

## SLOVENSKI STANDARD SIST EN IEC 61169-63:2020

01-oktober-2020

Radiofrekvenčni konektorji - 63. del: Področna specifikacija - Radiofrekvenčni (RF) koaksialni konektorji z notranjim premerom zunanjega vodnika 6,5 mm (0,256 in) z bajonetnim zaklepom - Karakteristična impedanca 75 ohm (tip BNC75) (IEC 61169-63:2020)

Radio-frequency connectors - Part 63: Sectional specification - RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with bayonet lock - Characteristic impedance 75 ohms (type BNC75) (IEC 61169-63:2020)

## iTeh STANDARD PREVIEW

Hochfrequenz-Steckverbinder - Teil 63: Rahmenspezifikation – Koaxiale Hochfrequenzsteckverbinder mit 6,5 mm (0,256 in) Innendurchmesser des Außenleiters und Bajonettverschluss – Wellenwiderstand 75 Ohm (Typ BNC75) (IEC 61169-63:2020)

https://standards.iteh.ai/catalog/standards/sist/48ec18c2-de47-46da-9edc-

Connecteurs pour fréquences radioélectriques - Partie 63: Spécification intermédiaire - Connecteurs coaxiaux pour fréquences radioélectriques avec diamètre intérieur du conducteur extérieur de 6,5 mm (0,256 in) à verrouillage à baïonnette - Impédance caractéristique 75 ohms (type BNC75) (IEC 61169-63:2020)

Ta slovenski standard je istoveten z: EN IEC 61169-63:2020

ICS:

33.120.30 Radiofrekvenčni konektorji RF connectors

(RF)

SIST EN IEC 61169-63:2020 en

SIST EN IEC 61169-63:2020

# iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN IEC 61169-63:2020

**EUROPEAN STANDARD** NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

**EN IEC 61169-63** 

July 2020

ICS 33.120.30

## **English Version**

Radio-frequency connectors - Part 63: Sectional specification -RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with bayonet lock - Characteristic impedance 75 ohms (type BNC75) (IEC 61169-63:2020)

Connecteurs pour fréquences radioélectriques - Partie 63: Spécification intermédiaire - Connecteurs coaxiaux pour fréquences radioélectriques avec diamètre intérieur du conducteur extérieur de 6,5 mm (0,256 in) à verrouillage à baïonnette - Impédance caractéristique 75 ohms (type BNC75) (IEC 61169-63:2020)

Hochfrequenz-Steckverbinder - Teil 63: Rahmenspezifikation - Koaxiale Hochfrequenzsteckverbinder mit 6,5 mm (0,256 in) Innendurchmesser des Außenleiters und Bajonettverschluss - Wellenwiderstand 75 Ohm (Typ BNC75) (IEC 61169-63:2020)

## iTeh STANDARD PREVIEW

This European Standard was approved by CENELEC on 2020-06-30. 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 mational standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member atalog/standards/sist/48ec18c2-de47-46da-9edc-

7b63aa0569f0/sist-en-iec-61169-63-2020
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 61169-63:2020 (E)

## **European foreword**

The text of document 46F/501/FDIS, future edition 1 of IEC 61169-63, 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 61169-63:2020.

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
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-06-30

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.

## iTeh STANDARD PREVIEW

(Stendorsement hotice1)

### SIST EN IEC 61169-63:2020

The text of the International Standard IEC 61169-63:2020 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-1:2007	NOTE	Harmonized as EN 60068-2-1:2007 (not modified)
IEC 60068-2-2:2007	NOTE	Harmonized as EN 60068-2-2:2007 (not modified)
IEC 60068-2-11:1981	NOTE	Harmonized as EN 60068-2-11:1999 (not modified)
IEC 60068-2-13:1983	NOTE	Harmonized as EN 60068-2-13:1999 (not modified)
IEC 60068-2-14:2009	NOTE	Harmonized as EN 60068-2-14:2009 (not modified)
IEC 60068-2-20:2008	NOTE	Harmonized as EN 60068-2-20:2008 (not modified)
IEC 60068-2-30:2005	NOTE	Harmonized as EN 60068-2-30:2005 (not modified)

EN IEC 61169-63:2020 (E)

## **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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 61169-1	2013	Radio frequency connectors - Part 1: Generic   specification - General requirements and measuring methods are sitematical.	EN 61169-1	2013

SIST EN IEC 61169-63:2020

SIST EN IEC 61169-63:2020

# iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN IEC 61169-63:2020



## IEC 61169-63

Edition 1.0 2020-05

## INTERNATIONAL STANDARD

## NORME INTERNATIONALE

## Radio-frequency donnectors ANDARD PREVIEW

Part 63: Sectional specification – RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with bayonet lock – Characteristic impedance 75  $\Omega$  (type BNC75)<sub>IST EN IEC 61169-63:2020</sub>

https://standards.iteh.ai/catalog/standards/sist/48ec18c2-de47-46da-9edc-

Connecteurs pour fréquences radioélectriques -2020

Partie 63: Spécification intermédiaire – Connecteurs coaxiaux pour fréquences radioélectriques avec diamètre intérieur du conducteur extérieur de 6,5 mm (0,256 in) à verrouillage à baïonnette – Impédance caractéristique 75  $\Omega$  (type BNC75)

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 33.120.30 ISBN 978-2-8322-8221-2

Warning! Make sure that you obtained this publication from an authorized distributor.

Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

## CONTENTS

FC	REWO	RD	4
1	Scop	e	6
2	Norm	ative references	6
3	Term	s and definitions	6
4	IEC t	ype designation	7
5		ace dimensions – General purpose connectors	
	5.1	Pin connector	
	5.2	Socket connector	9
6	Mech	nanical gauges and standard test connectors	11
	6.1	Mechanical gauges	11
	6.1.1		
	6.1.2	Connectors with socket-centre contact	12
	6.1.3	Gauge for outer contacts, coupling mechanism and mating face dimensions	13
	6.2	Standard test connectors	14
	6.2.1	General	14
	6.2.2	Standard test connector with pin contact	14
	6.2.3	Standard test connector with socket contact ne dimensions	15
7			
8	Quali	ty assessment procedures and ards.iteh.ai)	17
	8.1	General	17
	8.2	Ratings and characteristics STEN IEC 61169-63:2020	17
	8.3	Test schedule and inspection requirements  1. Test schedule and insp	20
	8.3.1	Acceptance tests	20
	8.3.2		
	8.4	Procedures for quality conformance	
	8.4.1	Quality conformance inspection	
_	8.4.2		
9	Instru	uctions for preparation of detail specifications	22
	9.1	General	
	9.2	Identification of the component	
	9.3	Performance	
	9.4	Marking, ordering information and related matters	
	9.5	Selection of tests, test conditions and severities	
D:I	9.6	Blank detail specification pro-forma for type BNC connector	
DII	bilograp	hy	29
<b>-</b> :	1	Occurrent with min control control	7
	-	- Connector with pin-centre contact	
		- Details of bayonet lock	
	_	- Details of alternative coupling grooves	
Fi	gure 4 -	- Details of alternative coupling grooves	8
Fi	gure 5 -	- Details of pin-centre contact	8
Fi	gure 6 -	- Connector with socket-centre contact	10
Fi	gure 7 -	- Details of socket-centre contact	10
Fig	gure 8 -	- Gauge for outer contact of pin connector	11

Figure 9 – Gauge pin for socket-centre contact	12
Figure 10 – Dimensions of gauge for performance test	13
Figure 11 – Dimensions of connector	14
Figure 12 – Dimensions of centre contact	15
Figure 13 – Dimensions of connector	16
Figure 14 – Dimensions of centre contact	16
Table 1 – Dimensions for connector with pin-centre contact	9
Table 2 – Dimensions for connector with socket-centre contact	
Table 3 – Dimensions for gauges for outer contact of pin connector	
Table 4 – Dimensions for gauge pin for socket-centre contact	
Table 5 – Dimensions of gauge for performance test	14
Table 6 – Dimensions of centre contact	15
Table 7 – Dimensions for standard test connector	17
Table 8 – Preferred climatic categories (see IEC 60068-1)	18
Table 9 – Ratings and characteristics	18
Table 10 – Acceptance tests	21
Table 11 – Periodic tests	21
(standards.iteh.ai)	

SIST EN IEC 61169-63:2020

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### **RADIO-FREQUENCY CONNECTORS -**

# Part 63: Sectional specification – RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with bayonet lock – Characteristic impedance 75 $\Omega$ (type BNC75)

## **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.

  7b63aa0569f0/sist-en-iec-61169-63-2020
- 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.

International Standard IEC 61169-63 has been prepared by subcommittee 46F: RF and microwave passive components, of IEC technical committee 46: Cables wires, waveguides, RF connectors, RF microwave passive components and accessories.

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

FDIS	Report on voting
46F/501/FDIS	46F/506/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 61169-63:2020 © IEC 2020

- 5 -

A list of all parts of the IEC 61169 series, published 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 "http://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.

# iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN IEC 61169-63:2020 https://standards.iteh.ai/catalog/standards/sist/48ec18c2-de47-46da-9edc-

7b63aa0569f0/sist-en-iec-61169-63-2020

## – 6 –

### RADIO-FREQUENCY CONNECTORS -

# Part 63: Sectional specification – RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with bayonet lock – Characteristic impedance 75 Ω (type BNC75)

## 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 RF coaxial connectors which can preferably be used with RF cables 60096 IEC 50-3 of IEC 60096-2. These connector patterns are for low power, quick connect/disconnect applications using a bayonet type coupling mechanism and are commonly known as type "BNC" with characteristic impedance 75  $\Omega$ .

It describes the interface dimensions for general purpose connectors, dimensional details for standard test connectors together with gauging information and the mandatory tests selected from IEC 61169-1, applicable to all DS relating to type BNC connectors with characteristic impedance 75  $\Omega$ .

This document indicates the recommended performance characteristics to be considered when writing a DS and covers test schedules and inspection requirements.

NOTE The original dimensions are in inches. All undimensioned pictorial configurations are for reference purposes only.

### SIST EN IEC 61169-63:2020

## 2 Normative references rds. iteh.ai/catalog/standards/sist/48ec18c2-de47-46da-9edc-7b63aa0569f0/sist-en-iec-61169-63-2020

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 60068-1, Environmental testing – Part 1: General and guidance

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

## 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp