

**Harmonized system of quality
assessment for electronic components**

Sectional specification: Radio frequency coaxial connectors — Series SMA

The European Standard EN 122110:1993 has the status of a
British Standard

Cooperating organizations

The European Committee for Electrotechnical Standardization (CENELEC), under whose supervision this European Standard was prepared, comprises the national committees of the following countries:

Austria	Italy
Belgium	Luxembourg
Denmark	Netherlands
Finland	Norway
France	Portugal
Germany	Spain
Greece	Sweden
Iceland	Switzerland
Ireland	United Kingdom

This British Standard, having been prepared under the direction of the Electronic Components Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 September 1994

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The following BSI references relate to the work on this standard:
Committee reference ECL/6
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Amendments issued since publication

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National foreword

This British Standard has been prepared under the direction of the Electronic Components Standards Policy Committee. It is identical with EN 122110:1993 *Sectional specification: Radio frequency coaxial connectors. Series SMA*, published by the Electronic Components Committee (CECC) of the European Committee for Electrotechnical Standardization (CENELEC).

The related British Standards, BS 9210 N0006-1:1985, BS 9210 N0006-2:1978 and BS 9210 N0006-3:1985 are withdrawn.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 28, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Descriptors: Quality, electronic components, connectors

English version

Sectional specification:
Radio frequency coaxial connectors —
Series SMA

Spécification intermédiaire:
Connecteurs coaxiaux pour fréquence
radioélectrique —
Série SMA

Rahmenspezifikation:
Hochfrequenz-Koaxial-Steckverbinder —
Serie SMA

This European Standard was approved by the CENELEC Electronic Components Committee (CECC) on 7 May 1993. 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 General Secretariat of the CECC 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 CECC General Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom. The membership of the CECC is identical, with the exception of the national electrotechnical committees of Greece, Iceland and Luxembourg.

CECC

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 CENELEC Electronic Components Committee (CECC) is composed of those member countries of the European Committee for Electrotechnical Standardization (CENELEC) who wish to take part in a harmonized System for electronic components of assessed quality.

The object of the System is to facilitate international trade by the harmonization of the specifications and quality assessment procedures for electronic components, and by the grant of an internationally recognized Mark, or Certificate, of Conformity. The components produced under the System are thereby acceptable in all member countries without further testing.

This European Standard was prepared by CECC WG 22, “RF Connectors”.

The text of the draft based on document CECC 22110 Issue 1:1982 (with A1 to A3) was submitted to the formal vote for conversion to a European Standard; together with the voting report, circulated as document CECC(Secretariat)3338 it was approved by CECC as EN 122110 on 7 May 1993.

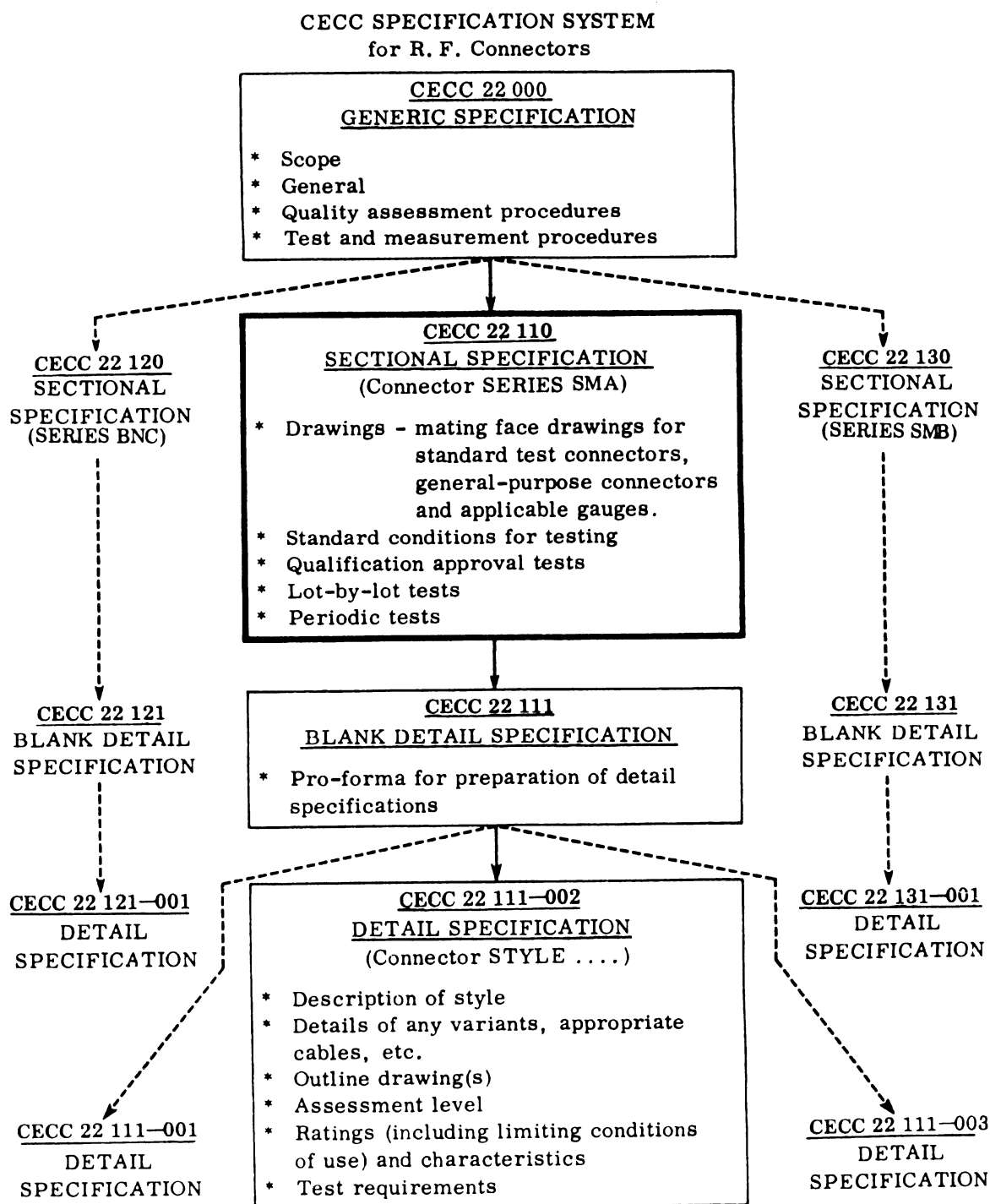
The following dates were fixed:

