
Radio-frequency connectors - Part 36: Sectional specification for microminiature r.f. coaxial connectors with snap-on coupling - Characteristic impedance 50 Ohm (type MCX) (IEC 61169-36:1996)

Radio-frequency connectors -- Part 36: Sectional specification for microminiature r.f. coaxial connectors with snap-on coupling - Characteristic impedance 50 ohm (type MCX)

Hochfrequenz-Steckverbinder -- Teil 36: Rahmenspezifikation für Microminiatur HF-Koaxialsteckverbinder mit Einrastkupplung - Wellenwiderstand 50 Ohm (Typ MCX)
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Connecteurs pour fréquences radioélectriques -- Partie 36: Spécification intermédiaire pour les connecteurs microminiatures coaxiaux pour fréquences radioélectriques à accouplement par encliquetage - Impédance caractéristique 50 ohm (type MCX)

Ta slovenski standard je istoveten z: EN 61169-36:1997

ICS:

33.120.30 Radiofrenkvenčni konektorji R.F. connectors
(RF)

SIST EN 61169-36:1998**en**

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English version

Radio-frequency connectors
Part 36: Sectional specification for microminiature r.f. coaxial connectors
with snap-on coupling - Characteristic impedance 50 ohm (type MCX)
(IEC 1169-36:1996)

Connecteurs pour fréquences
radioélectriques
Partie 36: Spécification intermédiaire
pour les connecteurs microminiatures
coaxiaux pour fréquences
radioélectriques à accouplement par
encliquetage - Impédance
caractéristique 50 ohm (type MCX)
(CEI 1169-36:1996)

SIST EN 61169-36:1998

Hochfrequenz-Steckverbinder
Teil 36: Rahmenspezifikation für
Microminiatur HF-Koaxialsteckverbinder
mit Einrastkupplung - Wellenwiderstand
50 Ohm (Typ MCX)
(IEC 1169-36:1996)

This European Standard was approved by CENELEC on 1997-03-11. 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.

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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 the International Standard IEC 1169-36:1996, prepared by SC 46D, RF connectors, of IEC TC 46, Cables, wires, waveguides, R.F. connectors, and accessories for communication and signalling, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 61169-36 on 1997-03-11 without any modification.

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) 1998-03-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1998-03-01

This part 36 of EN 61169 is to be used in conjunction with EN 61169-1:1994 and its amendment A1:1996.

Endorsement notice

The text of the International Standard IEC 1169-36:1996 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 96-2	1988	Radio-frequency cables - Part 2: Relevant cable specifications (corrigendum 1993)	-	-
IEC 1169-1	1992	Radio-frequency connectors Part 1: Generic specification - General requirements and measuring methods	EN 61169-1	1994
QC 001005	1994	Register of Firms, Products and Services approved under the IECQ System, including ISO 9000	-	-

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Connecteurs pour fréquences radioélectriques

Partie 36:

Connecteurs microminiatures

pour fréquences radioélectriques

à accouplement par encliquetage –

Impédance caractéristique 50 Ω (type MCX)

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Radio-frequency connectors

Part 36:

Microminiature r.f. coaxial connectors

with snap-on coupling –

Characteristic impedance 50 Ω (type MCX)

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International Electrotechnical Commission
Telefax: +41 22 919 0300

3, rue de Varembe Geneva, Switzerland
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



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Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

RADIO-FREQUENCY CONNECTORS –
Part 36: Microminiature r.f. coaxial connectors with
snap-on coupling –
Characteristic impedance 50 Ω (type MCX)

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 cooperation 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.
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International Standard IEC 1169-36 has been prepared by sub-committee 46D: r.f. connectors, 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
46D/250/FDIS	46D/268/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.

This standard shall be read in conjunction with IEC 1169-1.

The QC number that appears on the front cover of this publication is the specification number in the IEC Quality Assessment System for Electronic Components (IECQ).

