



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.

Catalog RosenbergerSLink™

Rosenberger 7-16 connectors for mobilcom applications are also listed in the catalog RosenbergerSLink™: connectors for feeder and jumper cables (1/4" to 1 5/8" in ring or spiral corrugation), lightning protection components, accessories.

The catalog contains the complete product range for mobilcom cabling applications – from the antenna down to the base station.

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.

Katalog RosenbergerSLink™

Rosenberger 7-16-Steckverbinder für Mobilfunk-Anwendungen sind auch im Katalog RosenbergerSLink™ aufgeführt: Steckverbinder für Feeder- und Jumper-Kabel (1/4" bis 1 5/8" in Ring- oder Schraubwellung), Blitzschutz-Komponenten, Zubehör.

Der Katalog enthält das vollständige Produktprogramm zur Verkabelung von Mobilfunkstationen – von der Antenne bis zur Basisstation.

7-16
4.1-9.5

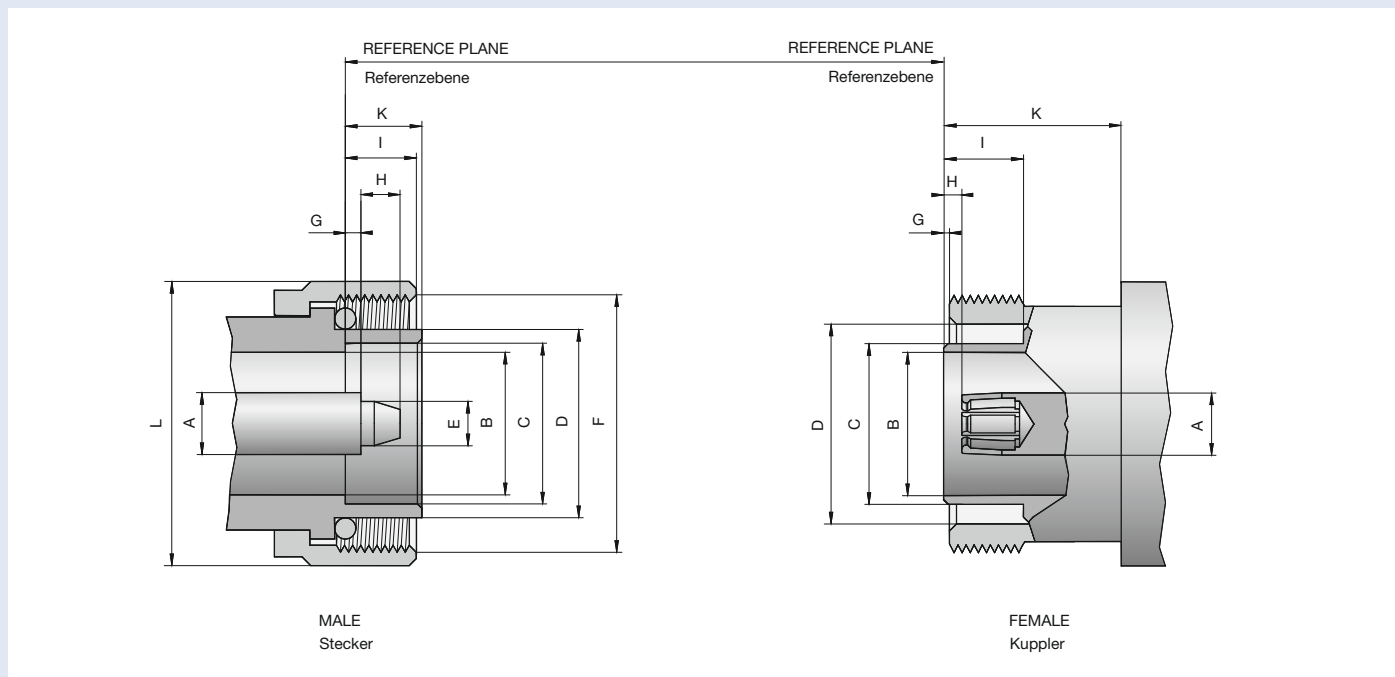


Contents

7-16
4.1-9.5

Interface Dimensions 7-16

Code 60



7-16

dimension [mm]	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A	7.00 nom.		7.00 nom.	
B	15.85	16.25	15.85	16.25
C	18.03	18.21		1)
D	20.60	21.40	22.10	22.90
E	4.96	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	
L	32.00 nom.			