- latest date of announcement of the EN at national level (doa) 1993-09-03
- latest date of publication of an identical national standard^a (dop) 1994-03-03
- latest date of withdrawal of conflicting national standards^a (dow) 1995-03-03

^a National standard (excluding national implementation of IECQ specifications)

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NOTE A detail specification is a "completed" blank detail specification

Section 1. Scope

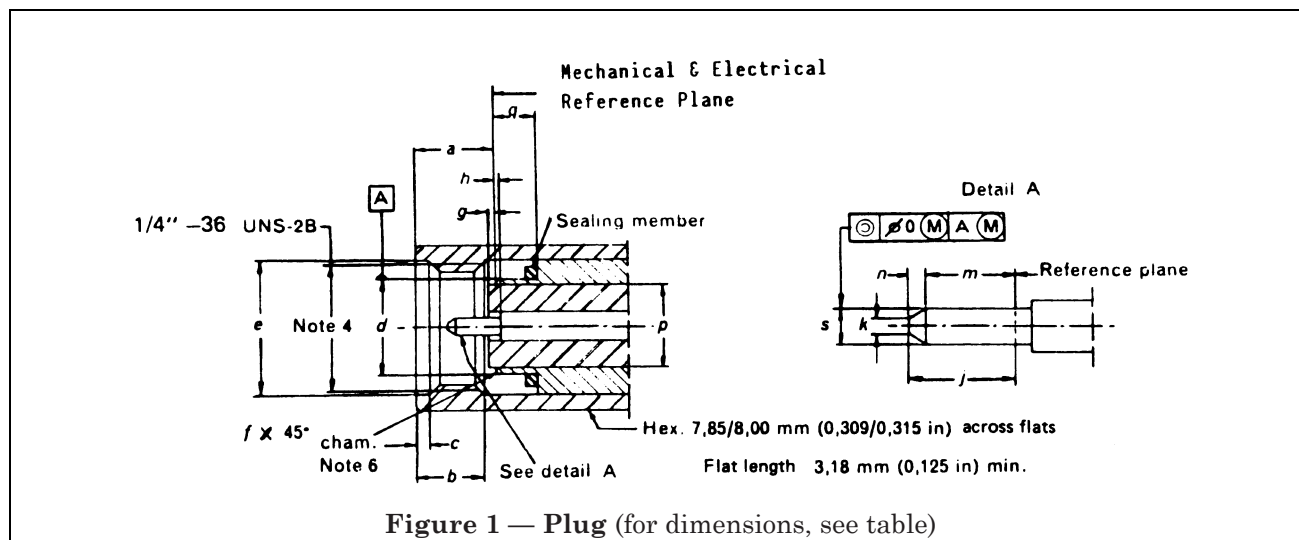
This sectional specification applies to miniature screw-coupled coaxial connectors, Series SMA. It prescribes mating-face dimensions for general purpose connectors and standard test connectors, Grade 0, together with gauging information. It also indicates recommended performance characteristics to be considered when writing detail specifications, and covers the test schedules and inspection requirements for Assessment Level M, H and U.

