

Radio-frequency connectors —

Part 39: Sectional specification for CQM series quick lock RF connectors

ICS 33.120.30

National foreword

This Draft for Development is the UK implementation of IEC/PAS 61169-39:2008.

This publication is not to be regarded as a British Standard.

It is being issued in the Draft for Development series of publications and is of a provisional nature. It should be applied on this provisional basis, so that information and experience of its practical application can be obtained.

A PAS is a Technical Specification not fulfilling the requirements for a standard, but made available to the public and established in an organization operating under a given procedure.

A review of this Draft for Development will be carried out not later than three years after its publication.

Notification of the start of the review period, with a request for the submission of comments from users of this Draft for Development, will be made in an announcement in the appropriate issue of *Update Standards*. According to the replies received, the responsible BSI Committee will judge whether the validity of the PAS should be extended for a further three years or what other action should be taken and pass their comments on to the relevant international committee.

Observations which it is felt should receive attention before the official call for comments will be welcomed. These should be sent to the Secretary of the responsible BSI Technical Committee at British Standards House, 389 Chiswick High Road, London W4 4AL.

The UK participation in its preparation was entrusted by Technical Committee EPL/46, Cables, wires and waveguides, radio frequency connectors and accessories for communication and signalling, to Subcommittee EPL/46/2, Radio frequency connectors and waveguides.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Date	Comments

PUBLICLY AVAILABLE SPECIFICATION

PRE-STANDARD

**Radio-frequency connectors –
Part 39: Sectional specification for CQM series quick lock RF connectors**

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RADIO-FREQUENCY CONNECTORS –

Part 39: Sectional specification for CQM series quick lock RF connectors

1 Scope

CQM Series quick lock connectors with characteristic impedance 50 Ω are used for high power microwave applications, connecting with RF cables or microstrips. The operating frequency limit is at least 4 GHz.

This PAS is a sectional specification providing information and rules for the preparation of detail specifications for CQM series quick lock RF connectors together with the pro forma blank detail specification.

It also prescribes mating interface dimensions for general purpose connectors, dimensional details of standard test connectors grade 0, gauging information and tests selected from QC 220000 (IEC 61169-1), applicable to all detail specifications relating to CQM series connectors.

This specification indicates the 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.

2 Normative references

The following referenced documents are indispensable for the application 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 61169-1:1992, *Radio-frequency connectors – Part 1: Generic specification – General requirements and measuring methods*¹⁾

Amendment 1 (1996)

Amendment 2 (1997)

3 Mating interface and gauge information

All undimensioned pictorial configurations are for reference purposes only.

¹⁾ A consolidated edition 1.2 (1998) exists, that comprises IEC 61169-1 (1992), Amendment 1 and Amendment 2.

3.1 Dimensions – General connectors – Grade 2

3.1.1 Connector with pin – centre contact

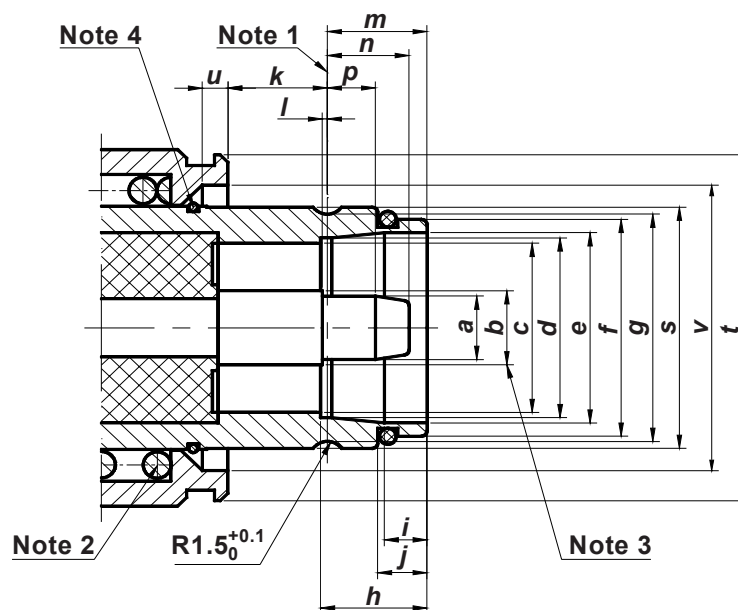


Figure 1 – Connector with pin-centre contact
(for dimensions, see Table 1)