1) resilient, dimension to meet electrical and mechanical requirements

Features

Interface according to IEC 61169-4, ~~VG 95250~~, EN 122190, DIN 47233

Frequency range DC to 8.3 GHz

Return loss (cable connector straight) ≥ 21 dB @ 4 GHz

Impedance 50 Ω

Screw-on coupling

Product Range

Cable connectors

Panel connectors

Surge Arresters

Power Splitter

Adaptors

Terminations

Further connectors are available on request

Technical Data 7-16

Code 60

Applicable standards Anwendbare Normen	
Interface according to <i>Interface gemäß</i>	IEC 61169-4, VG 95250 , EN 122190, DIN 47223
Quality tested according to <i>Qualitätsprüfung gemäß</i>	IEC 60068
Electrical data Elektrische Daten	
Impedance <i>Wellenwiderstand</i>	50 Ω
Frequency range <i>Frequenzbereich</i>	DC to 8.3 GHz
Return loss (cable connector straight) <i>Rückflussdämpfung (Kabelsteckverbinder gerade)</i>	≥ 32 dB @ DC to 0.5 GHz ≥ 21 dB @ 0.5 GHz to 4 GHz ≥ 17 dB @ 4 GHz to 8.3 GHz
Insertion loss <i>Dämpfung</i>	≤ 0.05 x √f(GHz) dB
Insulation resistance <i>Isolationswiderstand</i>	≥ 10 GΩ
Center contact resistance <i>Übergangswiderstand Innenleiter</i>	≤ 0.4 mΩ
Outer contact resistance <i>Übergangswiderstand Außenleiter</i>	≤ 1.5 mΩ
Test voltage <i>Prüfspannung</i>	4000 V rms
Working voltage <i>Betriebsspannung</i>	2700 V rms
Power handling <i>Leistungsbelastbarkeit</i>	1800 W @ 1 GHz 800 W @ 4 GHz
RF-leakage <i>Schirmdämpfung</i>	≥ 128 dB @ DC to 1 GHz
Intermodulation 3rd order <i>Intermodulation 3. Ordnung</i>	≥ 155 dBc (2 x 43 dBm)
Mechanical data Mechanische Daten	
Mating cycles <i>Steckzyklen</i>	≥ 500
Coupling nut retention <i>Überwurfmutter Haltekraft</i>	≥ 1000 N
Center contact captivation <i>Innenleiter Haltekraft</i>	axial: ≥ 200 N radial: ≥ 2 Ncm
Coupling test torque <i>Prüfdrehmoment</i>	≤ 35 Nm
Coupling torque recommended <i>Drehmoment empfohlen</i>	25 Nm to 30 Nm
Environmental data Umweltdaten	
Temperature range <i>Temperaturbereich</i>	-55 °C to +155 °C
Rapid change of temperature <i>Schneller Temperaturwechsel</i>	DIN EN 122190, Sub-clause 4.6.7
Damp heat <i>Feuchte Wärme</i>	DIN EN 122190, Sub-clause 4.6.6
Climatic category <i>Klimakategorie</i>	DIN EN 122190, Sub-clause 4.6.5 (55/155/56)
Degree of protection (mated pair) <i>Schutzgrad (gekoppeltes Paar)</i>	IEC 60529, IP 68
Corrosion resistance <i>Korrosionsbeständigkeit</i>	DIN EN 122190, Sub-clause 4.6.10
Vibration <i>Vibration</i>	DIN EN 122190, Sub-clause 4.6.3
Max. soldering temperature (PCB connectors) <i>Max. Löttemperatur (Leiterplattensteckverbinder)</i>	IEC 61760-1, +260 °C for 10 sec.
Materials Materialien	
Spring loaded contact parts <i>Federnde Kontaktteile</i>	CuSn, Ag plating
Center contact <i>Innenleiter</i>	CuZn, Ag plating
Outer contact <i>Außenleiter</i>	CuZn, Ag / white bronze plating
Crimping ferrule <i>Crimphülse</i>	Copper alloy, white bronze plating
Dielectric <i>Dielektrikum</i>	PP / PS / PTFE
Gasket <i>Dichtung</i>	Rubber

