SLOVENSKI STANDARD
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Sectional Specification: Radio frequency coaxial connectors - Series TNC

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Rahmenspezifikation: Hochfrequenz-Koaxial-Steckverbinder - Serie TNC

Spécification intermédiaire: Connecteurs coaxiaux pour fréquence radioélectrique - Série TNC

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ICS:

33.120.30	Radiofrekvenļ ni konektorji (RF)	R.F. connectors

SIST EN 122200:1999 **en**

EUROPEAN STANDARD
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UDC

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Sectional specification: Radio frequency coaxial connectors. Series TNC

Spécification intermédiaire:
Connecteurs coaxiaux pour fréquence radioélectrique.
Série TNC

Rahmenspezifikation:
Hochfrequenz-Koaxial-Steckverbinder.
Serie TNC

This European Standard was approved by the CENELEC Electronic Components Committee (CECC) on 26 December 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 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, 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

CENELEC Electronic Components Committee
Comité des Composants Electroniques du CENELEC
CENELEC-Komitee für Bauelemente der Elektronik

General Secretariat: Gartenstr. 179, D-60596 Frankfurt am Main

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 granting 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 WG22, 'RF Connectors'.

The text of the draft based on document CECC 22 200 Issue 2 : 1993 was submitted to the formal vote for conversion to a European Standard; together with the voting report, circulated as document CECC(Secretariat)3471 it was approved by CECC as EN 122 200 on 26 December 1993.

The following dates were fixed:

- latest date of announcement of the EN at national level (doa) 1994-05-02
- latest date of publication of an identical national standard* (dop) 1994-11-02
- latest date of withdrawal of conflicting national standards* (dow) 1995-11-02

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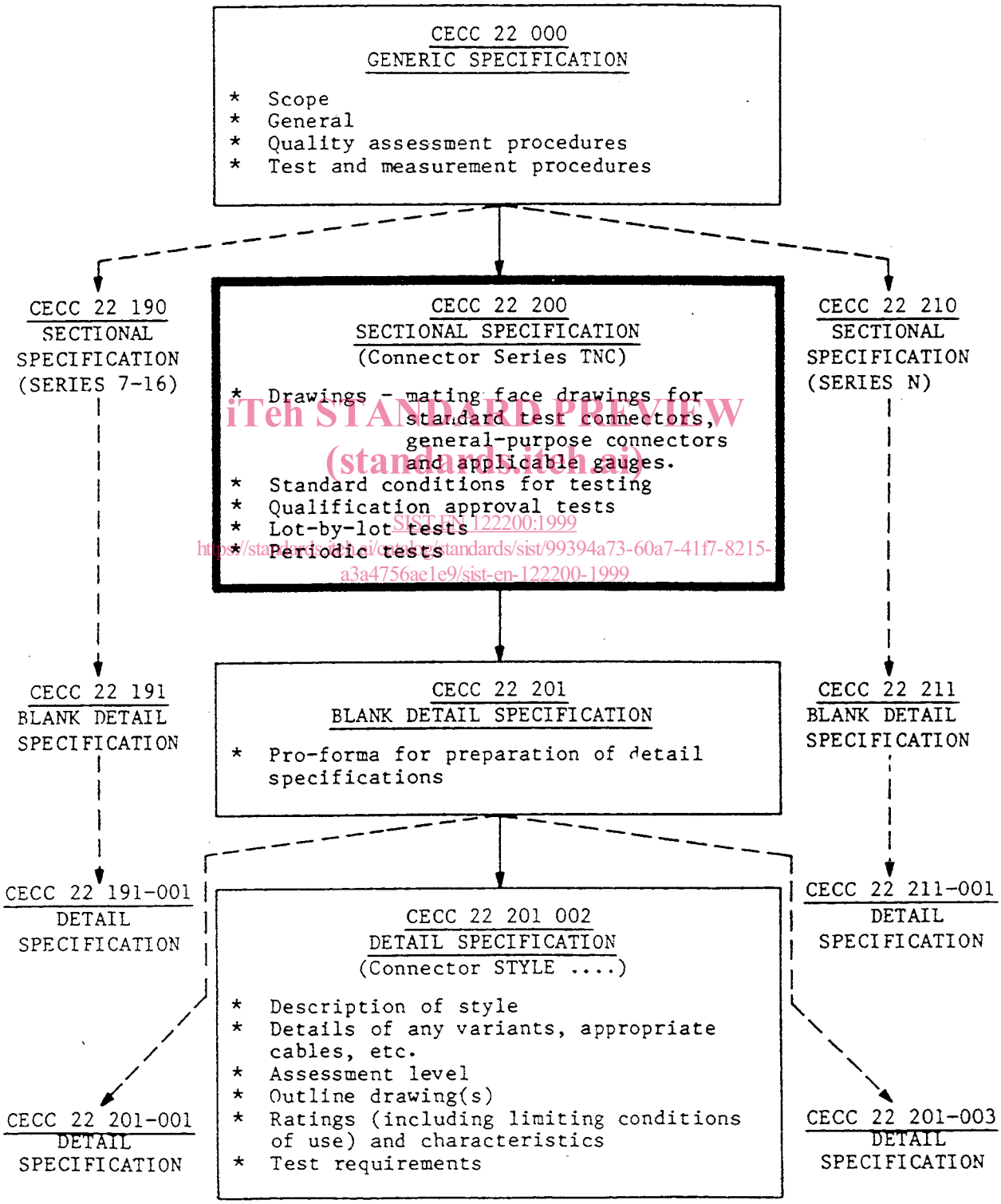
* National standard (excluding national implementation of IECQ specifications)

