IEC 61169-61

Edition 1.0 2020-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Radio-frequency connectors – Part 61: Sectional specification for RF coaxial connectors with 9,5 mm inner diameter of outer conductor, quick lock coupling, series Q4.1-9.5

Connecteurs pour fréquences radioélectriques – Partie 61: Spécification intermédiaire relative aux connecteurs coaxiaux pour fréquences radioélectriques avec diamètre intérieur du conducteur extérieur de 9,5 mm, verrouillage rapide, série Q4.1-9.5

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 33.120.30

ISBN 978-2-8322-8238-0

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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International Standard IEC 61169-61 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.

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

FDIS	Report on voting
46F/492/FDIS	46F/494/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.

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 "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- withdrawn,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.

RADIO-FREQUENCY CONNECTORS –

Part 61: Sectional specification for RF coaxial connectors with 9,5 mm inner diameter of outer conductor, quick lock coupling, series Q4.1-9.5

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 coaxial connectors with a 9,5 mm inner diameter of the outer conductor and quick lock coupling mechanism, characteristic impedance 50 Ω and an operating frequency of up to 8,5 GHz. Series Q4.1-9.5 connectors with socket centre contact are compatible with threaded 4,1-9,5 series (specified in IEC 61169-11) connectors with pin centre contact. This type of connectors are starting to be applied in telecommunication systems due to their special features which are suitable for outdoor harsh requirements, such as quick and reliable coupling, compatible with threaded connector and being entirely waterproof.

This document specifies mating face dimensions for general purpose connectors – grade 2, dimensional details of standard test connectors – grade 0, gauge information and test requirements, product ratings and characteristics, tests selected from IEC 61169-1, applicable to all detail specifications relating to Q4.1-9.5 series RF coaxial connectors.

Annex A specifies the outline dimensions of connectors and protective sleeves, which could bring interchangeability between pairs of connectors and protective sleeves from different manufacturers.

This document indicates the recommended performance characteristics to be considered when writing a detail specification and 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 purposes 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 60529, *Degrees of protection provided by enclosures (IP Code)*

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

IEC 62037-3:2012, *Passive RF and microwave devices, intermodulation level measurement – Part 3: Measurement of passive intermodulation in coaxial connectors*