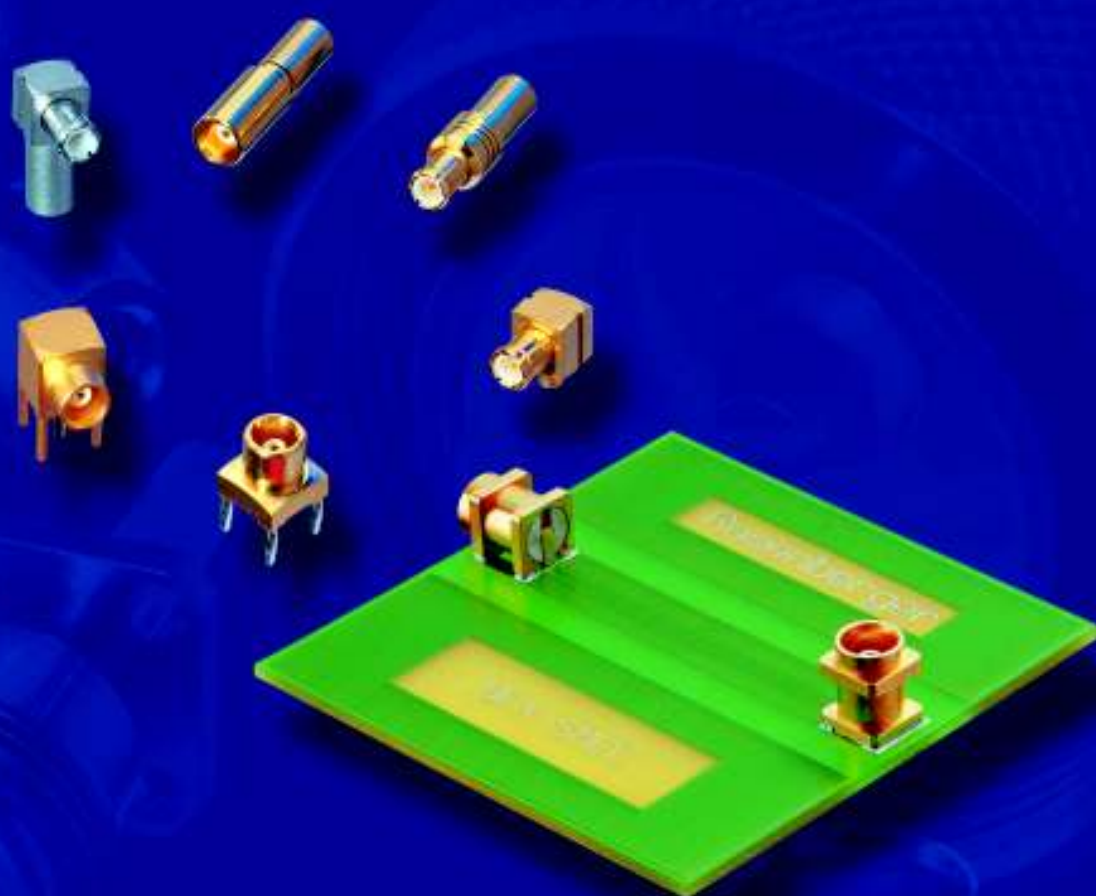




MCX (50 Ω) - Microminiature Coaxial Connectors for Frequencies up to 6 GHz

MCX - optimal connector series, provided with a snap-on connecting system like SMB connectors, are characterized by small dimensions, high reliability, long service life and easy and fast mounting for frequencies up to 6 GHz. Due to the optimized design of the outer conductor and the locking devices, the required mounting space of MCX connectors is reduced by approximately 30 %.

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

Product Features

- Interface according to IEC 60169-36, CECC 22 220
- Quality tested according to IEC 60068
- Frequency range up to 6 GHz
- VSWR (straight connector): ≤ 1.20 typ.
- 30 % space reduction compared to SMB connectors
- High reliability
- Fast and easy mounting.

