

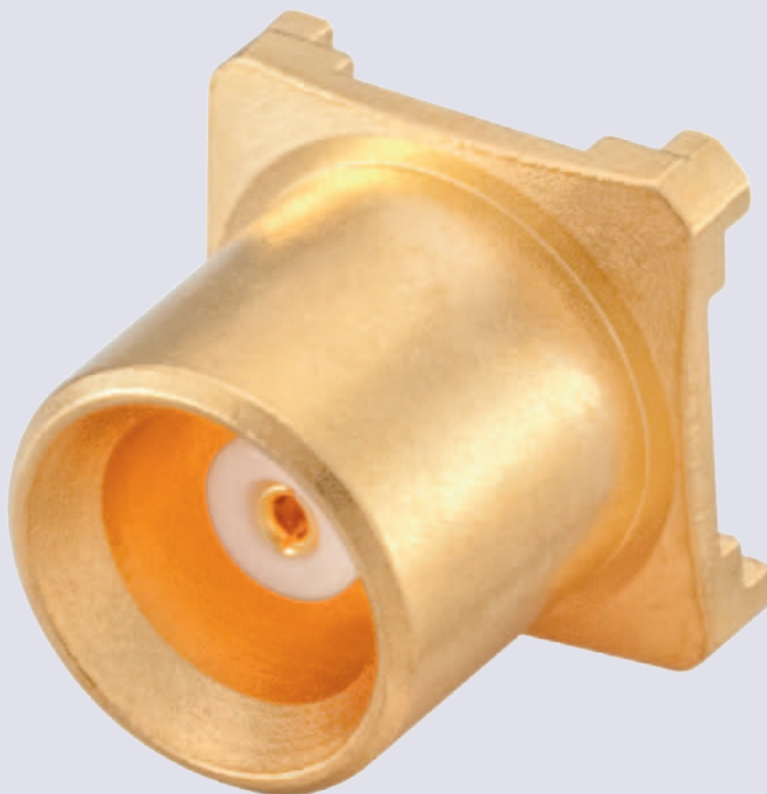
# MCX 50 Ω



MCX coaxial connectors, provided with a snap-on coupling mechanism, are mainly applied in RF cable connections up to 6 GHz, e.g. in fixed and wireless communication systems. MCX connectors are characterized by high reliability, long service life, as well as easy and fast mounting.

MCX-Koaxial-Steckverbinder verfügen über eine Schnappverbindung und sind konzipiert für HF-Verkabelungen im Frequenzbereich bis 6 GHz, u.a. in Anwendungen in den Bereichen Festnetz-Telekommunikation und Mobilfunkanlagen. Vorteile von MCX-Steckverbindern sind hohe Zuverlässigkeit, lange Lebensdauer sowie einfache und schnelle Montierbarkeit.

