

## Series MCX 50 Ω / 75 Ω

Compact microminiature coaxial connector with high reliability and long service life for frequencies up to 6 GHz for 50 Ω version.

MCX connectors have a snap-on connecting system. In comparison to the related SMB connector (identical design of center conductor and insulator support), whose reliability has been retained, the optimized arrangement of the outer conductor and the locking device requires approximately 30 % less mounting space.

Straight and angled connector types are available for flexible and semi-rigid cable with diameters from 1.2 mm to 3.1 mm, as well as models for panel and PCB applications with various mounting technologies.

Connectors with 75 Ω characteristic impedance on request.

Design in accordance with: CECC 22 220

Quality tested in accordance with: US MIL-Std 202

Cable mounting: crimp, solder-crimp and solder versions

Special versions: components for PCB applications (solder, press-fit, SMT, SMCC), cable clamps

## Serie MCX 50 Ω / 75 Ω

*Kompakter Mikrominiatur-Koaxialsteckverbinder hoher Zuverlässigkeit, großer Lebensdauer und einfacher Montierbarkeit für Einsatzfälle bis 6 GHz in der 50 Ω - Ausführung.*

*Der Steckverbinder ist mit einer Schnappverbindung ausgestattet. Gegenüber dem nahe verwandten SMB-Steckverbinder (gleiche Gestaltung von Innenleiter und Isolierstütze), dessen Zuverlässigkeit beibehalten wird, ergibt sich durch günstige Gestaltung des Außenleiters und des Rastmechanismus eine Verringerung des Bauraumes von ca. 30%.*

*Es existieren Bauformen in gerader und abgewinkelter Ausführung für flexible und halbstarre Kabel mit Durchmessern von ca. 1,2 mm bis 3,1 mm, für Gehäuseeinbau und für Leiterplatteinsatz mit verschiedenen Anschlußtechniken.*

*Steckverbinder in 75 Ω - Ausführung auf Anfrage.*

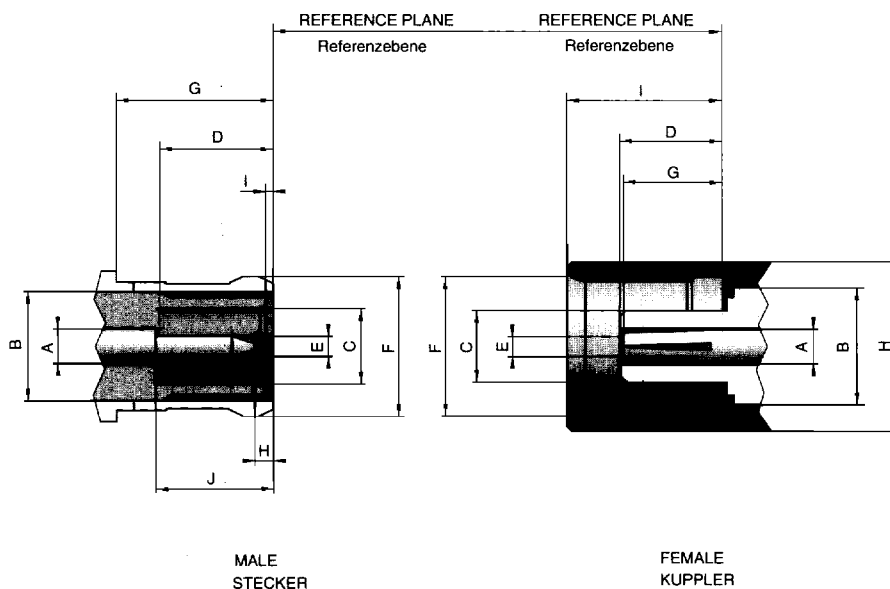
*Anschlußdimensionen nach: CECC 22 220*

*Qualitätsprüfung nach: US MIL-STD 202*

*Kabelmontage: Crimp-, Löt-Crimp- oder Lötverbindung*

*Spezialausführungen: Elemente für Leiterplatten (Löt-, SMT, SMCC und Einpreßtechnik), Kabelabfangungen,*

### Mechanical Characteristics



### Anschlußmaße

MCX (50 Ohm) Serie 29					
MALE			FEMALE		
STECKER			KUPPLER		
	min.	max.	min.	max.	
A	0.95 nom 1)		0.95 nom 1) 2)		A
B	3.00 1)				B
C	2.00	2.07	1.85	1.95	C
D	2.80		2.60	2.80	D
E	0.48	0.53	0.55	0.58	E
F		3.80 3)	3.60	3.75	
G	4.15		2.30	2.80	G
H	0.15				H
I	0.00	0.30	4.00	4.12	I
J	2.80	3.20			

1) Contact diameters refer to 50 Ohm  
Durchmesser Innenleiter / Außenleiter müssen 50 Ohm entsprechen

