

Förderverein für Elektrotechnische Normung (FEN) e. V.
Cenelec Electronic Components Committee

CECC

Système Harmonisé d'Assurance de la Qualité
des Composants Electroniques

SPECIFICATION PARTICULIERE:
**CONNECTEURS COAXIAUX
POUR FREQUENCE
RADIOELECTRIQUE
Série SMC**

Harmonized System of Quality Assessment for
Electronic Components

DETAIL SPECIFICATION:
**RADIO FREQUENCY
COAXIAL CONNECTORS
Series SMC**

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

BAUARTSPEZIFIKATION:
**HOCHFREQUENZ-
KOAXIAL-STECKVERBINDER
Serie SMC**



1

Edition
Issue
Ausgabe

CECC 22 141-808

1988

Cet page bleue doit être insérée après la page de garde de la CECC 22 141-808 Edition 1 (1988)	This blue page shall be inserted after the title page of CECC 22 141-808 Issue 1 (1988)	Dieses blaue Blatt ist nach dem Titelblatt der CECC 22 141-808 Ausgabe 1 (1988) einzusetzen
AMENDEMENT 1 A LA CECC 22 141-808, (Edition 1)	AMENDMENT 1 TO CECC 22 141-808, (Issue 1)	ÄNDERUNG 1 ZU CECC 22 141-808, (Ausgabe 1)
SPECIFICATION PARTICULIERE:	DETAIL SPECIFICATION:	BAUARTSPEZIFIKATION:
CONNECTEURS COAXIAUX POUR FREQUENCE RADIOELECTRIQUE SERIE SMC	RADIO FREQUENCY COAXIAL CONNECTORS SERIES SMC	HOCHFREQUENZ-KOAXIAL-STECKVERBINDER SERIE SMC
La modification suivante doit être effectuée:	The following amendment shall be made:	Die folgende Änderung ist vorzunehmen:
Il est autorisé d'utiliser une rondelle frein à denture intérieure à la place d'une rondelle ondulée, dans la mesure où leur diamètre extérieur indiqué est conservé.	The use of an internal toothed lockwasher is permitted as an alternative to the crinkle washer indicated provided it does not exceed the outside diameter shown.	Der Gebrauch einer innen gezahnten Sicherungsscheibe ist als Alternative zur Federscheibe zulässig, wenn diese den angegebenen Außendurchmesser nicht überschreitet.
On distinguera dans les commandes et le stockage les variantes de la manière suivante: codes -01, -02, -03 etc. pour les rondelles ondulées, codes -11, -12, -13 etc. pour les rondelles frein à denture intérieure.	To allow discrimination in ordering and stocking, the Variant Codes -01, -02, -03 etc. will continue to be used for connectors fitted with crinkle washers. The corresponding connectors with toothed lockwashers will use Variant Codes -11, -12, -13 etc.	Zur Unterscheidung bei der Bestellung und der Lagerung wird für Steckverbinder, die mit Federscheiben eingesetzt werden, der Variantencode -01, -02, -03 etc. weiterverwendet. Für die entsprechenden Steckverbinder mit gezahnten Sicherungsscheiben lauten die Variantencodes -11, -12, -13 etc.
Enregistrer les modifications sur la feuille jaune 'Enregistrement de modifications'.	Enter this amendment on the yellow 'Record of Amendments' sheet.	Die Änderung ist in das gelbe Blatt der Änderungsliste einzutragen.
Cette proposition a été communiquée aux membres du GT22 sous la référence GT22(Secrétariat)655.	This proposal was circulated to WG22 members under WG22(Secretariat)655.	Dieser Vorschlag wurde mit dem Schreiben WG22(Sekretariat)655 den WG22-Mitgliedern zur Kenntnis gebracht.
CECC 22 141-808 Edition 1 Amendement 1 1991	CECC 22 141-808 Issue 1 Amendment 1 1991	CECC 22 141-808 Ausgabe 1 Änderung 1 1991

