SLOVENSKI STANDARD
SIST EN 122190:1999

01-julij-1999

Sectional Specification: Radio frequency coaxial connectors - Series 7-16

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Ta slovenski standard je istoveten z: **EN 122190:1994**

ICS:

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

SIST EN 122190:1999 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 122190

January 1994

UDC

Supersedes CECC 22 190 Issue 2 : 1993

Descriptors: Quality, electronic components, connectors

English version

Sectional Specification: Radio frequency coaxial connectors Series 7-16

Spécification intermédiaire:
Connecteurs coaxiaux pour fréquence radioélectrique
Série 7-16

Rahmenspezifikation:
Hochfrequenz-Koaxial-Steckverbinder
Serie 7-16

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 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

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

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

Ref. No. EN 122190 : 1994 E

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 WG22, RF Connectors.

The text of the draft based on document CECC 22 190 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) 3470 it was approved by CECC as EN 122190 on 26 December 1993.

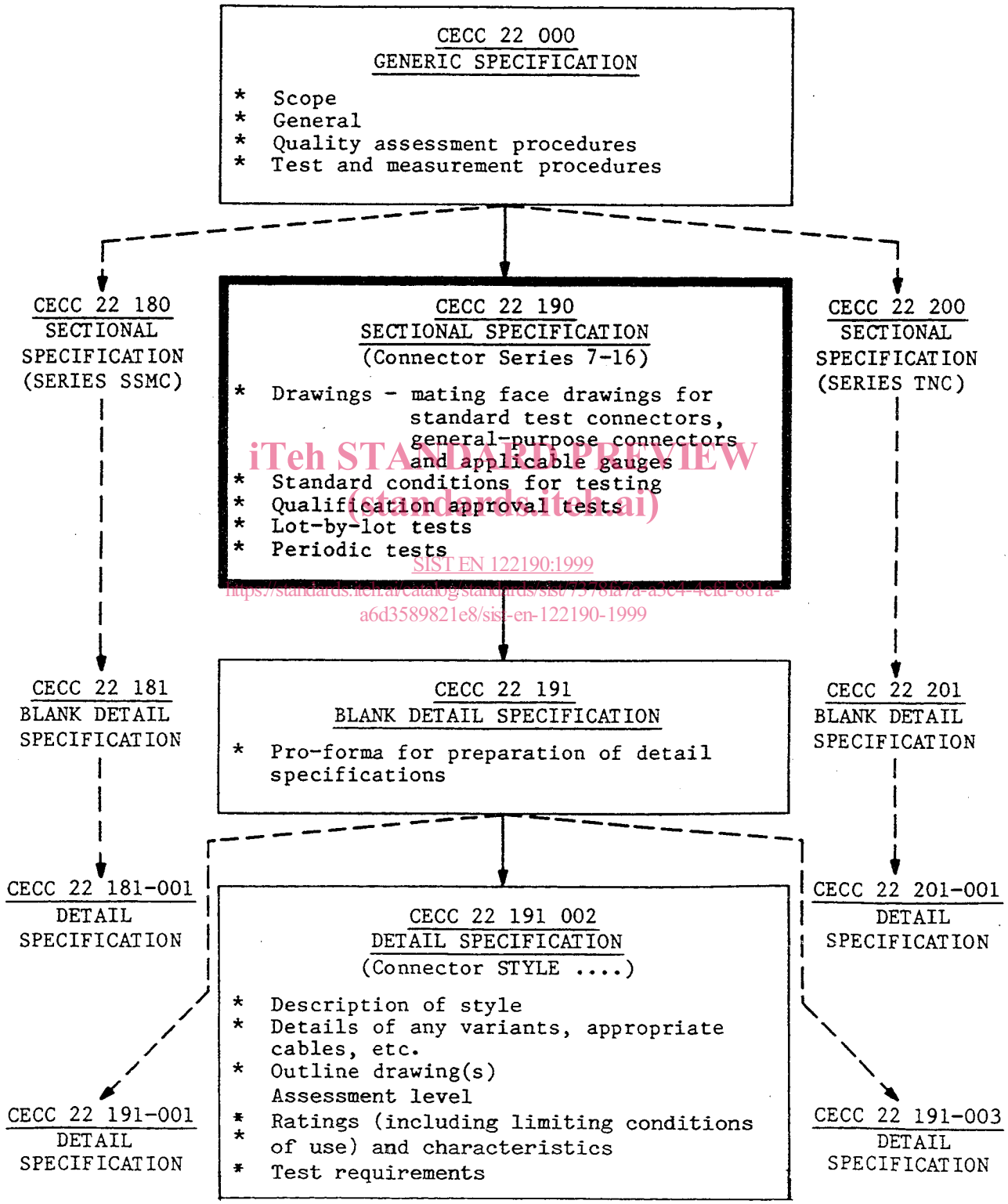
The following dates were fixed:

