

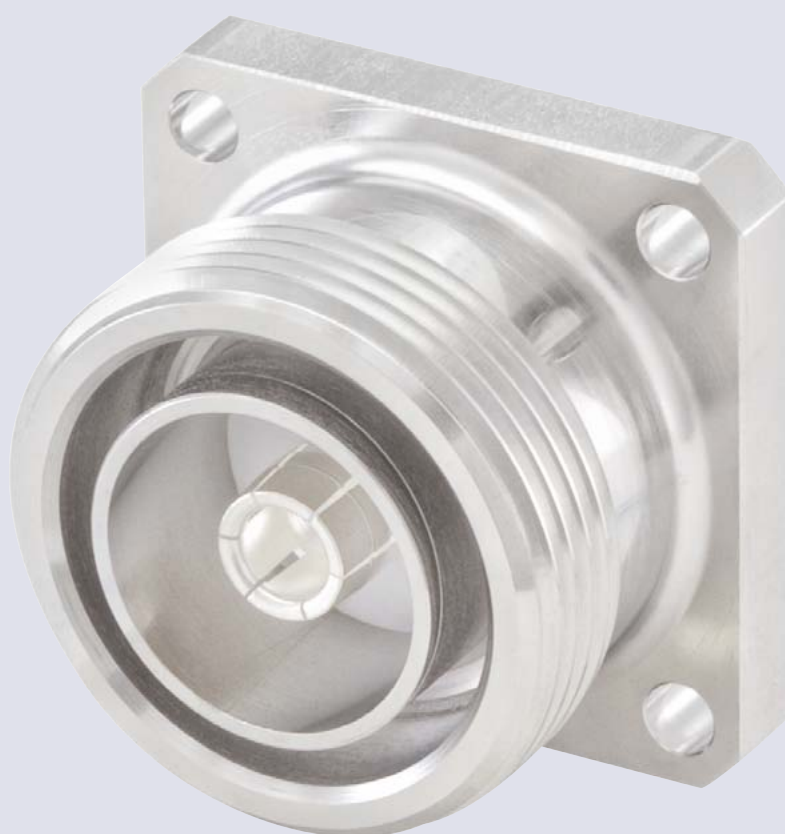
7-16



7-16 coaxial connectors – high-quality coaxial connectors with low attenuation and intermodulation for frequencies up to 8.3 GHz – are suitable for medium to high power transmission in outdoor applications due to their high mechanical stability and best possible weather resistance.

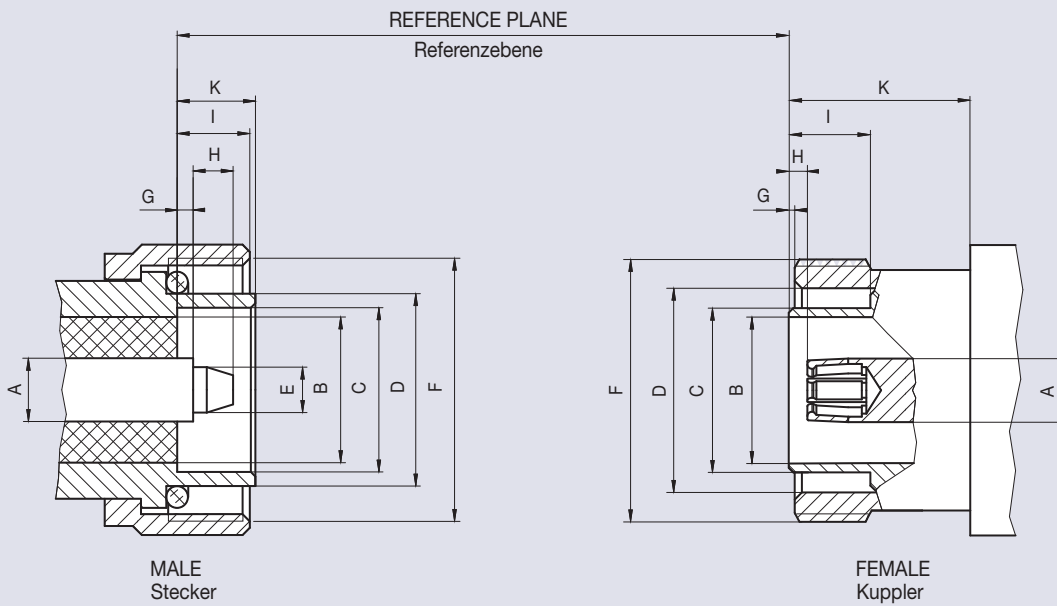
7-16-Koaxial-Steckverbinder - hochwertige, dämpfungs- und intermodulationsarme Koaxialsteckverbinder für Frequenzen bis 8,3 GHz - eignen sich aufgrund hoher mechanischer Stabilität und hervorragender Witterungsbeständigkeit besonders für Anwendungen im Outdoor-Bereich, z.B. für die Übertragung mittlerer bis hoher Leistungen in der Nachrichtentechnik.