Information about the System may be obtained from:



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and
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D-6000 Frankfurt/Main 70
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Telex 4-12871 vdetz d
Telefax Int.+ (49) 69 6 30 82 83 (Gr. 2/3)
or from the National Authorized Institutions
of the participating countries listed
who can supply copies of:

- 1 The Internal Regulations of the FEN e.V.
- 2 CECC Specifications of the FEN and National Specifications for the System
- 3 CECC 00 200: Qualified Products List (QPL)
- 4 CECC 00 300: CECC Publications and their related national documents

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PREFACE

This detail specification (DS) was prepared by CECC Working Group 22: "RF Connectors".

It relates to Series SMC connectors covered by sectional specification CECC 22 140 and by blank detail specification CECC 22 141. These in turn are related to the generic specification CECC 22 000.

It is based, wherever possible, on the Publications of the International Electro-technical Commission, and in particular on IEC 169-9 (1978) Part 9: R.F. coaxial connectors with inner diameter of outer conductor 3 mm (0,12 in) with screw coupling - Characteristic impedance 50 ohms (Type SMC).

The text of this detail specification was circulated to the members of CECC WG 22 and was approved for publication under the accelerated procedure for the acceptance of detail specifications in accordance with Decision 10 of the minutes of the CECC CD in document(Secretariat)1838.

Document

WG22(Secretariat)376

Approval Date

January 1986

CECC 22 141-808 Issue 1

[1]	page 1 of 9	[2] CECC 22 141 - 808	
ELECTRONIC COMPONENT OF ASSESSED [3] QUALITY IN ACCORDANCE WITH GENERIC SPECIFICATION 22 000 SECTIONAL SPECIFICATION 22 140	[4]	Issue 1	

[5] DETAIL SPECIFICATION for

RADIO FREQUENCY COAXIAL CONNECTOR OF ASSESSED QUALITY:

SERIES

SMC

Style: Socket, single hole rear mounting (or free less
nut and washer), cable outlet, male centre contact

Special Features & Markings:

Method of cable/~~wire~~* attachment: centre conductor - solder/~~crimp~~*: outer conductor - ~~solder/clamp~~/crimp*

Mass: 4,0g (Max.)

*Delete as appropriate

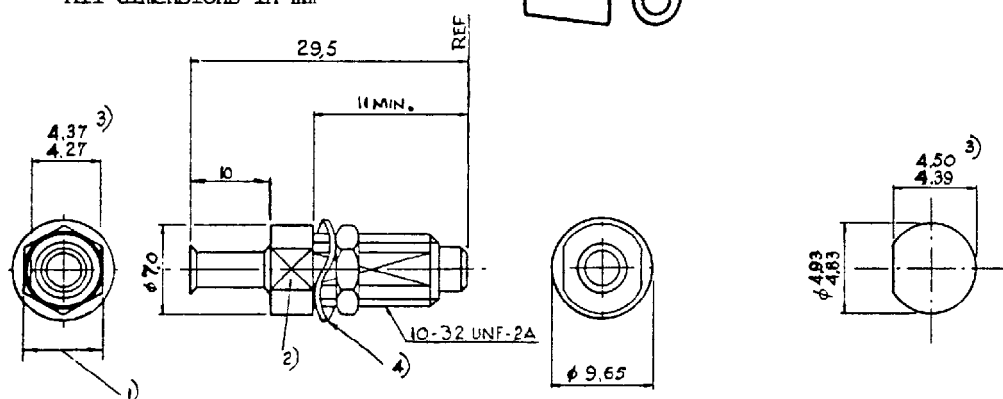
[6] Assessment level : H

Characteristic Impedance 50 Ω Climatic category 55/155/21

[7] Outline and maximum dimensions

All dimensions in mm

Panel piercing and mounting details



- NOTES : 1 Width across flats 6,35 (6 permissible)
2 Width across flats to suit standard wrench
3 to 'D' flat
4 Crinkle washer
5 Contours optional within dimensional envelope

