

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

Sectional specification: Radio frequency coaxial connectors — Series BNC

The European Standard EN 122120:1993 has the status of a
British Standard

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by Technical Committee EPL/46, Cables, wires and waveguides, RF connectors and accessories for communication and signalling, to subcommittee EPL/46/4, RF connectors, upon which the following bodies were represented:

- AEA Technology
- BEAMA Electrical Cable & Conductor Accessory Manufacturers
- British Telecommunications plc
- Federation of the Electronics Industry
- Ministry of Defence
- National Supervisory Inspectorate
- Society of Cable Television Engineers

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 December 1996

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The following BSI references relate to the work on this standard:
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Amendments issued since publication

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National foreword

This British Standard has been prepared by Subcommittee EPL/46/4 and is the English language version of EN 122120:1993 *Harmonized system of quality assessment for electronic components. Sectional specification: Radio frequency coaxial connectors. Series BNC*, published by the European Committee for Electrotechnical Standardization (CENELEC), Electronic Components Committee (CECC).

Cross-references

Publication referred to	Corresponding British Standard
CECC 22000:1992	BS CECC 22000:1993 <i>Harmonized system of quality assessment for electronic components. Generic specification. Radio frequency coaxial connectors (Parts I, II and III)</i>
	BS EN 60068 <i>Environmental testing</i>
IEC 68-2-1:1990	BS EN 60068-2 <i>Test methods</i>
	BS EN 60068-2-1:1993 <i>Tests A. Cold</i>
IEC 68-2-6:1995 ^a	BS EN 60068-2-6:1996 <i>Test Fc. Vibration (sinusoidal)</i>
	BS 2011 <i>Environmental testing</i>
IEC 68-2-13:1983	Part 2.1M:1984 <i>Test M. Low air pressure</i>
IEC 68-2-30:1980	Part 2.1Db:1981 <i>Test Db and guidance: Damp heat, cyclic (12 + 12 hour cycle)</i>

^a IEC 68-2-6:1995 supersedes IEC 68-2-6:1982.

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 32, 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.

English version

Sectional specification:
Radio frequency coaxial connectors.
Series BNC

Spécification intermédiaire:
Connecteurs coaxiaux pour fréquence
radioélectrique.
Serie BNC

Rahmenspezifikation:
Hochfrequenz-Koaxial-Steckverbinder.
Serie BNC

This European Standard was approved by the CENELEC Electronic Components Committee (CECC) on 28 June 1993. CENELEC members are bound to comply with 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 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 Central 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 22120 Issue 2:1992 was submitted to the formal vote for conversion to a European Standard; together with the voting report, circulated as document CECC (Secretariat) 3368 it was approved by CECC as EN 122120 on 28 June 1993.

The following dates were fixed:

- latest date of announcement of the EN at national level (doa) 1993-11-08
- latest date of publication of an identical national standard^a (dop) 1994-05-08
- latest date of withdrawal of conflicting national standards^a (dow) 1995-05-08

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

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Foreword

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This specification has been formally approved by the CECC, and has been prepared for those countries taking part in the System who wish to issue national harmonized specifications for RADIO FREQUENCY COAXIAL CONNECTORS SERIES BNC. It should be read in conjunction with the current regulations for the CECC System.

At the date of printing of this specification, the member countries of the CECC are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, and copies of it can be obtained from the addresses shown on the blue fly sheet.

Preface

This Sectional Specification (SS) was prepared by CECC Working Group 22: RF Connectors. It is based, wherever possible, on the Publications of the International Electrotechnical Commission and in particular on IEC 169-8.

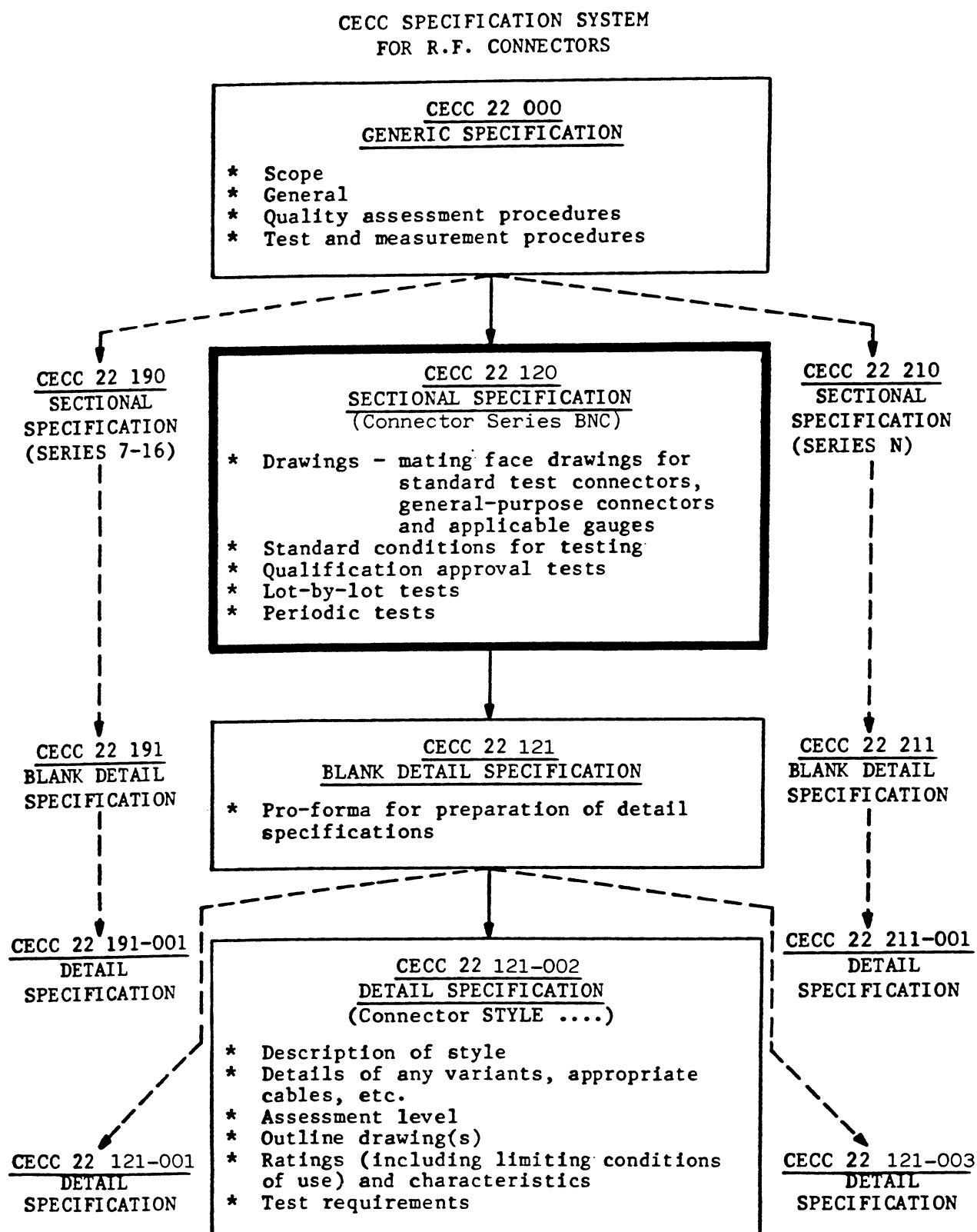
This SS and its associated blank detail specification is specific to Series BNC radio frequency connectors and their related accessories.