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 Cables

Straight Plug, solder

Semi-Rigid Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Packing Unit	
60 S 131-272 B1	a = 33.1 mm; b = \varnothing 3.8 mm	72	60 S21	20	
60 S 132-273 B1	a = 37.3 mm; b = \varnothing 6.5 mm	73	60 S30	20	

Panel Jack, 4-hole flange

Semi-Rigid Cables

Ordering Number	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	
60 K 40B-272 B1	72	60 E9	B 46b	20	

Panel Jack, solder, round flange

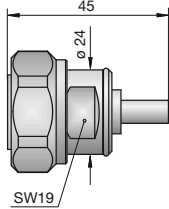
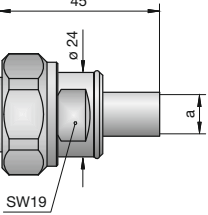
Semi-Rigid Cables

Ordering Number	Version	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	
60 K 552-273 B1	rear mount	73	60 E2	B 75	20	

Cable Connectors - Flexible Cables

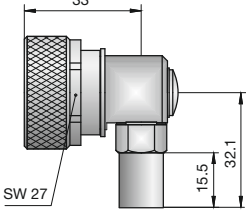
Straight Plug, crimp

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Crimp Inserts	Packing Unit	
60 S 131-806 N1		06	53 O13	11 W 150-208	60	
60 S 131-815 N1	a = Ø 10.7 mm	15	53 O3	11 W 150-215	20	
60 S 131-817 N1	a = Ø 11.2 mm	16, 17	53 O4	11 W 150-215	20	

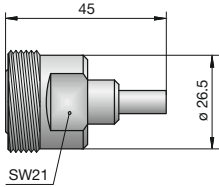
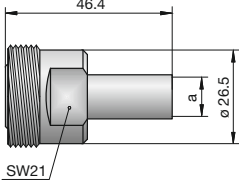
Right Angle Plug, solder-crimp

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Crimp Inserts	Packing Unit	
60 S 251-315 N1	15	60 H2	11 W 150-115	20	
60 S 251-317 N1	16, 17	60 H2	11 W 150-115	20	

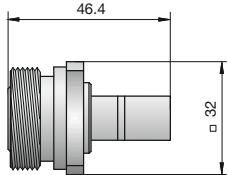
Straight Jack, crimp

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Crimp Inserts	Packing Unit	
60 K 131-806 N1		06	53 O13	11 W 150-208	20	
60 K 131-815 N1	a = Ø 10.7 mm	15	53 O4	11 W 150-215	20	
60 K 131-817 N1	a = Ø 11.2 mm	16, 17	53 O4	11 W 150-215	20	

Panel Jack, crimp, 4-hole flange

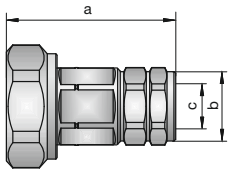
Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Crimp Inserts	Packing Unit	
60 K 431-815 N1	4 x M3	15	53 O4	B 46	11 W 150-215	20	
60 K 431-817 N1	4 x M3	17	53 O4	B 46	11 W 150-215	20	