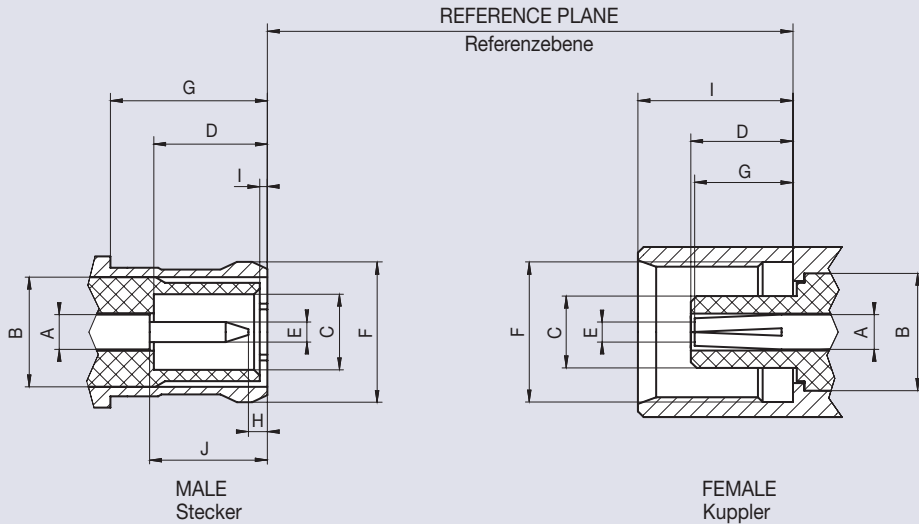
MCX 50  $\Omega$



# MCX 50 Ω

## Interface Dimensions MCX 50 Ω

Code 29



	Male   Stecker		Female   Kuppler	
	min.	max.	min.	max.
A	1)		1) 2)	
B	–	∅ 3.00 2)	∅ 3.05 nom.	
C	∅ 2.00	–	–	∅ 1.98
D	2.80	–	2.60	2.80
E	∅ 0.48	∅ 0.53	2)	
F	–	∅ 3.80 2)	∅ 3.60	∅ 3.75
G	4.15	–	2.30	2.80
H	0.15	–	–	–
I	0.00	0.30	4.00	4.12
J	2.80	3.20	–	–

Dimensions in mm

<sup>1)</sup> Contact diameter refers to 50 Ω

<sup>2)</sup> Resilient, dimension to meet electrical and mechanical requirements

MCX connectors with 75 Ω characteristic impedance are available on request.

MCX Steckverbinder in 75 Ω sind auf Anfrage erhältlich.

### Features

- ▶ Interface according to IEC 61169-36, CECC 22220
- ▶ Frequency range DC to 6 GHz
- ▶ Return loss (cable connector straight) ≥ 20 dB (typ.)
- ▶ Impedance 50 Ω
- ▶ 30% size reduction compared to SMB connectors
- ▶ Snap-on coupling

### Product Range

- ▶ Cable connectors
- ▶ Panel connectors
- ▶ PCB connectors
- ▶ Terminations
- ▶ Adaptors

## Technical Data MCX 50 Ω

## Code 29

Applicable standards   Anwendbare Normen	
Interface according to   Interface gemäß	IEC 61169-36, CECC 22220
Electrical data   Elektrische Daten	
Impedance   Wellenwiderstand	50 Ω
Frequency range   Frequenzbereich	DC to 6 GHz
Return loss (cable connector straight)   Rückflussdämpfung (Kabelsteckverbinder gerade)	≥ 21 dB (typ.)
Insertion loss   Dämpfung	≤ 0.1 × √f (GHz) dB
Insulation resistance   Isolationswiderstand	≥ 1 GΩ
Center contact resistance   Übergangswiderstand Innenleiter	≤ 5 mΩ
Outer contact resistance   Übergangswiderstand Außenleiter	≤ 2.5 mΩ
Test voltage   Prüfspannung	750 V rms
Working voltage   Betriebsspannung	335 V rms
Contact current   Kontaktstrombelastbarkeit	≤ 1.5 A DC
RF leakage - Interface   Schirmdämpfung	≥ 70 dB @ DC to 1 GHz
Mechanical data   Mechanische Daten	
Mating cycles   Steckzyklen	≥ 500
Center contact captivation   Innenleiter Haltekraft	axial: ≥ 10 N
Engagement force   Steckkraft	≤ 25 N
Disengagement force   Ziehkraft	8 N to 20 N
Environmental data   Umweltdaten	
Temperature range   Temperaturbereich	-55 °C to +155 °C
Thermal shock   Temperaturzyklen	CECC 22220, Chapter 4.6.7
Damp heat   Feuchte Wärme	CECC 22220, Chapter 4.6.6
Corrosion resistance   Korrosionsbeständigkeit	CECC 22220, Chapter 4.6.10
Vibration   Vibration	CECC 22220, Chapter 4.6.3
Max. soldering temperature (PCB connectors)   Max. Löttemperatur (Leiterplattensteckverbinder)	IEC 61760-1, +260 °C for 10 sec.
Materials   Materialien	
Spring loaded contact parts   Federnde Kontaktteile	CuBe, Au plating
Center contact   Innenleiter	CuZn, Au plating
Outer contact   Außenleiter	CuZn, Au / white bronze plating
Crimping ferrule   Crimphülse	Cu, Au / white bronze plating
Dielectric   Dielektrikum	PTFE
Gasket   Dichtung	Rubber