Product Range

- Cable connectors (straight and right angle) for flexible and semi-rigid cables
- PCB connectors (straight and right angle) as solder, press-fit and SMD versions
- Terminations
- Adaptors.

Further connectors also in 75 Ω version are available on request.

Application Examples

RF-cable connections for applications in fixed and wireless communications systems.

MCX (50 Ω) - Mikrominiatur-Koaxialsteckverbinder für Anwendungen bis 6 GHz

MCX - Optimale Steckverbinderreihe mit Schnappverbindung in kleiner Baugröße, die durch hohe Zuverlässigkeit, große Lebensdauer sowie einfache und schnelle Montierbarkeit im Frequenzbereich bis 6 GHz gekennzeichnet ist. Der benötigte Bauraum von MCX-Steckverbindern ist, durch günstige Gestaltung der Außenleiter und des Rastmechanismus, im Vergleich zu SMB-Steckverbindern um etwa 30% verringert.

MCX-Steckverbinder in 75- Ω -Wellenwiderstand auf Anfrage.

Produkteigenschaften

- Interface gemäß IEC 60169-36, CECC 22 220
- Qualitätsprüfung gemäß IEC 60068
- Frequenzbereich max. bis 6 GHz
- VSWR (gerader Steckverbinder): $\leq 1,20$ typ.
- 30 % kleinere Baugröße im Vergleich zur Serie SMB
- Hohe Zuverlässigkeit
- Einfache, schnelle Montage.

Produktspektrum

- Kabelsteckverbinder (gerade und gewinkelt) für flexible und Semi-Rigid-Kabel
- Leiterplatten-Steckverbinder (gerade und gewinkelt) in Löt-, Press-fit- und SMD Bauformen
- Abschlusswiderstände
- Adapter.

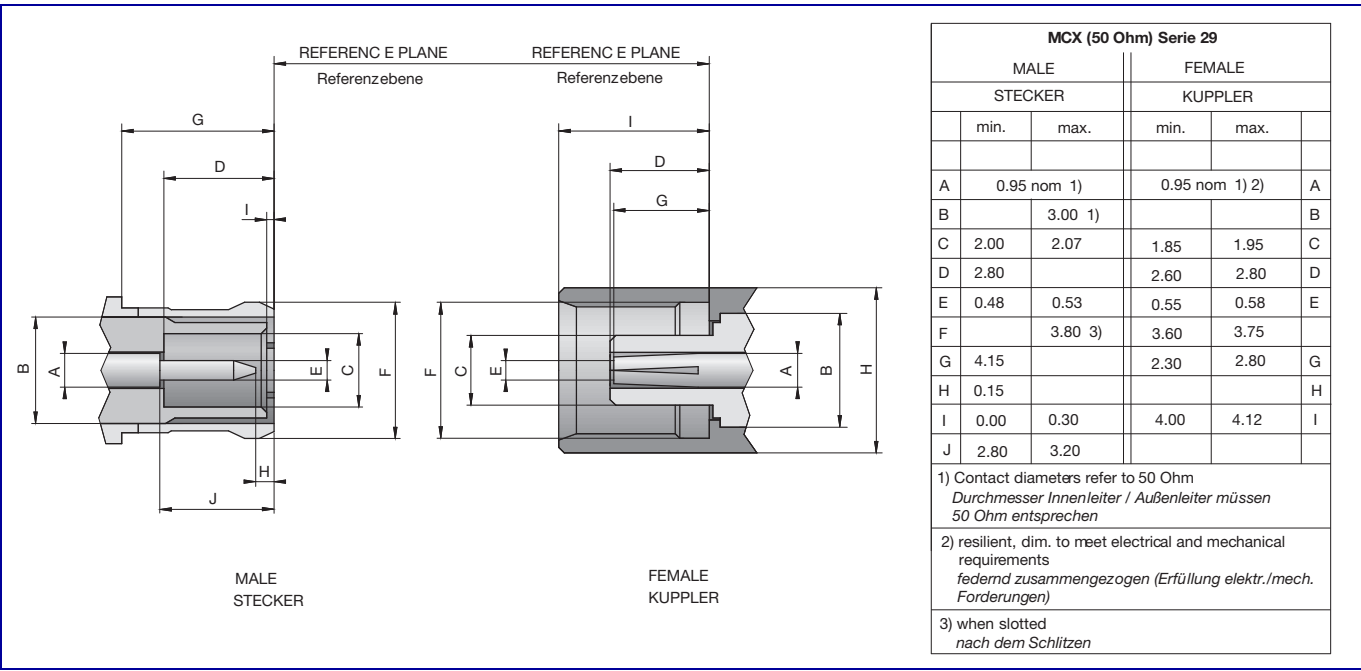
Weitere Steckverbinder, auch in 75- Ω -Ausführung, auf Anfrage erhältlich.