RADIO-FREQUENCY CONNECTORS –
Part 36: Microminiature r.f. coaxial connectors
with snap-on coupling –
Characteristic impedance 50 Ω (type MCX)

1 General

1.1 Scope

This part of IEC 1169 concerns microminiature coaxial connectors for use with flexible and semi-rigid r.f. cables (96 IEC 50-1-... and 96 IEC 50-2-...). These connectors have a snap-on coupling mechanism, 50 Ω impedance, an operating frequency range of 3 GHz and are known commercially as MCX connectors.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 1169. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 1169 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 96-2: 1988, *Radio-frequency cables – Part 2: Relevant cable specifications*

IEC 1169-1: 1992, *Radio-frequency connectors – Part 1: Generic specification – General requirements and measuring methods*

IEC QC 001005: *Register of firms, products and services approved under the IECQ System, including ISO 9000*

1.3 IEC type designation

Connectors conforming to this standard shall be designated by:

- a) The reference to this standard: 1169-36 IEC.
- b) Number of the grade:

grade 0 = standard test connector	= G0;
grade 2 = general purpose connector	= G2.
- c) A group of figures specifying the climatic category.

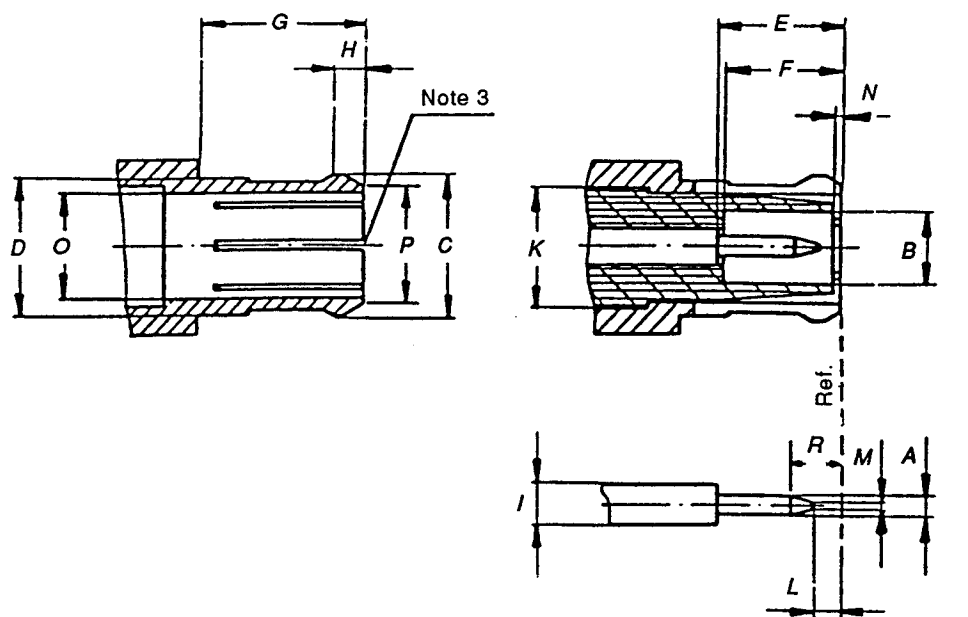
Example: 1169-36 IEC G2 (55/155/21) denotes a grade 2 connector, with coupling details as indicated in figures 1 and 2, climatic category 55/155/21.

2 Mating face and gauge information

2.1 Dimensions for general purpose connectors

Metric dimensions are original dimensions. All undimensioned pictorial configurations are for reference purposes only.