Cable Connectors - Corrugated Cables - JacSeal+

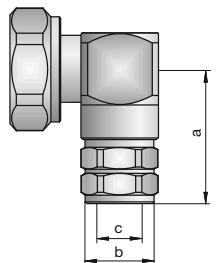
Straight Plug

JacSeal+

Ordering Number	Version	Remarks	Cable Type	Assembly Instruction	Packing Unit	
60 S 117-C03 N1	Ring	a = 48.0 mm; b \varnothing = 20.0 mm; c \varnothing = 16.5 mm	1/2" R	60 I37	1	 <p>e.g. 60S117-C03</p>
60 S 117-C08 N1	Spiral	a = 50.0 mm; b \varnothing = 20.0 mm; c \varnothing = 14.0 mm	1/2" S	60 I38	1	
60 S 117-C05 N1	Ring	a = 44.0 mm; b \varnothing = 36.0 mm; c \varnothing = 28.3 mm	7/8" R	60 I36	1	
60 S 117-C06 N1	Ring	a = 71.9 mm; b \varnothing = 47.0 mm; c \varnothing = 39.9 mm	1 1/4" R	60 I41	1	
60 S 117-C07 N1	Ring	a = 83.0 mm; b \varnothing = 58.0 mm; c \varnothing = 50.6 mm	1 5/8" R	60 I42	1	

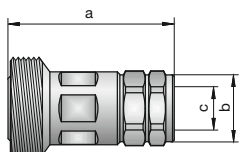
Right Angle Plug

JacSeal+

Ordering Number	Version	Remarks	Cable Type	Assembly Instruction	Packing Unit	
60 S 217-C03 N1	Spiral	a = 33.8 mm; b \varnothing = 20.0 mm; c \varnothing = 16.5 mm	1/2" S	60 I37	1	 <p>e.g. 60S2C7-C03</p>
60 S 217-C08 N1	Spiral	a = 37.2 mm; b \varnothing = 20.0 mm; c \varnothing = 14.0 mm	1/2" S	60 I38	1	

Straight Jack

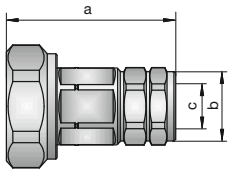
JacSeal+

Ordering Number	Version	Remarks	Cable Type	Assembly Instruction	Packing Unit	
60 K 117-C03 N1	Ring	a = 50.0 mm; b \varnothing = 20.0 mm; c \varnothing = 16.5 mm	1/2" R	60 I37	1	 <p>e.g. 60K117-C03</p>
60 K 117-C08 N1	Spiral	a = 52.0 mm; b \varnothing = 20.0 mm; c \varnothing = 14.0 mm	1/2" S	60 I38	1	
60 K 117-C05 N1	Ring	a = 40.7 mm; b \varnothing = 36.0 mm; c \varnothing = 28.3 mm	7/8" R	60 I36	1	
60 K 117-C06 N1	Ring	a = 71.75 mm; b \varnothing = 47.0 mm; c \varnothing = 39.9 mm	1 1/4" R	60 I41	1	
60 K 117-C07 N1	Ring	a = 82.4 mm; b \varnothing = 58.0 mm; c \varnothing = 50.6 mm	1 5/8" R	60 I42	1	

Cable Connectors - Corrugated Cables - JacSeal

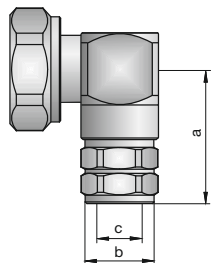
Straight Plug

JacSeal

Ordering Number	Version	Remarks	Cable Type	Assembly Instruction	Packing Unit	
60 S 1C7-C03 N1	Ring	a = 48.7 mm; b \varnothing = 20.0 mm; c \varnothing = 16.5 mm	1/2" R	1C7-C03	1	 <p>e.g. 60S1C7-C03</p>
60 S 1C7-C08 N1	Spiral	a = 52.7 mm; b \varnothing = 20.0 mm; c \varnothing = 14.0 mm	1/2" S	1C7-C08	1	
60 S 1C7-C05 N1	Ring	a = 44.0 mm; b \varnothing = 36.0 mm; c \varnothing = 28.3 mm	7/8" R	60 I36	1	
60 S 1C7-C06 N1	Ring	a = 69.7 mm; b \varnothing = 44.3 mm; c \varnothing = 39.6 mm	1 1/4" R	60 I39	1	
60 S 1C7-C07 N1	Ring	a = 78.2 mm; b \varnothing = 55.8 mm; c \varnothing = 50.6 mm	1 5/8" R	60 I40	1	

