

4.3-10

4.1-9.5



The 4.3-10 connector system is designed to meet the rising performance needs of mobile network equipment e.g. to connect the RRU to the antenna.

Features of the 4.3-10 Connectors are compact connector sizes, best electrical performance, low PIM and coupling torque as well as the easy installation.

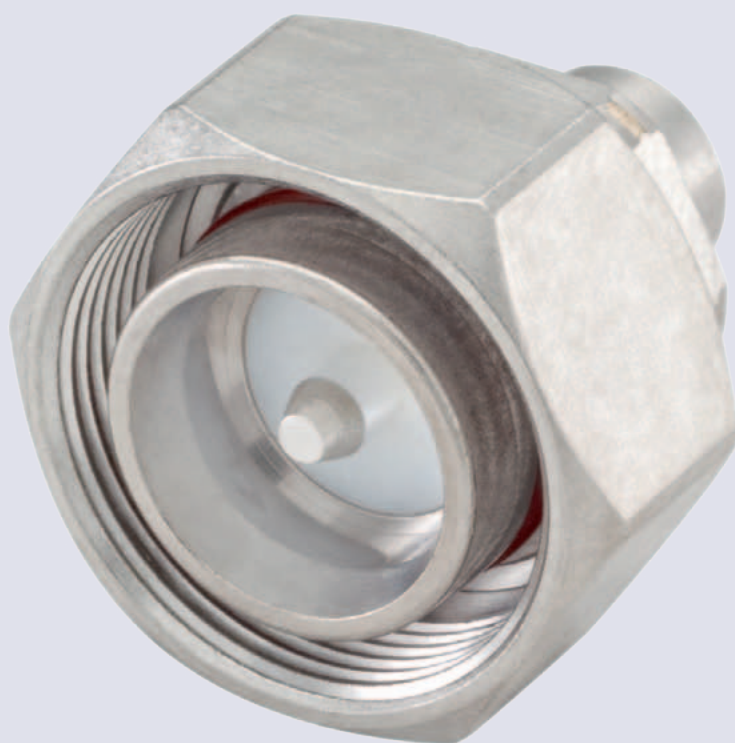
Three different coupling mechanisms of the plug connectors screw, quick-lock/push-pull and hand-screw types are mateable with all jack connectors.

Das 4.3-10 Steckverbindersystem wurde für die steigenden Effizienzanforderungen an Mobilfunknetze entworfen und findet Anwendung z.B. zwischen RRU und Antenne.

4.3-10 Steckverbinder zeichnen sich durch die kompakte Baugröße, bestmögliche elektrische Leistung, niedrige PIM, geringes Kupplungsdrehmoment sowie die einfache Installation aus.

Die drei verschiedenen Steckervarianten Screw, Quick-Lock/ Push-Pull und Hand-Screw sind mit allen Kupplern steckbar.

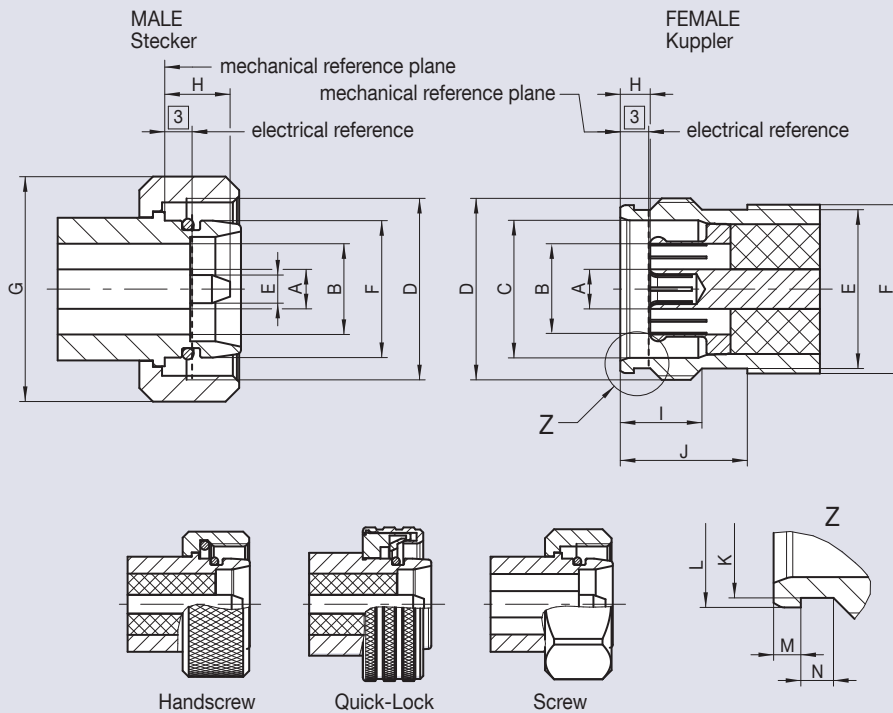
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Interface Dimensions 4.3-10