7-16



Interface Dimensions 7-16

Code 60



	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A	Ø 7.00 nom.		Ø 7.00 nom.	
B	Ø 15.85	Ø 16.25	Ø 15.85	Ø 16.25
C	Ø 18.03	Ø 18.21	Ø 17.84	Ø 18.02
D	Ø 20.60	Ø 21.40	Ø 22.10	Ø 22.90
E	Ø 4.96	Ø 5.04	-	-
F	M 29 x 1.5		M 29 x 1.5	
G	1.47	1.77	0.50	0.70
H	-	4.50	1.77	2.07
I	7.00	9.00	8.10	-
K	7.00	8.00	10.00	-

Dimensions in mm

¹⁾ Resilient, dimension to meet electrical and mechanical requirements

Features

- ▶ Interface according to IEC 61169-4, EN 122190, DIN 47233
- ▶ Frequency range DC to 7.5 GHz
- ▶ Return loss (cable connector straight) ≥ 21 dB @ 4 GHz
- ▶ Impedance 50 Ω
- ▶ Screw-on coupling

Product Range

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

Technical Data 7-16

Code 60

Applicable standards Anwendbare Normen	
Interface according to Interface gemäß	IEC 61169-4, EN 122190, DIN 47223
Electrical data Elektrische Daten	
Impedance Wellenwiderstand	50 Ω
Frequency range Frequenzbereich	DC to 7.5 GHz
Return loss (cable connector straight) Rückflusdämpfung (Kabelsteckverbinder gerade)	≥ 32 dB @ DC to 0.5 GHz ≥ 21 dB @ 0.5 GHz to 4 GHz ≥ 17 dB @ 4 GHz to 7.5 GHz
Insertion loss Dämpfung	≤ 0.05 x √f (GHz) dB
Insulation resistance Isolationswiderstand	≥ 10 GΩ
Center contact resistance Übergangswiderstand Innenleiter	≤ 0.4 mΩ
Outer contact resistance Übergangswiderstand Außenleiter	≤ 1.5 mΩ
Working voltage Betriebsspannung	500 V rms
Power handling Leistungsbelastbarkeit	1800 W @ 1 GHz 800 W @ 4 GHz
RF leakage - Interface Schirmdämpfung	≥ 128 dB @ DC to 1 GHz
Intermodulation 3rd order Intermodulation 3. Ordnung	≤ -155 dBc (2 x 43 dBm)
Mechanical data Mechanische Daten	
Mating cycles Steckzyklen	≥ 500
Coupling nut retention Überwurfmutter Haltekraft	≥ 1000 N
Center contact captivation Innenleiter Haltekraft	axial: ≥ 200 N radial: ≥ 2 Ncm
Coupling test torque Prüfdrehmoment	≤ 35 Nm
Coupling torque recommended Drehmoment empfohlen	25 Nm to 30 Nm
Pitch Packungsdichte	≥ 32 mm
Environmental data Umweltdaten	
Temperature range Temperaturbereich	-55 °C to +155 °C
Thermal shock Temperaturzyklen	DIN EN 122190, Sub-clause 4.6.7
Damp heat Feuchte Wärme	DIN EN 122190, Sub-clause 4.6.6
Climatic category Klimakategorie	DIN EN 122190, Sub-clause 4.6.5 55/155/56
Degree of protection (mated pair) Schutzgrad (gekoppeltes Paar)	IEC 60529, IP 68
Corrosion resistance Korrosionsbeständigkeit	DIN EN 122190, Sub-clause 4.6.10
Vibration Vibration	DIN EN 122190, Sub-clause 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 / 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.