Section 2. Mating face and gauge information

2.1 Dimensions — General purpose connectors

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

2.1.1 Plug



Ref.	mm		in		Note
	Min.	Max.	Min.	Max.	
a	—	3,43	—	0,135	3
b	2,54	—	0,100	—	
c	0,38	1,14	0,015	0,045	
d	—	4,59	—	0,1808	diam. 4
e	6,35	—	0,250	—	diam. 4
f	—	0,08	—	0,003	6
g	—	—	—	—	5
h	0,00	—	0,000	—	
j	—	2,54	—	0,100	
k	—	0,38	—	0,015	diam.
m	1,27	—	0,050	—	
n	0,38	—	0,015	—	
p	—	4,178	—	0,1645	diam.2
q	—	—	—	—	7
s	0,902	0,940	0,0355	0,0370	diam.

NOTE 1 When centre conductor of semi-rigid cable is used to form centre contact, the conductor shall be trimmed to simulate the details shown in Figure 1, Detail A.

NOTE 2 Choose diameter to meet electrical requirements.

Dimension p refers to diameter of the dielectric in the vicinity of the reference plane and may deviate from the value given. When the centre conductor of the cable is used as the contact pin, the inner diameter of the outer conductor becomes dimension p.

NOTE 3 Coupling nut in forward position.

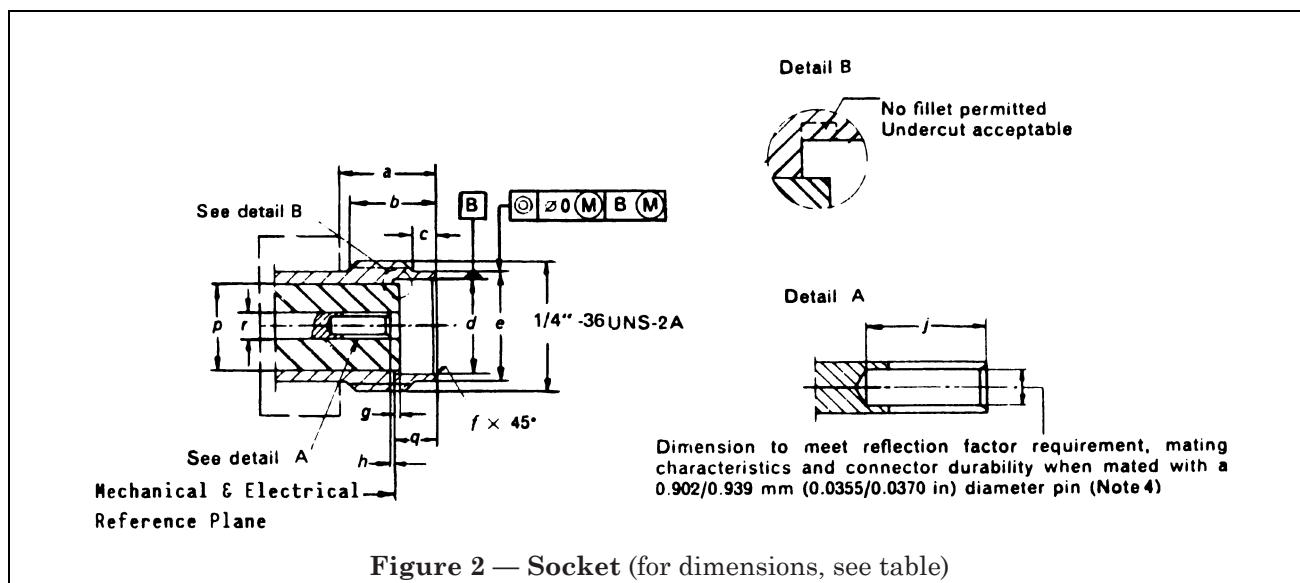
NOTE 4 Diameters d and e and screw thread when at MMC shall be on a common axis.

NOTE 5 When the dielectric is PTFE the maximum projection of the dielectric beyond the reference plane shall be 0,05 mm (0,002 in).

NOTE 6 0,08 mm (0,003 in) max. radius optional.

NOTE 7 Dimension q shall be such that the reference planes coincide and the connectors meet the required environmental performance.

2.1.2 Socket



Ref.	mm		in		Note
	Min.	Max.	Min.	Max.	
a	5,54	—	0,218	—	1
b	4,32	—	0,170	—	3
c	0,38	1,14	0,015	0,045	
d	4,60	4,67	0,1810	0,184	diam.
e	5,28	5,49	0,208	0,216	diam.
f	0	0,13	0	0,005	
g	—	—	—	—	5
h	0,00	0,41	0,000	0,016	
j	2,92	—	0,115	—	
p	—	4,178	—	0,1645	diam.
q	1,88	1,98	0,074	0,078	
r	1,245	1,295	0,049	0,051	diam. 2

NOTE 1 Minimum dimension to give clearance to coupling nut when fully mated.

NOTE 2 Choose diameter to meet electrical requirements.

NOTE 3 Minimum full thread.

NOTE 4 Bore of centre contact shall be on or capable of taking up a common axis with datum and diameter B when both are at MMC.

NOTE 5 When the dielectric is PTFE the maximum projection of the dielectric beyond the reference plane shall be 0,05 mm (0,002 in).