Code 64



	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A	4.35 nom.		4.35 nom.	
B	10.00 nom.		9.80	10.20
C	-	-	15.13	15.19
D	M 20 x 1		M 20 x 1	
E	3.07	3.13	17.45	17.55
F	15.07	15.11	18.60	-
G	SW 22		-	-
H	-	8.00	3.10	3.50
I	-	-	8.70	9.00
J	-	-	13.90	14.10
K	-	-	17.40	17.50
L	-	-	18.44	18.50
M	-	-	1.44	1.50
N	-	-	1.70	1.90

Dimensions in mm

Three different coupling mechanisms of the 4.3-10 plugs screw, quick-lock/push-pull and hand-screw types are mateable with all 4.3-10 jacks.

Die drei verschiedenen 4.3-10-Steckervarianten Screw, Quick-Lock/Push-Pull und Hand-Screw sind mit allen 4.3-10-Kupplern koppelbar.

Features

- ▶ Interface according IEC 61169-54
- ▶ Frequency range DC to 12 GHz
- ▶ Return loss (cable connector straight) ≥ 36 dB @ DC to 4 GHz
- ▶ Minimum pitch: ≥ 25.4 mm
- ▶ Low PIM
- ▶ Screw, quick-lock/push-pull, hand-screw coupling

Product Range

- ▶ Cable connectors
- ▶ Panel connectors
- ▶ Adaptors

Technical Data 4.3-10

Code 64

Applicable standards Anwendbare Normen	
Interface according to Interface gemäß	IEC 61169-54
Electrical data Elektrische Daten	
Impedance Wellenwiderstand	50 Ω
Frequency range Frequenzbereich	DC to 12 GHz
Return loss (cable connector straight) Rückflusdämpfung (Kabelsteckverbinder gerade)	≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz
Insertion loss Dämpfung	≤ 0.05 x √f (GHz) dB
Insulation resistance Isolationswiderstand	≥ 5 GΩ
Center contact resistance Übergangswiderstand Innenleiter	≤ 1 mΩ
Outer contact resistance Übergangswiderstand Außenleiter	≤ 1 mΩ
Test voltage Prüfspannung	2500 V rms
Working voltage Betriebsspannung	500 V rms
Power handling Leistungsbelastbarkeit	500 W @ 2 GHz / 90 °C
RF leakage - Interface Schirmdämpfung	≥ 120 dB @ DC to 6 GHz (screw type) ≥ 90 dB @ DC to 3 GHz (hand-screw / quick-lock) ≥ 70 dB @ 3 GHz to 6 GHz (hand-screw / quick-lock)
Intermodulation 3rd order Intermodulation 3. Ordnung	≤ -160 dBc (2 x 46 dBm) @ 0.4 to 4 GHz ≤ -166 dBc (2 x 43 dBm) @ 0.4 to 4 GHz
Mechanical data Mechanische Daten	
Mating cycles Steckzyklen	≥ 100
Coupling nut retention Überwurfmutter Haltekraft	≥ 450 N
Center contact captivation Innenleiter Haltekraft	axial: ≥ 30 N radial: ≥ 5 Ncm
Engagement force Steckkraft	100 N (typ.)
Disengagement force Ziehkraft	80 N (typ.)
Coupling test torque Prüfdrehmoment	8 Nm
Coupling torque recommended Drehmoment empfohlen	5 Nm
Pitch Packungsdichte	≥ 25.4 mm
Environmental data Umweltdaten	
Temperature range Temperaturbereich	-55 °C to +90 °C
Thermal shock Temperaturzyklen	IEC 61169-1, Sub-clause 9.4.4
Damp heat Feuchte Wärme	IEC 61169-1, Sub-clause 9.4.3
Climatic category Klimakategorie	IEC 60068-2-1 55/155/56
Degree of protection (mated pair) Schutzgrad (gekoppeltes Paar)	IEC 60529, IP 68
Corrosion resistance Korrosionsbeständigkeit	ISO 21207 Method B
Vibration Vibration	IEC 61169-1, Sub-clause 9.3.3
Shock Schock	IEC 60068-2-27
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 / CuZnSi, Ag plating
Center contact Innenleiter	CuBe / CuZn, Ag plating
Outer contact Außenleiter	CuZnSi / CuZn, Ag / white bronze plating
Body Gehäuse	CuZn, white bronze plating
Coupling nut Überwurfmutter	CuZn, white bronze plating
Locking sleeve Verriegelungshülse	CuZn, 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	Remarks	Cable Group	
64 S 101-273 N1	244613	25	standard	screw type	73	
64 S 131-273 N1	251104	25	standard	hand-screw type	73	
64 S 161-273 N1	272630	25	standard	quick-lock type	73	