Rosenberger connectors generally fulfill the indicated technical data. Individual values of connectors may deviate depending upon application, design, type of cable, assembly method and workmanship. Data sheets for particular products can be downloaded on our website or can be provided on request from your Rosenberger sales partner.

Rosenberger-Steckverbinder erfüllen grundsätzlich die hier angegebenen technischen Daten. Je nach Anwendung, Bauart, Kabeltyp, Montageart und -ausführung können einzelne Werte der Steckverbinder hiervon abweichen. Datenblätter zu einzelnen Produkten können Sie von unserer Website herunterladen oder auf Anfrage von Ihrem Rosenberger-Ansprechpartner erhalten.

## Cable Connectors Semi-Rigid Cables


### Straight Plug, solder

Semi-Rigid Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
29 S 111-271 L5	186500	100	standard	71	

### Right Angle Plug, solder


Semi-Rigid Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
29 S 211-271 L5	195003	100	standard	71	

## Cable Connectors - Flexible Cables


### Straight Plug, crimp

Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
29 S 111-101 L5	187219	100	standard	01	
29 S 111-102 L5	170219	100	standard	02	
29 S 111-103 L5	187218	100	standard	03	

### Right Angle Plug, solder-crimp


Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
29 S 211-301 L5	195718	50	standard	01	
29 S 211-302 L5	183820	100	standard	02	
29 S 211-303 L5	197829	100	standard	03	

## Panel Connectors - Coaxial End

### Panel Jack, round flange

Coaxial End


Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
29 K 501-500 L5	182267	100	blister	round flange	

MCX

## PCB Connectors - SMD


### Straight Jack, PCB

SMD

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
29 K 101-40M L5	162788	750	tape & reel	removable plastic cap on suction area	
	182262	100	blister		


### Right Angle Jack, PCB

SMD

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
29 K 203-40M L5	182266	50	blister		

### Straight/Right Angle Jack, PCB



SMD

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
29 K 10A-40M L5	182268	500	tape & reel	application as straight type removable plastic cap on suction area	
29 K 201-40M L5	181393	1500	tape & reel	application as right angle type without removable plastic cap on suction area	
	182271	100	blister		

## PCB Connectors - Solder Pin


### Straight Jack, PCB

Solder Pin

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
29 K 101-400 L5	182261	100	standard	without stand-off	
29 K 102-400 L5	163762	50	standard	stand-off version	

### Right Angle Jack, PCB


Solder Pin

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
29 K 203-400 L5	169607	100	blister		



## Adaptors

### Adaptors MCX - SMA


Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
29 S 132-K01 N5	151696	1	standard	MCX male - SMA female hexagonal flange	

### Adaptors MCX - N 50 Ω

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
29 S 153-S00 Z5	102471	1	standard	MCX male - N male	
29 S 153-K00 Z5	100499	1	standard	MCX male - N female	
29 K 153-S00 Z5	104497	1	standard	MCX female - N male	
29 K 153-K00 Z5	101934	1	standard	MCX female - N female	

## Terminations

### Termination Plug

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Return Loss	
29 S 15R-1.0 E3	105913	100	standard	1 Watt Frequency: DC to 6 GHz	$\geq 23.1$ dB @ DC to 4 GHz $\geq 17.7$ dB @ 4 GHz to 6 GHz	

MCX connectors in 75 Ω version are available on request.