2) resilient, dim. to meet electrical and mechanical requirements  
federnd zusammengezogen (Erfüllung elektr./mech. Forderungen)

3) when slotted  
nach dem Schlitzten

**Technical Characteristics MCX 50 Ω / 75 Ω**

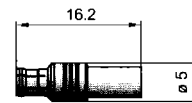
**Technische Daten MCX 50 Ω / 75 Ω**

Electrical characteristics		Elektrische Daten	
Characteristic impedance	50 Ω / 75 Ω	Wellenwiderstand	
Frequency range	0...6 GHz / 0...1.5 GHz	Frequenzbereich	
VSWR (straight contacts)	≤ 1.20 typ. / ≤ 1.35 typ.	VSWR (gerader Kontakt)	
Insertion loss (dB)	0.1 dB max. /1GHz typ.	Dämpfung (dB)	
Insulation resistance	1000 MΩ	Isolationswiderstand	
Center contact resistance	≤ 5.0 mΩ	Übergangswiderstand Innenleiter	
Outer contact resistance	≤ 2.5 mΩ	Übergangswiderstand Außenleiter	
Test voltage	750 V rms	Prüfspannung	
Working voltage	335 V rms	Betriebsspannung	
Contact current	typ. 1.5 A DC max.	Strombelastbarkeit	
Mechanical characteristics		Mechanische Daten	
Engagement force	≤ 15N max.	Einsteckkraft	
Disengagement force	8N ≤ F <sub>a</sub> ≤ 20 N	Ausziehkraft	
Center contact retention force	≥ 10N	Innenleiter Haltekraft	
Connecting operations	≥ 500	Anzahl Steckzyklen	
Environmental		Umgebungseinflüsse	
Temperature range	-65°C - +155°C	Temperaturbereich	
Vibration	MIL-STD-202 Meth. 204/B	Vibration	
Humidity	MIL-STD-202 Meth. 106/D	Feuchtigkeit	
Shock	MIL-STD-202 Meth. 213/B	Schock	
Temperature cycle	MIL-STD-202 Meth. 102/C	Temperatur Zyklen	
Materials		Materialien	
Body	Brass	Außenleiter	
Spring loaded contacts parts	CuBe	fedemde Kontaktteile	
Insulator	PTFE	Isolator	
Crimping sleeve	Soft Copper	Krimphülse	
Gaskets	Rubber	Dichtungen	
Plating body contact area	Au	Oberfläche Kontaktzone Außenleiter	
Plating center contact area	Au	Oberfläche Kontaktzone Innenleiter	

**STRAIGHT PLUG, Crimp**

**STECKER, crimp**

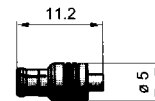
Part Number	Cable Group	Assembly Instruction	Crimp-Insert	Remarks
29 S 101-101 D3	01	29 A	11 W 150-402	
29 S 101-102 D3	02	29 A	11 W 150-402	
29 S 101-103 D3	03	29 A	11 W 150-402	



**STRAIGHT PLUG, Solder**

**STECKER, löt**

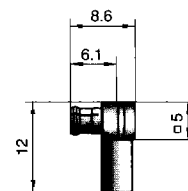
Part Number	Cable Group	Assembly Instruction	Remarks
29 S 101-270 D3	70	29 B	
29 S 101-271 D3	71	29 B	



**RIGHT ANGLE PLUG, Solder-Crimp**

**WINKELSTECKER, löt-crimp**

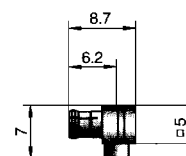
Part Number	Cable Group	Assembly Instruction	Crimp-Insert	Remarks
29 S 201-301 D3	01	29 C	11 W 150-402	
29 S 201-302 D3	02	29 C	11 W 150-402	
29 S 201-303 D3	03	29 C	11 W 150-402	



**RIGHT ANGLE PLUG, Solder**

**WINKELSTECKER, löt**

Part Number	Cable Group	Assembly Instruction	Remarks
29 S 201-270 D3	70	29 D2	
29 S 201-271 D3	71	29 D2	



**STRAIGHT JACK, Crimp**

**KUPPLER gerade, crimp**

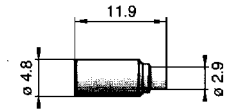
Part Number	Cable Group	Assembly Instruction	Crimp-Insert	Remarks
29 K 101-101 D3	01	29 A	11 W 150-402	
29 K 101-102 D3	02	29 A	11 W 150-402	
29 K 101-103 D3	03	29 A	11 W 150-402	



**STRAIGHT JACK, Solder**

**KUPPLER gerade, löt**

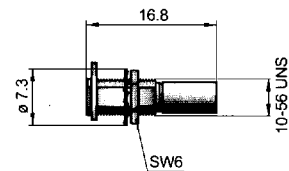
Part Number	Cable Group	Assembly Instruction	Remarks
29 K 101-270 D3	70	29 B	
29 K 101-271 D3	71	29 B	