Anwendungsbeispiele

HF-Verkabelungen, unter anderem für Anwendungen in der Festnetz-Telekommunikation und im Mobilfunkanlagenbau.

Interface Dimensions

Anschlussmaße



Technical Data

Technische Daten

Applicable standards		Anwendbare Standards
Interface according to	IEC 60169- 36, CECC 22 220	Interface gemäß
Quality tested according to	IEC 60068	Qualitätsprüfung gemäß

Electrical data		Elektrische Daten
Impedance	50 Ω	Wellenwiderstand
Frequency range	0...6 GHz	Frequenzbereich
VSWR (straight contacts)	≤ 1.20 typ.	VSWR (gerader Kontakt)
Insertion loss	0.1 dB max. / 1 GHz typ.	Dämpfung
Insulation resistance	≥ 1 GΩ	Isolationswiderstand
Center contact resistance	≤ 5mΩ	Übergangswiderstand Innenleiter
Outer contact resistance	≤ 2.5mΩ	Übergangswiderstand Außenleiter
Test voltage	750 V rms	Prüfspannung
Working voltage	335 V rms	Betriebsspannung
Contact current	typ. 1.5 A DC max.	Kontakt- Strombelastbarkeit

Mechanical data		Mechanische Daten
Mating cycles	≥ 500	Steckzyklen
Engagement force	≤ 25 N	Einsteckkraft
Disengagement force	8 N - 20 N	Ausziehkraft
Center contact captivation	≥ 10 N	Innenleiter Haltekraft

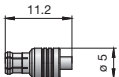
Environmental data		Umweltdaten
Temperature range	- 55°C - +155°C	Temperaturbereich
Vibration	CECC 22220 Chapter 4.6.3	Vibration
Moisture resistance	CECC 22220 Chapter 4.6.6	Feuchtigkeitsbeständigkeit
Corrosion resistance	CECC 22220 Chapter 4.6.10	Korrosionsbeständigkeit
Thermal shock	CECC 22220 Chapter 4.6.7	Temperaturzyklen

Materials		Materialien
Outer contact	CuZn	Außenleiter
Spring loaded contact parts	CuBe	Federnde Kontaktteile
Dielectric	PTFE	Dielektrikum
Crimping ferrule	Soft Copper	Crimphülse
Gasket	Rubber	Dichtung
Plating outer contact	Au/white bronze	Oberfläche Außenleiter
Plating center contact	Au	Oberfläche Innenleiter

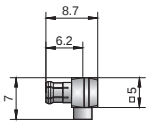
Rosenberger- connectors fulfill in principle the indicated data of the Technical Data. Individual values of connectors may deviate depending upon application, design, type of cable, assembly method and execution. Specific data sheets for particular products can be provided on request from your Rosenberger sales partner.

Rosenberger- Steckverbinder erfüllen grundsätzlich die in den Technischen Daten angegebenen Daten. Je nach Anwendung, Bauart, Kabeltyp, Montageart und -ausführung können einzelne Werte von Steckverbindern hiervon abweichen. Spezifische Datenblätter zu einzelnen Produkten erhalten Sie auf Anfrage von Ihrem Rosenberger- Ansprechpartner.