CECC SPECIFICATION SYSTEM
for R.F. Connectors



NOTE: A detail specification is a 'completed' blank detail specification

SECTION 1 - SCOPE

This sectional specification (SS) provides information and rules for the preparation of detail specifications (DS) for screw coupled coaxial connectors Series TNC.

It prescribes mating-face dimensions for general purpose connectors, dimensional details for standard test connectors, Grade 0, together with gauging information and the mandatory tests, selected from CECC 22 000, applicable to all DSs relating to Series TNC 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 H, M 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

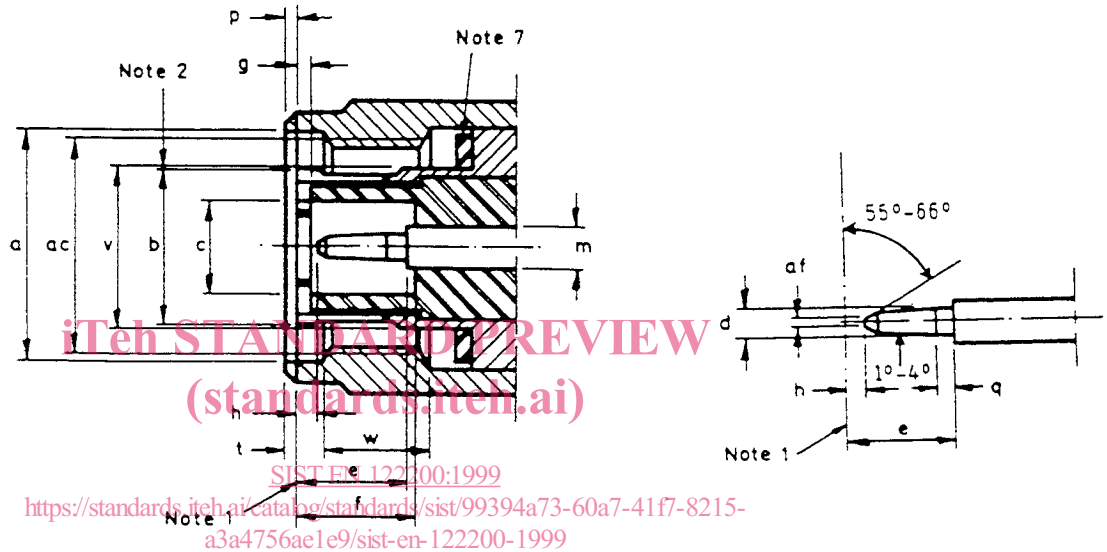


Fig. 1

Table 1

Ref.	mm		in		Note
	Min.	Max.	Min.	Max.	
a	11,18	-	0,440	-	10/ diameter
b	-	-	-	-	12/10/ diameter
c	4,83	-	0,190	-	10/ diameter
d	1,32	1,37	0,052	0,054	10/ diameter
e	5,33	5,84	0,210	0,230	
f	5,28	5,79	0,208	0,228	
g	0,15	-	0,006	-	
h	0,08	1,02	0,003	0,040	
m	2,06	2,21	0,081	0,087	diameter
p	-	1,98	-	0,078	9
q	1,98	-	0,078	-	
t	1,6	-	0,063	-	
v	-	8,18	-	0,322	10/ diameter