- 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

Contents

* 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 7-16.

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 7-16 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

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

2.1.1 Plug

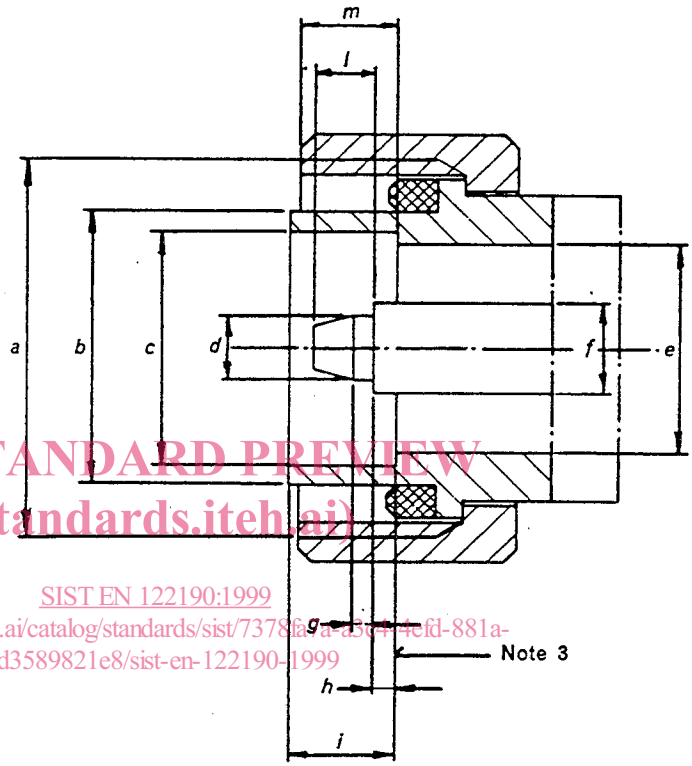


Fig. 1 Plug with male centre contact

Table 1

Ref.	mm		in		Note
	min.	max.	min.	max.	
a	M 29 x 1,5		M 29 x 1,5		2
b	20,6	21,4	0,811	0,843	
c	18,03	18,21	0,7098	0,7169	
d	4,96	5,04	0,1953	0,1984	
e	15,85	16,25	0,6240	0,6398	
f	7 nom.		0,276 nom.		1
g	1,4	1,6	0,0551	0,0630	
h	1,47	1,77	0,0579	0,0697	
i	7,00	8,00	0,276	0,315	
l	-	4,5	-	0,177	
m	7,00	9,00	0,276	0,354	

NOTES:

1. The tolerance on this dimension is determined by the tolerance of the characteristic impedance.

2. M 29 x 1,5 indicates metric screw thread with nominal diameter 29 mm (1,141 in) and pitch 1,5 mm (0,059 in).

3. Mechanical and electrical reference plane.

2.1.2 Socket

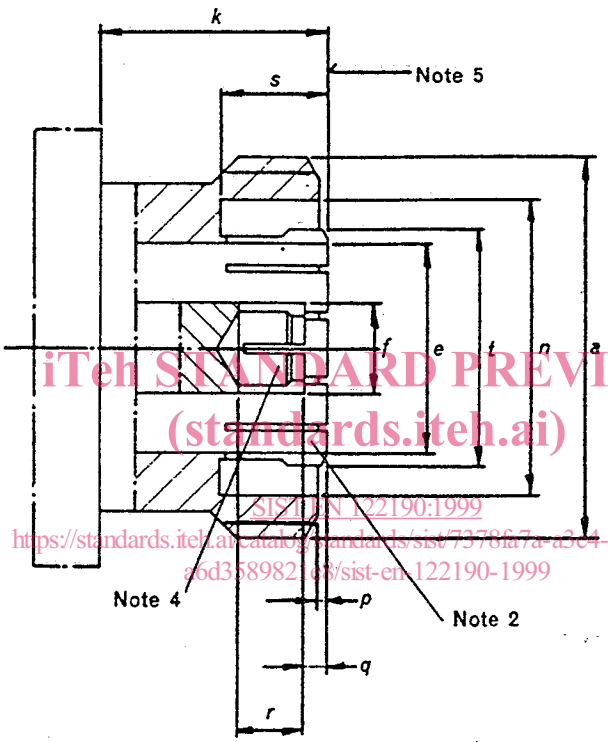


Fig. 2

Table 2

Ref.	mm		in		Note
	min.	max.	min.	max.	
a	M 29 x 1,5		M 29 x 1,5		3
e	15,85	16,25	0,6240	0,6398	
f	7 nom.		0,276 nom.		1
k	10	-	0,394	-	
n	22,1	22,9	0,870	0,902	
p	0,5	0,7	0,0197	0,0276	
q	1,77	2,07	0,0697	0,0815	
r	5	-	0,197	-	
s	8,1	-	0,319		
t	17,84	18,02	0,7024	0,7094	2

NOTES:

1. The tolerance on this dimension is determined by the tolerance of the characteristic impedance.

2. To be measured before slotting. After slotting to be bent outwards to 18,5 mm (0,728 in) max. The slotted sleeve has to meet the requirements of gauge retention force. For special requirements, non-slotted sleeve is permitted.

3. M 29 x 1,5 indicates metric screw thread with nominal diameter 29 mm (1,141 in) and pitch 1,5 mm (0,059 in).

4. Slot design optional. Contact to be closed to meet performance requirements.

5. Mechanical and electrical reference plane.

2.2 Gauges for general purpose connectors

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

2.2.1 Gauge for female centre contact

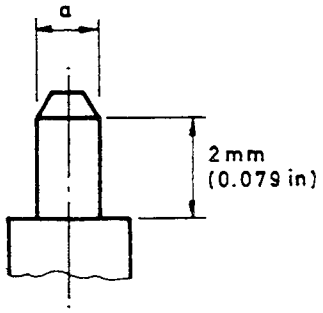


Fig. 3. Gauge pin for centre contact of socket connector (for dimension 'a' see Table 3).

Table 3

Gauge A maximum material, for sizing purposes					Gauge B minimum material, for measurement of gauge retention force Mass (weight) of gauge 600 ± 1 g			
Ref.	mm		in		mm		in	
	min.	max.	min.	max.	min.	max.	min.	max.
a Ø	5,09	5,10	0,2004	0,2008	4,95	4,96	0,1949	0,1953
Material: Steel, polished surface roughness Ra = 0,4 µm (16 µin) max.								

Test procedure (see 4.5.1 of CECC 22 000).

Gauge A shall be inserted three times into the female centre contact. This is a sizing operation.

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

Notes: (for information only)

Gauge A is used for qualification approval tests only, see 4.5.1.
The minimum diameter of Gauge A represents an oversize condition compared with the maximum diameter of a male contact pin.