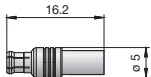
Cable Connectors Semi- Rigid Cable**Kabel- Steckverbinder - Semi- Rigid- Kabel****Straight Plug, solder****Stecker gerade, löt****Semi- Rigid**

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	
29 S 101- 270 E3	70	29 B	100	
29 S 101- 271 E3	71	29 B	100	

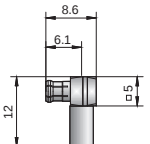
Right Angle Plug, solder**Winkelstecker, löt****Semi- Rigid**

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	
29 S 201- 271 E3	71	29 D2	100	

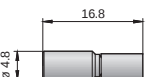
Cable Connectors - Flexible Cables**Kabel- Steckverbinder - Flexible Kabel****Straight Plug, crimp****Stecker gerade, crimp****Flexible Cables**

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts	
29 S 101- 101 E3	01	29 A	100	11 W 150- 402	
29 S 101- 102 E3	02	29 A	100	11 W 150- 402	
29 S 101- 103 E3	03	29 A	100	11 W 150- 402	
29 S 101- 103 N3	03	29 A	100	11 W 150- 402	

Right Angle Plug, solder- crimp**Winkelstecker, löt- crimp****Flexible Cables**

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts	
29 S 201- 301 E3	01	29 C	100	11 W 150- 102	
29 S 201- 302 E3	02	29 C	100	11 W 150- 102	
29 S 201- 303 E3	03	29 C	100	11 W 150- 102	
29 S 201- 303 N3	03	29 C	100	11 W 150- 102	

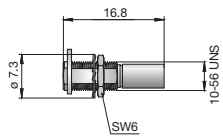
Straight Jack, crimp**Kuppler gerade, crimp****Flexible Cables**

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts	
29 K 101- 101 E3	01	29 A	1	11 W 150- 402	
29 K 101- 102 E3	02	29 A	1	11 W 150- 402	
29 K 101- 103 E3	03	29 A	1	11 W 150- 402	

Panel Jack, crimp, round flange

Gehäusekuppler, crimp, Rundflansch

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	Crimp Inserts	
29 K 501- 103 N3	03	29 A	B 22	1	11 W 150- 402	

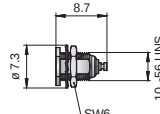
Panel Connectors - Coaxial End

Gehäuse- Steckverbinder - Koaxiales Ende

Panel Jack; round flange

Gehäusekuppler, Rundflansch

Coaxial End

Ordering Number	Panel Piercing / PCB Layout	Packing Unit	
29 K 501- 500 E3	B 22	100	

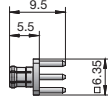
PCB Connectors - SMD

Leiterplatten- Steckverbinder - SMD

Straight Plug, PCB

Leiterplatten- Stecker gerade

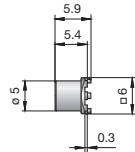
Solder Pin

Ordering Number	Panel Piercing / PCB Layout	Packing Unit	
29 S 103- 400 F3	B 30	100 blister	

Straight Jack, PCB

Leiterplatten- Kuppler gerade

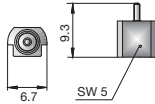
SMD

Ordering Number	Panel Piercing / PCB Layout	Packing	Packing Unit	
29 K 101- 40M F3	B 30	VG 34.75000	100 blister, 750 tape & reel	

Right Angle Jack, PCB

Leiterplatten- Winkelkuppler

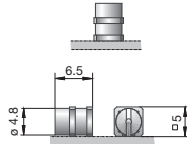
SMD

Ordering Number	Footprints		Packing Unit	
29 K 203- 40M E3	on request		100 blister	

Straight/Right Angle Jack, PCB

Leiterplatten- Kuppler/Winkelkuppler gerade

SMD

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing	Packing Unit	
29 K 201- 40M E4	please specify intended application: as right angle or as straight type	on request	VG 04.50000 (straight); VG 12.1M500 (r.a)	100 blister, 500 straight tape & reel, 1500 r.a. tape & reel	