Panel Jack, 4-hole flange


Semi-Rigid Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
64 K 401-272 B1	258862	40	box	4-hole flange 25.4 mm 4 x Ø 3.4 mm	72	
64 K 401-273 B1	251103	40	box	4-hole flange 25.4 mm 4 x Ø 3.4 mm	73	

Panel Connectors - Solder End




Panel Jack, 4-hole flange

Solder End

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
64 K 401-200 B1	260402	50	standard	4-hole flange 25.4 mm 4 x Ø 3.4 mm	

Adaptors

Adaptors 4.3-10 - 4.3-10



Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
64 K 101-K00 B1	265365	1	standard	4.3-10 female - female	
64 S 101-K00 B1	272633	1	standard	4.3-10 male screw type - female	
64 S 101-S00 N1	272635	1	standard	4.3-10 male - male screw type	

Adaptors

Adaptors 4.3-10 - 7-16




Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
60 K 164-S00 N1	256038	1	standard	7-16 female - 4.3-10 male screw type	
60 K 164-S60 N1	272629	1	standard	7-16 female - 4.3-10 male quick-lock type	
60 S 164-S00 N1	251967	1	standard	7-16 male - 4.3-10 male screw type	
60 S 164-K00 N1	251111	1	standard	7-16 male - 4.3-10 female	

Adaptors 4.3-10 - SMA

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
32 K 164-S00 N1	259821	1	standard	SMA female - 4.3-10 male screw type	
32 S 164-K00 N1	259820	1	standard	SMA male - 4.3-10 female	


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Adaptors 4.3-10 - N 50 Ω

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
53 K 164-S00 N1	256044	1	standard	N female - 4.3-10 male screw type	
53 S 164-K00 N1	255910	1	standard	N male - 4.3-10 female	
53 S 164-S00 N1	255912	1	standard	N male - 4.3-10 male screw type	

Special Tools

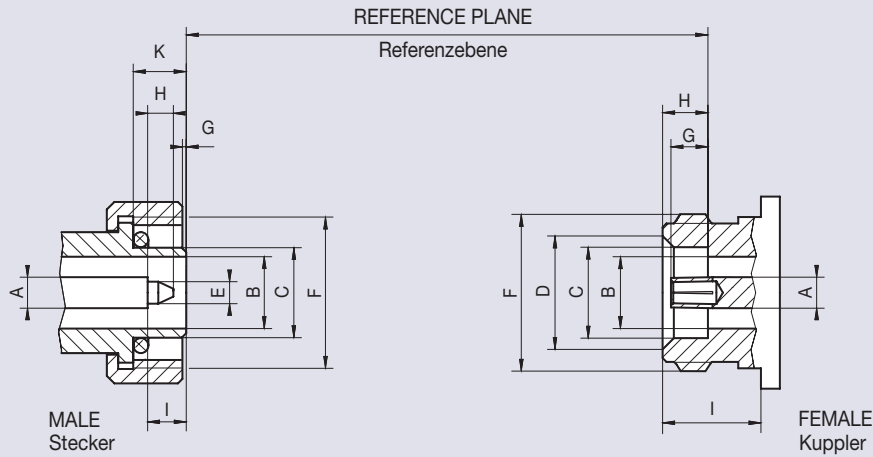
Torque Wrench

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
64 W 021-001	285127	1	standard	4.3-10 torque 5 Nm flat 22 mm	

4.1-9.5

Interface Dimensions 4.1-9.5

Code 65



	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A	Ø 4.13 nom.		Ø 4.13 nom.	
B	Ø 9.40	Ø 9.60	Ø 9.40	Ø 9.60
C	Ø 11.84	Ø 12.02	Ø 12.03	Ø 12.21
D	–	–	Ø 14.90	Ø 15.00
E	Ø 2.855	Ø 2.945	–	–
F	M 20 x 1		M 20 x 1	
G	0.00	1.00	4.73	5.03
H	2.00	4.00	5.80	6.20
I	5.05	5.35	8.00	–
K	1)		–	–

Dimensions in mm

¹⁾ Dimension to meet electrical and mechanical requirements

4.1-9.5 coaxial connectors are robust, weatherproof screw-on connectors with smaller dimensions than 7-16.

