

## SLOVENSKI STANDARD SIST EN IEC 61169-67:2022

01-junij-2022

Radiofrekvenčni konektorji - 67. del: Področna specifikacija za navojne triaksialne priključke serije TRL (IEC 61169-67:2022)

Radio frequency connectors - Part 67: Sectional specification for series TRL threaded triaxial connectors (IEC 61169-67:2022)

Hochfrequenz-Steckverbinder - Teil 67: Teilspezifikation für triaxiale Steckverbinder mit Gewinde der Serie TRL (IEC 61169-67:2022)

Connecteurs pour fréquences radioélectriques - Partie 67: Spécification intermédiaire relative aux connecteurs triaxiaux filetés de série TRL (IEC 61/169-67:2022)

Ta slovenski standard je istoveten z: ai/catEN IEC 61169-67:2022 4c-

33dc-47ca-b3c5-e69599601818/sist-en-iec-61169-67-

2()2.2.

ICS:

33.120.30 Radiofrekvenční konektorji RF connectors

(RF)

SIST EN IEC 61169-67:2022 en

SIST EN IEC 61169-67:2022

## iTeh STANDARD **PREVIEW** (standards.iteh.ai)

<u>SIST EN IEC 61169-67:2022</u> https://standards.iteh.ai/catalog/standards/sist/637c7f4c-33dc-47ca-b3c5-e69599601818/sist-en-iec-61169-67-2022

**EUROPEAN STANDARD** 

**EN IEC 61169-67** 

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

April 2022

ICS 33.120.30

## **English Version**

# Radio frequency connectors - Part 67: Sectional specification for series TRL threaded triaxial connectors (IEC 61169-67:2022)

Connecteurs pour fréquences radioélectriques - Partie 67: Spécification intermédiaire relative aux connecteurs triaxiaux filetés de série TRL (IEC 61169-67:2022) Hochfrequenz-Steckverbinder - Teil 67: Rahmenspezifikation für triaxiale Steckverbinder mit Gewinde der Serie TRL (IEC 61169-67:2022)

This European Standard was approved by CENELEC on 2022-03-25. 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 members

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, Iteland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Bortugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom. -47ca-b3c5-e69599601818/sist-en-iec-61169-67-

2022



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 61169-67:2022 (E)

## **European foreword**

The text of document 46F/599/FDIS, future edition 1 of IEC 61169-67, 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 61169-67:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-12-25 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with (dow) 2025-03-25 the document have to be withdrawn

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.

## iTeh STANDARD

## **Endorsement notice**

The text of the International Standard IEC 61169-67:2022 was approved by CENELEC as a European Standard without any modification.

SIST EN IEC 61169-67:2022

https://standards.iteh.ai/catalog/standards/sist/637c7f4c-33dc-47ca-b3c5-e69599601818/sist-en-iec-61169-67-

2022

EN IEC 61169-67:2022 (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 61169-1	2013	Radio frequency connectors - Part 1: Generic specification - General requirements and measuring methods	EN 61169-1	2013
IEC 61169-1-5	-	Radio frequency connectors - Part 1-5: Electrical test methods - Rise time degradation (standards.iteh.ai)	EN IEC 61169-1-5	-

SIST EN IEC 61169-67:2022

https://standards.iteh.ai/catalog/standards/sist/637c7f4c-33dc-47ca-b3c5-e69599601818/sist-en-iec-61169-67-2022

SIST EN IEC 61169-67:2022

## iTeh STANDARD **PREVIEW** (standards.iteh.ai)

<u>SIST EN IEC 61169-67:2022</u> https://standards.iteh.ai/catalog/standards/sist/637c7f4c-33dc-47ca-b3c5-e69599601818/sist-en-iec-61169-67-2022



## IEC 61169-67

Edition 1.0 2022-02

## INTERNATIONAL **STANDARD**

## **NORME** INTERNATIONALE

## iTeh STANDARD

Radio-frequency connectors PRFVIEW
Part 67: Sectional specification for series TRL threaded triaxial connectors

(standards.iteh.ai)
Connecteurs pour fréquences radioélectriques –

Partie 67: Spécification intermédiaire relative aux connecteurs triaxiaux filetés

de série TRL

https://standards.iteh.ai/catalog/standards/sist/637c7f4c-33dc-47ca-b3c5-e69599601818/sist-en-iec-61169-67-