2.1.1 Plug



IEC 191/96

Figure 1 - General purpose plug

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 Table 1 - Dimensions of plug
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Reference	mm		in		Note
	min.	max.	min.	max.	
A	0,48	0,53	0,019	0,021	Diameter
B	2,00	—	0,079	—	Diameter
C	—	—	—	—	4 Diameter
D	—	3,40	—	0,134	Diameter
E	2,80	3,20	0,110	0,126	
F	2,80	—	0,110	—	
G	4,15	—	0,163	—	
H	—	—	—	—	1
I	—	—	—	—	2 Diameter
K	3,05 nominal		0,120 nominal		2 Diameter
L	0,15	—	0,006	—	
M	—	0,25	—	0,010	Diameter
N	0,00	0,30	0,000	0,012	
O	—	3,00	—	0,118	5 Diameter
P	—	3,60	—	0,142	6 Diameter
R	—	1,20	—	0,047	

1 Form and dimension of outer contact detent to meet electrical and mechanical requirements.

2 Diameter of centre conductor and of uniform transmission line to give required characteristic impedance of 50 Ω.

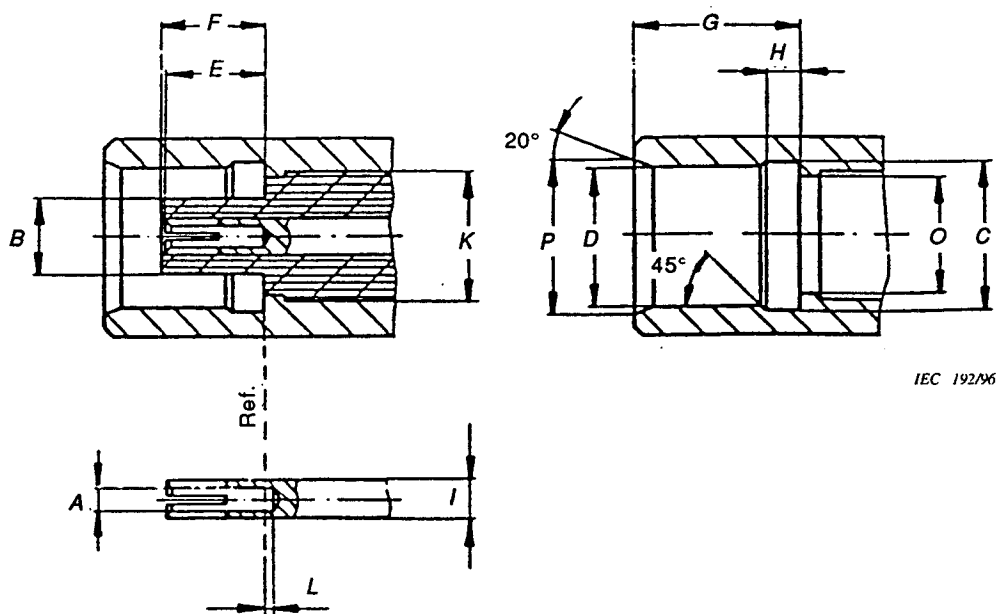
3 Number and dimensions of slots to meet electrical and mechanical requirements.

4 Opened to 3,8 mm (0,15 in) diameter maximum to meet gauge requirements.

5 Diameter chosen to meet mechanical and electrical requirements and to compensate for electrical effect of slots.

6 Prior to slotting and flaring.

2.1.2 Socket



IEC 192/96

Figure 2 – General purpose socket

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Table 2 – Dimensions of socket
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Reference	mm		in		Note
	min.	max.	min.	max.	
A	—	—	—	—	2 Diameter
B	—	1,98	—	0,078	
C	3,60	3,75	0,142	0,148	
D	3,42	3,48	0,135	0,137	Diameter
E	2,30	2,80	0,091	0,110	
F	2,60	2,80	0,102	0,110	
G	4,00	4,12	0,157	0,162	
H	0,75	0,85	0,030	0,033	
I	—	—	—	—	1 Diameter
K	3,05 nominal		0,120 nominal		1 Diameter
L	0,00	—	0,000	—	
O	—	3,00	—	0,118	Diameter
P	3,80	—	0,150	—	Diameter

1 Diameter of centre conductor and of uniform section of transmission line to give required characteristic impedance of 50 Ω.
2 Bore diameter and closure to meet electrical and mechanical requirements.
3 Angular tolerances ±2°.