4.1-9.5-Koaxial-Steckverbinder sind robuste, witterungsbeständige Schraubsteckverbinder mit kleineren Abmessungen als 7-16-Steckverbinder.

Features

- ▶ Interface according to IEC 60169-11, DIN 47231
- ▶ Frequency range DC to 14 GHz
- ▶ Return loss (cable connector straight) ≥ 23 dB @ 4 GHz
- ▶ Impedance 50 Ω
- ▶ Screw-on coupling

Product Range

- ▶ Cable connectors
- ▶ Panel connectors
- ▶ Adaptors

Technical Data 4.1-9.5

Code 65

Applicable standards Anwendbare Normen	
Interface according to Interface gemäß	IEC 60169-11, DIN 47231
Electrical data Elektrische Daten	
Impedance Wellenwiderstand	50 Ω
Frequency range Frequenzbereich	DC to 14 GHz
Return loss (cable connector straight) Rückflusdämpfung (Kabelsteckverbinder gerade)	≥ 30 dB @ DC to 0.5 GHz ≥ 23 dB @ 0.5 GHz to 4 GHz ≥ 20 dB @ 4 GHz to 10 GHz
Insertion loss Dämpfung	≤ 0.05 x √f (GHz) dB
Insulation resistance Isolationswiderstand	≥ 5 GΩ
Center contact resistance Übergangswiderstand Innenleiter	≤ 1 mΩ
Outer contact resistance Übergangswiderstand Außenleiter	≤ 0.1 mΩ
Test voltage Prüfspannung	2500 V rms
Working voltage Betriebsspannung	1400 V rms
Power handling Leistungsbelastbarkeit	450 W @ 2 GHz / 90 °C
RF leakage - Interface Schirmdämpfung	≥ 114 dB @ DC to 1 GHz
Intermodulation 3rd order Intermodulation 3. Ordnung	≤ -160 dBc (2 x 43 dBm)
Mechanical data Mechanische Daten	
Mating cycles Steckzyklen	≥ 500
Coupling nut retention Überwurfmutter Haltekraft	≥ 500 N
Center contact captivation Innenleiter Haltekraft	axial: ≥ 80 N
Coupling test torque Prüfdrehmoment	≤ 15 Nm
Coupling torque recommended Drehmoment empfohlen	10 Nm
Pitch Packungsdichte	≥ 25.4 mm
Environmental data Umweltdaten	
Temperature range Temperaturbereich	-55 °C to +155 °C
Thermal shock Temperaturzyklen	IEC 60169-1, Sub-clause 16.4 (-55 °C / +155 °C)
Climatic category Klimakategorie	IEC 60068-2-1 55/155/56
Climatic sequence Klimasequenz	IEC 60169-1, Sub-clause 16.2, 55/155/56
Degree of protection (mated pair) Schutzgrad (gekoppeltes Paar)	IEC 60529, IP 68
Corrosion resistance Korrosionsbeständigkeit	IEC 60169-1, Sub-clause 16.7
Vibration Vibration	IEC 60169-1, Sub-clause 15.2.2
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 / CuSn, Ag plating
Center contact Innenleiter	CuZn, Ag plating
Outer contact Außenleiter	CuZn, Ag / white bronze plating
Crimping ferrule Crimphülse	Cu, white bronze plating
Dielectric Dielektrikum	PP / PS / 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.

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Cable Connectors - Semi-Rigid Cables

Panel Jack, 4-hole flange

Semi-Rigid Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group
65 K 401-272 N1	273616	40	box	4-hole flange 25.4 mm 4 x Ø 3.4 mm	72



Panel Connectors - Coaxial End

Panel Jack, 4-hole flange

Coaxial End

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks
65 K 401-500 N1	227450	40	box	4-hole flange 25.4 mm 4 x Ø 3.4 mm



Adaptors

Adaptors 4.1-9.5 - 7-16


Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
60 S 165-SIM N1	247770	1	standard	7-16 male - 4.1-9.5 male	
60 S 165-KIM N1	247771	1	standard	7-16 male - 4.1-9.5 female	

Adaptors 4.1-9.5 - N 50 Ω

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
65 S 153-KIM N1	264916	1	standard	4.1-9.5 male - N female	
53 S 165-SIM N1	266929	1	standard	N male - 4.1-9.5 male	

Accessories

Protective Cap

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
65 Z 001-000 N	260112	50	standard	male	

Special Tools

Torque Wrench

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
64 W 021-002	285128	1	standard	4.1-9.5 torque 10 Nm flat 22 mm	