2022

**INTERNATIONAL ELECTROTECHNICAL** COMMISSION

COMMISSION **ELECTROTECHNIQUE INTERNATIONALE** 

ICS 33.120.30 ISBN 978-2-8322-1079-7

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

F	DREWO	RD	3			
1	Scop	e	5			
2	Norm	ative references	5			
3	Term	s and definitions	5			
4	Matin	g face and gauge information	6			
	4.1	Mating face dimensions	6			
	4.1.1	Plug connector				
	4.1.2	Receptacle connector	7			
	4.1.3	Coaxial pin contact	7			
	4.1.4	Coaxial socket contact	8			
	4.2	Gauges for resilient contact	9			
	4.2.1	Gauge for socket centre contact	9			
	4.2.2	Gauge for socket intermediate contact	9			
5	Quali	ty assessment procedure	10			
	5.1	General				
	5.2	Ratings and characteristics	10			
	5.3	Test schedule and inspection requirementsAR	13			
	5.3.1	Acceptance tests	13			
	5.3.2					
	5.3.3	Procedures	15			
6	Instru	ctions for preparation of detail specifications (DS). 2.1.	15			
	6.1	General				
	6.2	Identification of the component IEC.61.169-67:2022				
	6.3	Performances://standards.iteh.ai/catalog/standards/sist/637c7f4c-				
	6.4	Marking, ordering information and related matters iec-61169-67-				
	6.5	Selection of tests, test conditions and severities				
	6.6	Blank detail specification pro-forma for TRL connectors	17			
Fi	gure 1 -	· Plug connector	6			
	Figure 2 – Receptacle connector					
	_	· Coaxial pin contact				
	Figure 4 – Coaxial socket contact					
	Figure 5 – Gauge for socket centre contact					
Fi	gure 6 –	Gauge for socket intermediate contact	10			
Ta	ıble 1 –	Dimensions of plug connector	6			
Ta	ıble 2 –	Dimensions of receptacle connector	7			
Ta	ıble 3 –	Dimensions of coaxial pin contact	8			
Ta	ble 4 –	Dimensions of coaxial socket contact	8			
Ta	Table 5 – Dimensions of gauge for socket centre contact9					
	Table 6 – Dimensions of gauge for socket intermediate contact					
	Table 7 – Ratings and characteristics1					
	Table 8 – Acceptance tests					
	·					
Ιa	ible 9 –	Periodic tests	14			

### INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

## Part 67: Sectional specification for series TRL threaded triaxial connectors

### **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 o/standards/sist/637c7f4c-
- 6) All users should ensure that they have the latest edition of this publication 61169-67-
- 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 61169-67 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/599/FDIS	46F/609/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.

IEC 61169-67:2022 © IEC 2022

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 <a href="https://www.iec.ch/members\_experts/refdocs">www.iec.ch/members\_experts/refdocs</a>. The main document types developed by IEC are described in greater detail at <a href="https://www.iec.ch/standardsdev/publications">www.iec.ch/standardsdev/publications</a>.

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.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN IEC 61169-67:2022

https://standards.iteh.ai/catalog/standards/sist/637c7f4c-33dc-47ca-b3c5-e69599601818/sist-en-iec-61169-67-2022

– 4 –

IEC 61169-67:2022 © IEC 2022

- 5 -

### RADIO-FREQUENCY CONNECTORS -

## Part 67: Sectional specification for series TRL threaded triaxial connectors

### 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 TRL threaded triaxial connectors. Series TRL threaded triaxial connectors with high reliability, small size, good salt characteristics can be connected with symmetrically twisted pair cables or triaxial cables. It has been used in 1553B data bus systems or other communication systems for digital signal transmission.

It specifies mating face dimensions for series TRL threaded triaxial connectors, gauging information and tests selected from IEC 61169-1, applicable to all detail specifications relating to series TRL threaded triaxial connectors.

This specification 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.

NOTE Metric dimensions are original dimensions. All undimensioned pictorial configurations are for reference purpose only. (standards.iteh.ai)

### **Normative references**

SIST EN IEC 61169-67:2022

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 61169-1-5, Radio frequency connectors – Part 1-5: Electrical test methods – Rise time degradation

### Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61169-1 and the following apply.

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

### 3.1

### coaxial pin contact

connecting part with a coaxial structure, the outer conductor of which is a pin and the inner conductor is a socket