2.2.2 Gauge for female outer contact

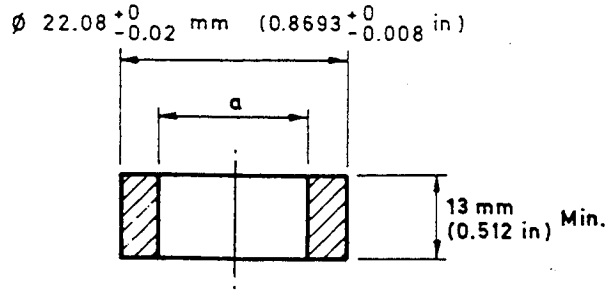


Fig. 4. Gauge ring for outer contact of socket connector (for dimension 'a' see Table 4).

Table 4

	Gauge A for non slotted contacts				Gauge B for slotted contacts			
Ref.	mm		inch		mm		inch	
	min.	max.	min.	max.	min.	max.	min.	max.
a	18,02	18,03	0,70826	0,79866	18,23	18,25	0,7177	0,7185
Material: Steel, polished surface roughness Ra = 0,4 µm (16 µin) max.								

Test procedures

1. For non-slotted contacts

Gauge A shall be pushed over the outer contact for a minimum distance of 8 mm (0,315 in). The force required shall not exceed 40 N.

2. For slotted contacts

Gauge B shall be placed over the outer contact. When the gauge is pushed to engage the outer contact over a distance of 3 mm (0,12 in) max. it shall uniformly engage the outer contact.

The retention force of the gauge shall be 15 N min.

2.3 Dimensions - Standard test connectors (Grade 0)
(see 4.4.1 of CECC 22 000).

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

2.3.1 Test plug

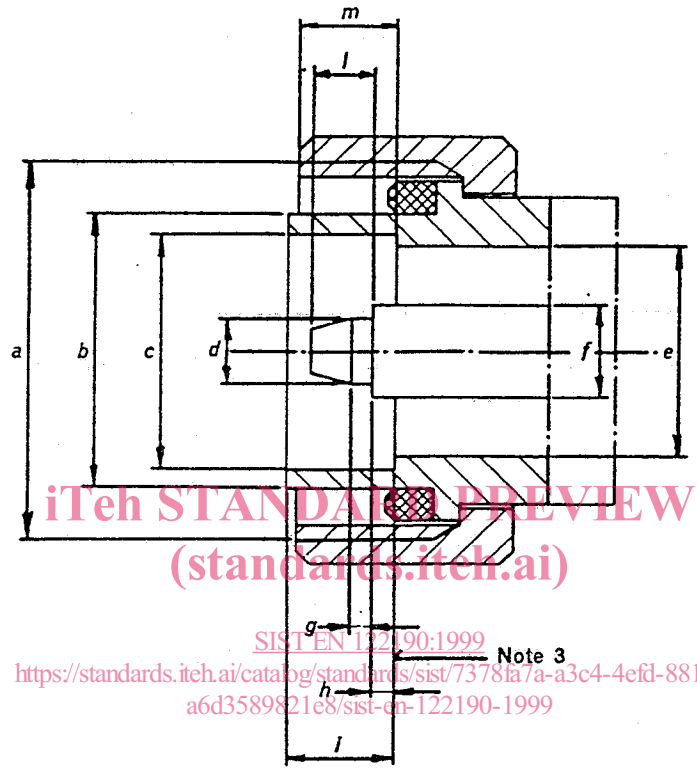


Fig. 5 Plug with male centre contact

Table 5

Ref.	mm		in		Note
	min.	max.	min.	max.	
a	M 29 x 1,5		M 29 x 1,5		2
b	20,6	21,4	0,811	0,843	
c	18,03	18,21	0,7098	0,7169	
d	4,99	5,00	0,1965	0,1968	
e	16,05	16,07	0,6319	0,6327	
f	6,971	6,981	0,2744	0,2748	1
g	1,4	1,6	0,0551	0,0630	
h	1,73	1,75	0,0681	0,0689	
i	7,00	8,00	0,276	0,315	
l	-	4,5	-	0,177	
m	7,00	9,00	0,276	0,354	

NOTES:

1. The tolerance on this dimension is determined by the tolerance of the characteristic impedance.