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	
60 S 131-272 B1	166556	20	box	length 33.1 mm	72	
60 S 137-273 N1	195041	40	box	length 25.2 mm	73	

Panel Jack, 4-hole flange


Semi-Rigid Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
60 K 442-272 N1	261891	20	box	4-hole flange 32 mm 4 x Ø 3.6 mm	72	

Cable Connectors - Flexible Cables


Straight Plug, crimp

Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
60 S 131-806 N1	137986	20	box	06	
60 S 131-815 N1	137437	20	box	15	
60 S 131-817 N1	137628	20	box	16, 17	


Right Angle Plug, solder-crimp

Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
60 S 23B-315 N1	240810	25	standard	15	
60 S 23B-317 N1	240809	25	standard	16, 17	


Straight Jack, crimp

Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
60 K 131-815 N1	137999	25	box	15	
60 K 131-817 N1	137848	25	box	16, 17	

Panel Jack, crimp, 4-hole flange


Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
60 K 431-815 N1	141200	20	box	4-hole flange 32 mm 4 x M3	15	
60 K 431-817 N1	143347	20	box	4-hole flange 32 mm 4 x M3	17	

Panel Connectors - Threaded End

Panel Jack, 4-hole flange

Threaded End


Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
60 K 47U-900 N1	212435	10	box	4-hole flange 32 mm 4 x Ø 3.6 mm center contact thread M3 length 4.0 mm	

Adaptors

Adaptors 7-16 - 7-16

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
60 S 101-SIM N1	277157	1	standard	7-16 male - male	
60 S 101-KIM N1	238467	1	standard	7-16 male - female	
60 K 101-KIM N1	238485	1	standard	7-16 female - female	
60 K 501-K50 N1	141127	1	standard	7-16 female - female round flange	
60 S 231-K00 N1	147266	1	standard	7-16 male - female right angle	

Adaptors 7-16 - QN

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
153Q K 160-S00 N5	204686	1	standard	QN female - 7-16 male	

Adaptors 7-16 - 4.3-10

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 7-16 - 4.-9.5

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 7-16 - N 50 Ω

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
60 S 153-KIM N1	238486	1	standard	7-16 male - N female	
53 S 160-SIM N1	253033	1	standard	N male - 7-16 male	
53 S 160-KIM N1	238488	1	standard	N male - 7-16 female	
53 K 160-KIM N1	263127	1	standard	N female - 7-16 female	



Adaptors 7-16 - QMA

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
28 S 160-S00 N5	160223	1	standard	QMA male - 7-16 male	
28 K 160-S00 N5	159005	1	standard	QMA female - 7-16 male	

Adaptors 7-16 - RPC-N 50 Ω




Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Return Loss	
05 S 160-S50 D3	103182	1	standard	RPC-N 50 Ω male - 7-16 male calibration adaptor	≥ 36 dB @ DC to 4 GHz ≥ 33 dB @ 4 GHz to 8 GHz	
05 S 160-K50 D3	105606	1	standard	RPC-N 50 Ω male - 7-16 female calibration adaptor	≥ 36 dB @ DC to 4 GHz ≥ 33 dB @ 4 GHz to 8 GHz	
05 K 160-S50 D3	101163	1	standard	RPC-N 50 Ω female - 7-16 male calibration adaptor	≥ 36 dB @ DC to 4 GHz ≥ 33 dB @ 4 GHz to 8 GHz	
05 K 160-K50 D3	100708	1	standard	RPC-N 50 Ω female - 7-16 female calibration adaptor	≥ 36 dB @ DC to 4 GHz ≥ 33 dB @ 4 GHz to 8 GHz	

Adaptors 7-16 - SMA




Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
32 S 160-S00 N5	160222	1	standard	SMA male - 7-16 male	
32 K 160-S00 N5	157551	1	standard	SMA female - 7-16 male	

Terminations

Termination Plug

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Return Loss	
60 S 17R-001 N1	143025	1	standard	1 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 2 GHz ≥ 26 dB @ 2 GHz to 8 GHz	
60 S 17R-C01 D3	105519	1	standard	1 Watt Frequency: DC to 8 GHz for calibration kit	≥ 40 dB @ DC to 4 GHz ≥ 36.6 dB @ 4 GHz to 8 GHz	
60 S 15R-002 N1	147009	1	standard	2 Watt Frequency: DC to 3 GHz	≥ 34.1 dB @ DC to 2 GHz ≥ 26 dB @ 2 GHz to 3 GHz	

Termination Jack

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Return Loss	
60 K 17R-001 N1	143026	1	standard	1 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 2 GHz ≥ 26 dB @ 2 GHz to 8 GHz	
60 K 17R-C01 D3	103099	1	standard	1 Watt Frequency: DC to 8 GHz for calibration kit	≥ 40 dB @ DC to 4 GHz ≥ 36.6 dB @ 4 GHz to 8 GHz	
60 K 15R-002 N1	148395	1	standard	2 Watt Frequency: DC to 3 GHz	≥ 34.1 dB @ DC to 2 GHz ≥ 26 dB @ 2 GHz to 3 GHz	

Special Tools

Torque Wrench

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
60 W 000-002	205478	1	standard	7-16 torque 25 Nm flat 32 mm	