The text of this specification was circulated to the CECC for voting in the document indicated below and was ratified by the President of the CECC for printing as a CECC Specification.

Document	Date of Voting	Report on the Voting
CECC(Secretariat)2625	December 1990	CECC(Secretariat)2716

Series BNC connectors have a characteristic impedance of 50 Ω and are normally used for low-power quick connect/disconnect applications in conjunction with flexible coaxial cables having a diameter over the dielectric of between 2,97 mm to 3,7 mm. The connectors are useable up to a frequency of at least 4 GHz and may be used at higher frequencies if a reflection factor greater than 0,13 for straight connectors and 0,15 for right-angle connectors can be tolerated.

Document numbering for r.f. connector specifications follows 2.2 of CECC 00700-IV, in order to permit the issue of more than nine sectional specifications. The approved numbering system applicable to r.f. connector specifications is illustrated in the diagram below.



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

Section 1. Scope

This SS provides information and rules for the preparation of detail specifications (DS) for r.f. coaxial connectors Series BNC.

It prescribes the mating face dimensions for general purpose Grade 2 connectors, dimensional details for standard test connectors, Grade 0, together with gauging information and the mandatory tests selected from CECC 22000 applicable to all DSs relating to Series BNC connectors.

This specification indicates the recommended performance characteristics to be considered when writing a DS and covers test schedules and inspection requirements for Assessment Levels 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

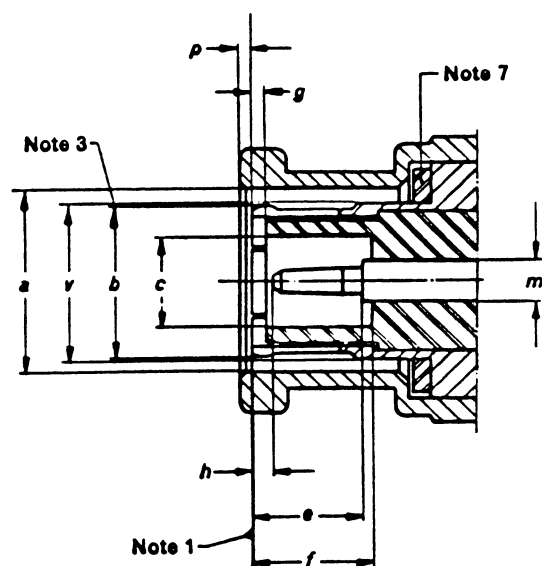


Figure 1 — Plug
(for dimensions see Table 1)

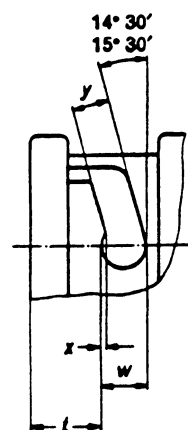


Figure 2 — Details of bayonet lock

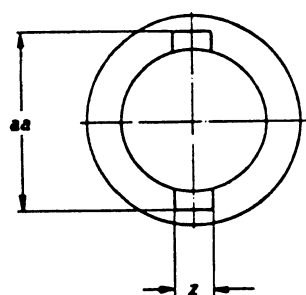


Figure 3

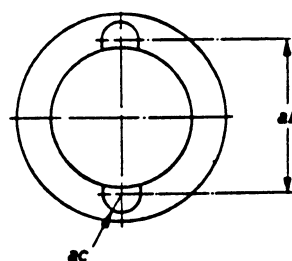


Figure 4

Details of alternative coupling grooves

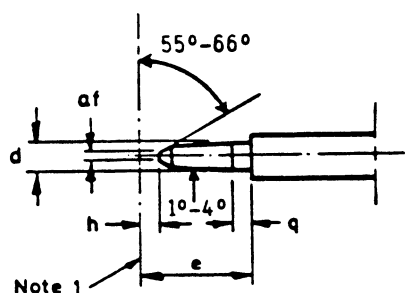


Figure 5 — Details of male centre contact

Notes on page 9.