Table 1 – Dimensions of connector with pin-centre contact

Ref.	mm		Notes
<i>a</i>	5,96	6,04	Diameter
<i>b</i>	7 (nominal)		Diameter
<i>c</i>	15,85	16,25	Diameter
<i>d</i>	16,90	17,10	Diameter
<i>e</i>	18,00	18,20	Diameter
<i>f</i>	21,00	21,20	Diameter
<i>g</i>	21,90	22,10	Diameter
<i>h</i>	8,90	9,20	
<i>i</i>	3,70	3,90	
<i>j</i>	4,30	4,50	
<i>k</i>	–	9,80	
<i>l</i>	0,30	0,50	
<i>m</i>	8,80	9,00	
<i>n</i>	7,20	7,40	
<i>s</i>	23,20	23,30	Diameter
<i>t</i>	35,00	35,20	Diameter
<i>p</i>	4,20	4,40	
<i>u</i>	2,10	2,30	
<i>v</i>	26,9	27,2	Diameter

NOTE 1 Mechanical reference plane.
 NOTE 2 The spring force is 50 N to 60 N max.
 NOTE 3 Tolerances of dimensions are to meet the requirements of characteristic impedances.
 NOTE 4 Ring.

3.1.2 Connectors with socket-centre contact

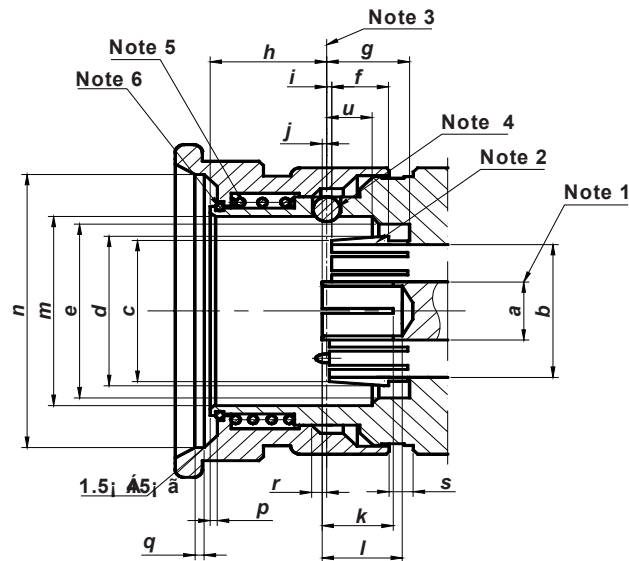


Figure 2 – Connector with socket-centre contact
(for dimensions, see Table 2)

Table 2 – Dimensions of connector with socket-centre contact

Ref.	mm		Notes
	min	max	
<i>a</i>	7 (nominal)		1
<i>b</i>	15,85	16,25	
<i>c</i>	16,70	16,90	
<i>d</i>	17,80	18,00	
<i>e</i>	22,10	22,30	
<i>f</i>	6,30	6,50	
<i>g</i>	9,10	9,30	
<i>h</i>	12,75	12,85	
<i>i</i>	0,20	0,40	
<i>j</i>	–	0,20	
<i>k</i>	7,00	7,50	
<i>l</i>	8,50	9,00	
<i>m</i>	23,60	23,80	
<i>n</i>	35,20	35,40	
<i>p</i>	0,80	1,00	
<i>q</i>	1,10	1,30	
<i>r</i>	1,60	–	
<i>s</i>	2,60	–	
<i>u</i>	4,90	5,20	

NOTE 1 Design for slotting optional, closed contacts should meet electrical and mechanical requirements.

NOTE 2 Design for slotting optional, flared contacts $\varnothing c$ should be flared to $\varnothing 18,4 \sim \varnothing 18,5$.

NOTE 3 Mechanical reference plane.

NOTE 4 Three steel balls, $\varnothing 3$;

NOTE 5 The spring force is 2 N to 6 N, treval is 1,60 mm min.

NOTE 6 Ring.