w	3,96	-	0,156	-	
ac	-	-	-	-	6
af	-	0,64	-	0,025	diameter

NOTES:

1. Mechanical and electrical reference plane.
2. Slotted and flared to meet electrical and mechanical requirements including gauge test according to 2.2.2.
6. Screw thread (diameter 11,1125 mm x 0,907 pitch) in accordance with ISO standard 263, 7/16-28 UNEF-2B.
7. Sealing gasket to meet required electrical and environmental performance.
9. With nut biased fully forward.
10. Diameters on MMC shall be on or be capable of taking up a common axis.

2.1.2 Socket

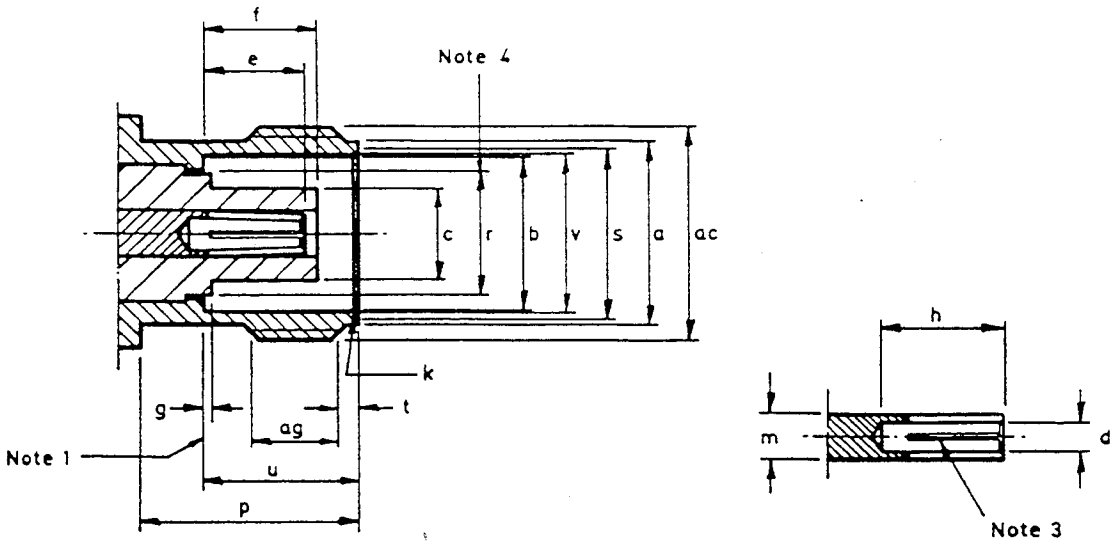


Fig. 2

Table 2

Ref.	mm		in		Note
	Min.	Max.	Min.	Max.	
a	9,60	9,68	0,378	0,381	10/diameter
b	8,10	8,15	0,319	0,321	10/diameter
c	–	4,72	–	0,186	10/diameter
d	–	–	–	–	3/10/diameter
e	4,72	5,23	0,186	0,206	
f	4,78	5,28	0,188	0,208	
g	–	0,15	–	0,006	
h	4,95	–	0,195	–	
k	–	–	–	–	8
m	2,06	2,21	0,081	0,087	10/diameter
p	10,52	–	0,414	–	
r	–	6,50	–	0,256	4/diameter
s	8,79	9,04	0,346	0,356	diameter
t	1,73	2,24	0,068	0,088	
u	8,31	8,51	0,327	0,335	
v	8,31	8,46	0,327	0,333	10/diameter
ac	–	–	–	–	6/10
ag	4,75	–	0,187	–	