Crimping details: Crimp
dies and cable stripping
dimensions to conform with
the instructions supplied
by the manufacturer

For mating interface dimensions and position of reference plane see CECC 22 140

Maximum panel thickness: ~~for front mounting~~ mm, for rear mounting 2,40.... mm

The outline dimensions meet the requirements of

[8] Variants

Variant No.		Description of Variant	Relevant Cables			
Body Shell Finish		Max. dia. over dielectric	IEC 96	MIL-C-17 RG	GB URM	FR NF
Au	Non- tarnish					
Plating						
-01	-03	0,94	50-1-1,1-2,1-3	178B/U,404/U	110	KX21
-02	-04	1,60	50-2-1,2-2,2-3	174A/U,316/U	95,109	KX3A
			2-4,2-5,2-6		116	KX22A
.....						
.....						

Information about manufacturers who have components qualified to this detail specification is
available in the current CECC 00 200: Qualified Products List

[9] PERFORMANCE (including limiting conditions of use)

RATINGS AND CHARACTERISTICS		CECC 22 140 CLAUSE	VALUE	REMARKS
ELECTRICAL				
	Variant No./ Designation			Measurement freq. range
Reflection factor	-01...to...-04	4.4.1	... < 0,1..... ... < 0,15.... ... < 0,25....	 < 1 GHz..... < 3 GHz..... < 6 GHz.....
Centre contact resistance		4.4.2	< 5.... mΩ < ...15.... mΩ	Initial After conditioning
Outer conductor continuity		4.4.3	< ...2,5... mΩ < ...7,5... mΩ	Initial After conditioning
Insulation resistance		4.4.4	> 1.... GΩ > ...500... MΩ	Initial After conditioning
+ Proof voltage at sea level	-01.....-03 -02.....-04	4.4.5	0,5... kV 0,75.. kV	86 to 106 kPa
+ Proof voltage at 20 km altitude	-01.....-03 -02.....-04	4.6.5	100.... V 150.....	4,4 kPa

+ Voltage values are r.m.s. values of a.c. at 50 to 60 Hz unless otherwise stated.

RATINGS AND CHARACTERISTICS		CECC 22 140 CLAUSE	VALUE	REMARKS
ELECTRICAL				
+ Working voltage at sea level	Variant No./ Designation			
	-01.....-03 -02.....-04		170.... V 335.... V	86 to 106 kPa
+ Working voltage at 20 km altitude	-01.....-03 -02.....-04		45.... V 85.... V	4,4 kPa
Screening effectiveness	-01...to...-04	4.4.8	$Z_t \leq \dots \text{NA} \dots \Omega$	Providing $\geq$ dB
ADDITIONAL ELECTRICAL CHARACTERISTICS				
MECHANICAL				
Contact captivation: - axial force - torque		4.5.2	4..... N NA..... Nm	CECC 22 000 method (or as specified)

+ Voltage values are r.m.s. values of a.c. at 50 to 60 Hz unless otherwise stated.

RATINGS AND CHARACTERISTICS		CECC 22 140 CLAUSE	VALUE	REMARKS
MECHANICAL				
Engagement and separation torque		4.5.4	..NA.. Nm max.	(to overcome friction of coupling nut)
Effectiveness of clamping device against cable pulling	Variant No./ Designation -01...to...-04	4.5.5 (1)	50..... N	
Effectiveness of clamping device against cable torsion	-01...to...-04	4.5.5 (2)	...0,039... Nm	
Tensile strength of coupling mechanism		4.5.6	NA..... N	
Coupling torque			 to .. Nm	
- normal			 Nm	
- proof				
Bending moment		4.5.9	0,8.... Nm	Relative to reference plane
ADDITIONAL MECHANICAL CHARACTERISTICS				