ICS 33.120.30 SLOVENSKÁ TECHNICKÁ NORMA August 2022

STN	**Vysokofrekvenčné konektory Časť 17: Rámcová špecifikácia VF koaxiálnych konektorov s vnútorným priemerom vonkajšieho vodiča 6,5 mm (0,256 in) so závitovým spojením Charakteristická impedancia 50 Ohm (Typ TNC)**	**STN EN IEC 61169-17** 35 3811

Radio-frequency connectors - Part 17: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with screw coupling - Characteristic impedance 50 ohms (Type TNC)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/22

Obsahuje: EN IEC 61169-17:2022, IEC 61169-17:2022

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61169-17

April 2022

ICS 33.120.30

English Version

Radio-frequency connectors - Part 17: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with screw coupling - Characteristic impedance 50 ohms (Type TNC) (IEC 61169-17:2022)

Connecteurs pour fréquences radioélectriques - Partie 17: Spécification intermédiaire relative aux connecteurs RF coaxiaux à couplage à vis avec conducteur extérieur présentant un diamètre intérieur de 6,5 mm (0,256 in) - Impédance caractéristique de 50 ohms (type TNC) (IEC 61169-17:2022)

Hochfrequenz-Steckverbinder - Hochfrequenz-Koaxial-Steckverbinder mit einem Innendurchmesser des Außenleiters von 6,5 mm (0,256 in) mit Schraubkupplung - Wellenwiderstand 50 Ohm (Typ TNC) (IEC 61169-17:2022)

This European Standard was approved by CENELEC on 2022-04-08. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 61169-17:2022 (E)

European foreword

The text of document 46F/603/FDIS, future edition 1 of IEC 61169-17, prepared by SC 46F "RF and microwave passive components" of IEC/TC 46 "Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61169-17:2022.

The following dates are fixed:

•	latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop) 2023-01-08
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow) 2025-04-08

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 61169-17:2022 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61169-26:2013 NOTE Harmonized as EN 61169-26:2013 (not modified)

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 61169-1	2013	Radio frequency connectors - Part 1: Generic specification - General requirements and measuring methods	EN 61169-1	2013
IEC 62153-4-7	-	Metallic cables and other passive components test methods - Part 4-7: Electromagnetic compatibility (EMC) -Test method for measuring of transfer impedance Z_T and screening attenuation a_S or coupling attenuation a_C of connectors and assemblies - Triaxial tube in tube method	EN IEC 62153-4-7	-
IEC 62037-3	-	Passive RF and microwave devices, intermodulation level measurement - Part 3: Measurement of passive intermodulation in coaxial connectors	EN IEC 62037-3	-

IEC 61169-17

Edition 1.0 2022-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Radio-frequency connectors – Part 17: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with screw coupling – Characteristic impedance 50 ohms (Type TNC)

Connecteurs pour fréquences radioélectriques – Partie 17: Spécification intermédiaire relative aux connecteurs RF coaxiaux à couplage à vis avec conducteur extérieur présentant un diamètre intérieur de 6,5 mm (0,256 in) – Impédance caractéristique de 50 ohms (type TNC)

IEC 61169-17:2022-03(en-fr)

IEC 61169-17

Edition 1.0 2022-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Radio-frequency connectors – Part 17: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with screw coupling – Characteristic impedance 50 ohms (Type TNC)

Connecteurs pour fréquences radioélectriques – Partie 17: Spécification intermédiaire relative aux connecteurs RF coaxiaux à couplage à vis avec conducteur extérieur présentant un diamètre intérieur de 6,5 mm (0,256 in) – Impédance caractéristique de 50 ohms (type TNC)

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 33.120.30

ISBN 978-2-8322-1083-1

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

RADIO-FREQUENCY CONNECTORS –

Part 17: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with screw coupling – Characteristic impedance 50 ohms (Type TNC)

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 61169-17 has been prepared by subcommittee 46F: RF and microwave passive components, of IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
46F/603/FDIS	46F/615/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts of the IEC 61169 series, under the general title: *Radio-frequency connectors*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

RADIO-FREQUENCY CONNECTORS –

Part 17: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with screw coupling – Characteristic impedance 50 ohms (Type TNC)

1 Scope

This part of IEC 61169, which is a sectional specification (SS), provides information and rules for the preparation of detail specifications (DS) for series TNC RF coaxial connectors with threaded coupling with a characteristic impedance of 50 Ω.

This document prescribes mating face dimensions for high performance connectors – grade 2, dimensional details of standard test connectors − grade 0, gauging information and tests selected from IEC 61169-1, applicable to all detail specifications relating to series TNC RF connectors.

This document indicates recommended performance characteristics to be considered when writing a detail specification and it covers test schedules and inspection requirements for assessment levels M and H.

The series TNC connectors which are used with all kinds of RF cables and microstrips in microwave transmission systems. The operating frequency is up to 11 GHz.

NOTE Metric dimension are original dimensions. All undimensioned pictorial configurations are for reference purpose only.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61169-1:2013, *Radio frequency connectors – Part 1: Generic specification – General requirements and measuring methods*

IEC 62153-4-7, *Metallic cables and other passive components test methods – Part 4-7: Electromagnetic compatibility (EMC) – Test method for measuring of transfer impedance Z_T and screening attenuation a_S or coupling attenuation a_C of connectors and assemblies –Triaxial tube in tube method*

IEC 62037-3, *Passive RF and microwave devices, intermodulation level measurement – Part 3: Measurement of passive intermodulation in coaxial connectors*