NOTES:

1. Mechanical and electrical reference plane.

3. Slotted and closed to meet electrical and mechanical requirements including gauge test according to 2.2.1.

4. Applies only when dielectric extends beyond reference plane.

6. Screw thread (diameter 11,1125 mm x 0,907 pitch) in accordance with ISO standard 263, 7/16-28 UNEF-2A.

8. Chamfer or radius.

10. Diameters on MMC shall be on or be capable of taking up a common axis.

2.2 Gauges

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

2.2.1 Gauge for female centre contact

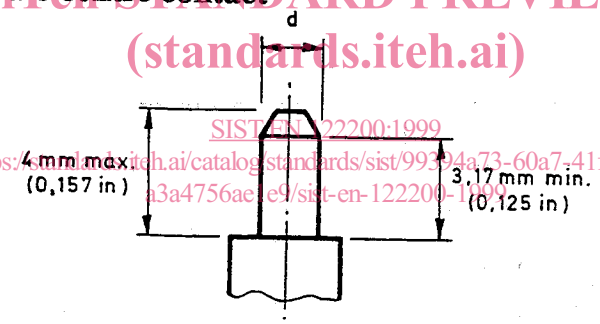


Fig. 3

Table 3

Gauge C maximum material, for sizing purposes					Gauge D minimum material, for measurement of gauge retention force Mass (weight) of gauge: (57 ± 1) g			
Ref.	mm		in		mm		in	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
d Ø	1,372	1,377	0,0540	0,0542	1,308	1,321	0,0515	0,0520
Material: Steel, polished surface roughness Ra = 0,4 µm (16 µin) max.								

Test requirements (see 4.5.1 of CECC 22 000)

Gauge C shall be inserted into the female centre contact for a minimum distance of 3,17 mm (0,125 in) once only.

This is a sizing operation.

After this, gauge D shall be inserted into the female centre contact. The contact shall support the mass of the gauge suspended in a vertical downward attitude.

NOTES: (for information only)

1. Gauge C is used for qualification approval tests only, see 4.5.1. The minimum diameter of Gauge C corresponds to the maximum diameter of a male contact pin.

2. Oversize gauging is to be used only as an effective process control test during manufacture. Sizing of female centre contacts in finished connectors should be restricted to Gauge C only.

2.2.2 Gauge for outer resilient contact of plug connector

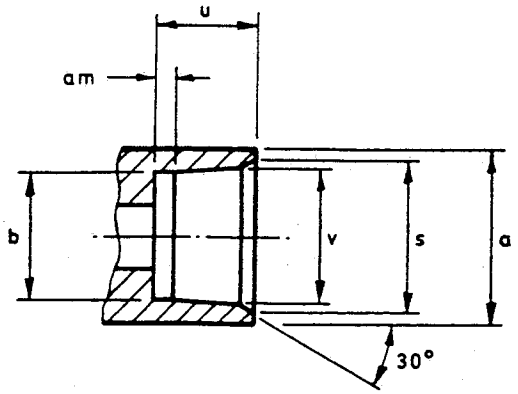


Fig. 4

Table 4

Ref.	Gauge A maximum material for sizing purposes				Gauge B minimum material for measurement of gauge retention force for outer conductor Mass (weight) of gauge: 225 ± 5 g			
	mm		in		mm		in	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
a Ø	9,63	9,68	0,379	0,381	9,63	9,68	0,379	0,381
b Ø	8,08	8,10	0,318	0,319	8,15	8,18	0,321	0,322
u	8,41	8,46	0,331	0,333	8,36	8,41	0,329	0,331
v Ø	8,31	8,36	0,327	0,329	8,41	8,46	0,331	0,333
s Ø	8,79 nom.		0,346 nom.		8,79 nom.		0,346 nom.	
am	4,00	-	0,157	-	4,00	-	0,157	-
Material: steel, polished surface roughness: Ra = 0,4 µm (16 µin) max.								