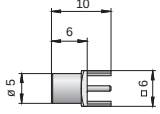
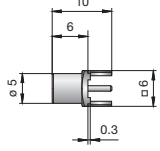
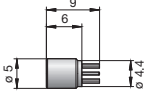
PCB Connectors - Solder Pin

Leiterplatten- Steckverbinder - Löt- Pin

Straight Jack, PCB

Leiterplatten- Kuppler gerade

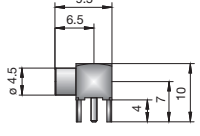
Solder Pin

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
29 K 101- 400 E3	without stand- off	B 30	300	
29 K 102- 400 F3	Stand- off version	B 30	100	
29 K 104- 400 E3		B 35	100 blister	

Right Angle Jack, PCB

Leiterplatten- Winkelkuppler

Solder Pin

Ordering Number	Panel Piercing / PCB Layout	Packing	Packing Unit	
29 K 203- 400 E3	B 30		100 blister	

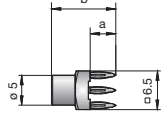
PCB Connectors - Press- fit

Leiterplatten- Steckverbinder - Press- fit

Straight Jack, PCB

Leiterplatten- Kuppler gerade

Press- fit

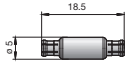
Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
29 K 102- 40P E3	a = 4.3 mm b = 10.8 mm	B 79	100	
29 K 105- 40P E3	a = 2.8 mm; b = 9.3 mm	B 79	100	

Adaptors (In- Serie)

Adapter (In- Serie)

Straight Adaptor, MCX male- male

Adapter, gerade MCX Stecker/Stecker

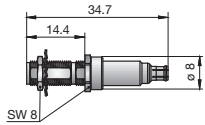
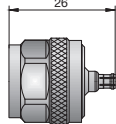
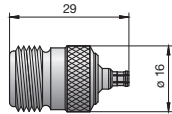
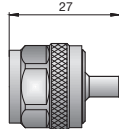
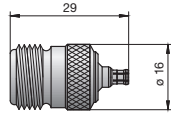
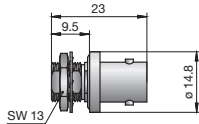
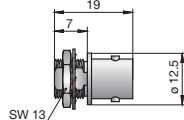
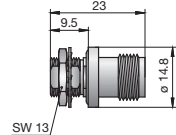
Ordering Number	Version	Remarks	Packing Unit	
29 S 101- S00 E3	straight	MCX male - male	1	

Adaptors (Between Series)

Adapter (serienübergreifend)

MCX - 50 Ω

MCX - 50 Ω

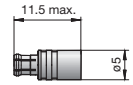
Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
29 S 132- K01 N3	straight	MCX male - SMA female	B 56	1	
29 S 153- S00 Z3	straight	MCX male - N male		1	
29 S 153- K00 Z3	straight	MCX male - N female		1	
29 K 153- S00 Z3	straight	MCX female - N male		1	
29 K 153- K00 Z3	straight	MCX female - N female		1	
29 K 551- K00 A3	straight	MCX female - BNC female; round flange	B 2	1	
29 K 571- K00 N4	straight	MCX female - BNC female 75 Ω; round flange	B 1	1	
29 K 556- K00 A3	straight	MCX female - TNC female; round flange	B 2	1	

Terminations

Abschlusswiderstände

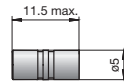
Termination Plug

Abschlusswiderstand Stecker

Ordering Number	Remarks	Packing Unit	
29 S 15R- 1.0 E3	1 W; Frequency DC - 6 GHz VSWR < 1.15 @ DC to 4 GHz VSWR < 1.3 @ 4 to 6 GHz	1	

Termination Jack

Abschlusswiderstand Kuppler

Ordering Number	Remarks	Packing Unit	
29 K 15R- 1.0 E3	1 W; Frequency DC - 6 GHz VSWR < 1.15 @ DC to 4 GHz VSWR < 1.3 @ 4 to 6 GHz	1	

MCX connectors in 75 Ω version are available on request.

MCX-Steckverbinder in 75- Ω -Ausführung auf Anfrage.