**BULKHEAD CABLE JACK, Crimp**

**GEHÄUSEKUPPLER für Kabel, crimp**

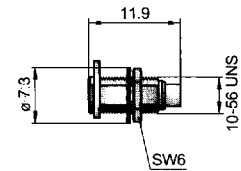
Part Number	Cable Group	Assembly Instruction	Panel Piercing	Crimp-Inserts	Remarks
29 K 501-101 D3	01	29 A	B 22	11 W 150-402	
29 K 501-102 D3	02	29 A	B 22	11 W 150-402	
29 K 501-103 D3	03	29 A	B 22	11 W 150-402	



**BULKHEAD CABLE JACK, Solder**

**GEHÄUSEKUPPLER für Kabel, löt**

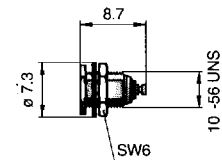
Part Number	Cable Group	Assembly Instruction	Panel Piercing	Remarks
29 K 501-270 D3	70	29 B	B 22	
29 K 501-271 D3	71	29 B	B 22	



**BULKHEAD JACK**

**GEHÄUSEKUPPLER**

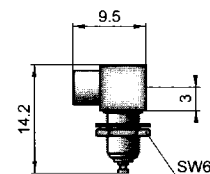
Part Number	Panel Piercing	Remarks
29 K 501-500 D3	B 22	



**RIGHT ANGLE BULKHEAD JACK**

**WINKELGEHÄUSEKUPPLER**

Part Number	Panel Piercing	Remarks
29 K 201-500 D3	B 22	

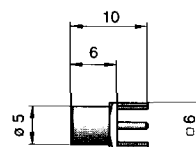


**JACK for PCB**

**LEITERPLATTENKUPPLER**

Part Number	Panel Piercing	Remarks
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29 K 101-400 D3 B 30

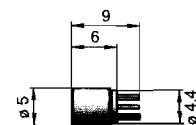


**JACK for PCB**

**LEITERPLATTENKUPPLER**

Part Number	Panel Piercing	Remarks
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29 K 104-400 D3 B 35

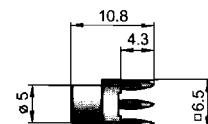


**PRESS-FIT JACK for PCB**

**PRESS-FIT LEITERPLATTENKUPPLER**

Part Number	Panel Piercing	Remarks
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29 K 102-40P D3 B 79

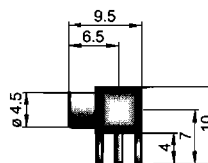


**RIGHT ANGLE JACK for PCB**

**LEITERPLATTEN-WINKELKUPPLER**

Part Number	Panel Piercing	Remarks
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29 K 203-400 D3 B 30

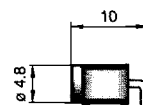


**RIGHT ANGLE JACK SMD**

**WINKELKUPPLER SMD**

Part Number	Panel Piercing	Remarks
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29 K 202-400 D3 5.08 pitch

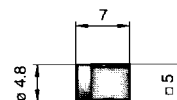


**RIGHT ANGLE JACK SMCC**

**WINKELKUPPLER SMCC**

Part Number	Panel Piercing	Remarks
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29 K 201-600 D3

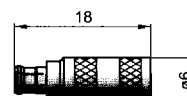


**TERMINATION PLUG**

**ABSCHLUSS-STECKER**

Part Number	Remarks
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29 S 155-025 D3 0.25 W; 0 - 4 GHz

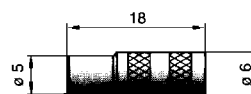


**TERMINATION JACK**

**ABSCHLUSS-KUPPLER**

Part Number	Remarks
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29 K 155-025 D3 0.25 W; 0 - 4 GHz

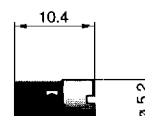


**ADAPTOR**

**VERBINDER**

Part Number	Remarks
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29 K 501-K00 D3 2 x jack

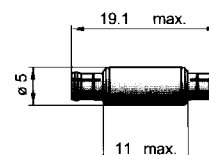


**ADAPTOR**

**VERBINDER**

Part Number	Remarks
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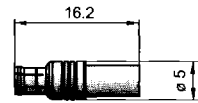
29 S 101-S00 D3 2 x plug



**STRAIGHT PLUG, Crimp 75 Ω**

**STECKER gerade, crimp 75 Ω**

Part Number	Cable Group	Assembly Instruction	Crimp-Inserts	Remarks
29 S 171-102 D3	02	29 A	11 W 150-402	75 Ω



**RIGHT ANGLE PLUG, Solder-Crimp 75 Ω**

**WINKELSTECKER, lötl-crimp 75 Ω**

Part Number	Cable Group	Assembly Instruction	Crimp-Inserts	Remarks
29 S 271-302 D3	02	29 C	11 W 150-402	75 Ω

