BS EN IEC 61169-74:2025

BSI Standards Publication

Radio-frequency connectors

Part 74: Sectional specification for HN series RF coaxial connectors with screw coupling — Characteristic impedance 50 Ω

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National foreword

This British Standard is the UK implementation of EN IEC 61169-74:2025. It is identical to IEC 61169-74:2025.

The UK participation in its preparation was entrusted to Technical Committee EPL/46, Cables, wires and waveguides, radio frequency connectors and accessories for communication and signalling.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

Radio-frequency connectors - Part 74: Sectional specification for HN series RF coaxial connectors with screw coupling - Characteristic impedance 50 Ω (IEC 61169-74:2025)

Connecteurs pour fréquences radioélectriques - Partie 74: Spécification intermédiaire pour connecteurs RF coaxiaux de série HN avec couplage à vis - Impédance caractéristique 50 Ω (IEC 61169-74:2025)

Hochfrequenz-Steckverbinder - Teil 74: Rahmenspezifikation für koaxiale HF-Steckverbinder der Serie HN mit Schraubkupplung - Wellenwiderstand 50 Ohm (IEC 61169-74:2025)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
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European foreword

The text of document 46F/703/CDV, future edition 1 of IEC 61169-74, 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 61169-74:2025.

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) 2026-12-31
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-12-31

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

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CONTENTS

FOREWORD....3
1 Scope....5
2 Normative references....5
3 Terms and definitions....5
4 Mating face and gauge information....6
4.1 General connectors – Grade 2....6
4.1.1 Connector with pin centre contact....6
4.1.2 Connector with socket centre contact....7
4.2 Gauges....9
4.2.1 Gauge pin for connector with socket centre contact....9
4.2.2 Gauge for outer contact of connector with pin centre contact....10
4.3 Dimensions – Standard test connectors – Grade 0....11
4.3.1 Connectors with pin centre contact....11
4.3.2 Connector with socket centre contact....12
5 Quality assessment procedures....14
5.1 General....14
5.2 Ratings and characteristics....14
5.3 Test schedule and inspection requirements....17
5.3.1 Acceptance tests....17
5.3.2 Periodic tests....18
5.3.3 Procedures for the quality conformance....19
6 Instructions for preparation of Detail Specifications....20
6.1 General....20
6.2 Identification of the component....20
6.3 Performance....20
6.4 Marking, ordering information and related matters....20
6.5 Selection of tests, test conditions and severities....20
6.6 Blank Detail Specification pro forma for HN connectors....21

Figure 1 – Connector with pin centre contact....6
Figure 2 – Connector with socket centre contact....8
Figure 3 – Gauge pin for socket centre contact....9
Figure 4 – Gauge for outer contact of connector with pin centre contact....10
Figure 5 – Connector with pin centre contact....11
Figure 6 – Connector with socket in centre contact....13

Table 1 – Dimensions of connector with pin centre contact....7
Table 2 – Dimensions of connector with socket centre contact....8
Table 3 – Dimensions of gauge pin for connector with socket centre contact....9
Table 4 – Dimensions of gauge for outer contact of connector with pin centre contact....10
Table 5 – Dimensions of connector with pin centre contact....12
Table 6 – Dimensions of connector with socket centre contact....13

Documents
Document Sharing Hub

Full document details: BS EN IEC 61169-74:2025

Table 7 – Preferred climatic categories 14
Table 8 – Ratings and characteristics 14
Table 9 – Acceptance tests 17
Table 10 – Periodic tests 18

Documents
Document Sharing Hub
Full document details: BS EN IEC 61169-74:2025

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Radio-frequency connectors - Part 74: Sectional specification for HN series RF coaxial connectors with screw coupling - Characteristic impedance 50 Ω

FOREWORD

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IEC 61169-74 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/703/CDV	46F/719/RVC

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.

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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/publications.

A list of all parts in 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,
– withdrawn, or
– revised.

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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 HN RF coaxial connectors with screw 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 HN RF connectors.

This document indicates recommended performance characteristics which are considered when writing a Detail Specification and it covers test schedules and inspection requirements for assessment levels M and H.

The series HN connectors are intended to be used in microwave transmission systems and can be connected with all kinds of RF cables and microstrips. The operating frequency is up to 6 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 62037-3, *Passive RF and microwave devices, intermodulation level measurement - Part 3: Measurement of passive intermodulation in coaxial connectors*

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*

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

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