteur intérieur et du conducteur extérieur</b> <i>Inner and outer conductor continuity</i>	9.12	OK	Basse tension continue / <i>Low voltage d.c.</i>
<b>Mécanique/Mechanical</b>			
<b>Traction</b> <i>Tensile</i>	10.1	45 N	Interface OK Durée / <i>Duration</i> 1 min Essai / <i>Test</i> 9.12
<b>Ecrasement du câble</b> <i>Cable crushing</i>	10.4	700 N	Essai / <i>Test</i> 9.3
<b>Flexion/</b> <i>Flexure</i>	10.2	500 cycles	Force 5 N 20/min Essai / <i>Test</i> 9.9
<b>Endurance à la flexion</b> <i>Flexing endurance</i>	10.3	20 cycles	Essai / <i>Test</i> 9.12 & 9.9

Sous procédure d'homologation, la qualification doit être menée selon 13.3 de la CEI 60966-2-1 en prenant en compte les variantes spécifiées. Seuls les essais dont les résultats pourraient dépendre des variantes doivent être refaits.

Sous procédure d'agrément de savoir-faire, la qualification doit être menée sur les CQC correspondants comme défini en 13.4 de la CEI 60966-2-1 et décrit dans le manuel de savoir-faire (CM). Sauf prescriptions contraires dans le CM, seuls les essais lots par lots des groupes Ba et Eb étant exécutés sur les produits livrés, tous les autres essais doivent être menés sur les CQC comme défini en 13.4 de la CEI 60966-2-1 et décrit dans le CM.

*Under qualification approval, the qualification shall be conducted in accordance with 13.3 of IEC 60966-2-1 taking into account the specified variants. Only the tests whose results might depend on the variants shall be repeated.*

*Under capability approval, the qualification shall be conducted on the relating CQCs as defined in 13.4 of IEC 60966-2-1 and described in the capability manual (CM). Unless otherwise specified in the CM, only lot by lot tests from groups Ba and Eb shall be conducted on delivered products, all other tests shall be performed on CQCs as defined in 13.4 of IEC 60966-2-1 and described in the CM*