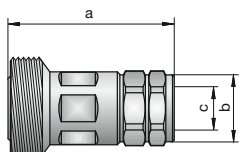
Right Angle Plug

JacSeal

Ordering Number	Version	Remarks	Cable Type	Assembly Instruction	Packing Unit	
60 S 2C7-C03 N1	Ring	a = 37.9 mm; b \varnothing = 20.0 mm; c \varnothing = 16.5 mm	1/2" R	1C7-C03	1	 <p>e.g. 60S2C7-C03</p>
60 S 2C7-C08 N1	Spiral	a = 36.95 mm; b \varnothing = 20.0 mm; c \varnothing = 14.0 mm	1/2" S	1C7-C08	1	

Straight Jack

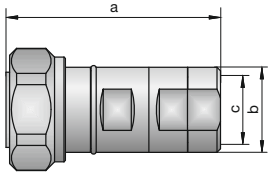
JacSeal

Ordering Number	Version	Remarks	Cable Type	Assembly Instruction	Packing Unit	
60 K 1C7-C03 N1	Ring	a = 56.2 mm; b \varnothing = 20.0 mm; c \varnothing = 16.5 mm	1/2" R	1C7-C03	1	 <p>e.g. 60K1C7-C03</p>
60 K 1C7-C08 N1	Spiral	a = 51.5 mm; b \varnothing = 20.0 mm; c \varnothing = 14.0 mm	1/2" S	1C7-C08	1	
60 K 1C7-C05 N1	Ring	a = 40.7 mm; b \varnothing = 36.0 mm; c \varnothing = 28.3 mm	7/8" R	60 I36	1	
60 K 1C7-C06 N1	Ring	a = 70.5 mm; b \varnothing = 44.3 mm; c \varnothing = 39.6 mm	1 1/4" R	60 I39	1	
60 K 1C7-C07 N1	Ring	a = 75.7 mm; b \varnothing = 55.8 mm; c \varnothing = 50.6 mm	1 5/8" R	60 I40	1	

Cable Connectors - Corrugated Cables - CorSeal

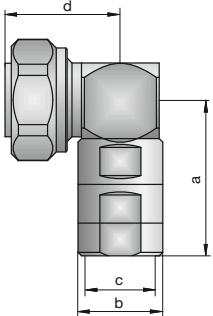
Straight Plug

CorSeal

Ordering Number	Version	Remarks	Cable Type	Assembly Instruction	Packing Unit	
60 S 115-C01 N1	Ring	a = 53.5 mm; b \varnothing = 24 mm; c \varnothing = 9.3 mm	1/4" R	60 I30	1	 <p>e.g. 60S115-C03</p>
60 S 115-C09 N1	Spiral	a = 53.5 mm; b \varnothing = 20 mm; c \varnothing = 8.5 mm	1/4" S	60 I23	1	
60 S 115-C02 N1	Spiral	a = 66 mm; b \varnothing = 24 mm; c \varnothing = 11 mm	3/8" S	60 I28	1	
60 S 115-C03 N1	Ring	a = 61 mm; b \varnothing = 24 mm; c \varnothing = 16.5 mm	1/2" R	60 I18	1	
60 S 115-C08 N1	Spiral	a = 65.1 mm; b \varnothing = 24 mm; c \varnothing = 14.2 mm II. Generation	1/2" S	60 I35	1	
60 S 115-C05 N1	Ring	a = 75 mm; b \varnothing = 35 mm; c \varnothing = 28.5 mm	7/8" R	60 I25	1	
60 S 115-C06 N1	Ring	a = 95 mm; b \varnothing = 52 mm; c \varnothing = 40 mm	1 1/4" R	60 I26	1	
60 S 115-C07 N1	Ring	a = 104 mm; b \varnothing = 63 mm; c \varnothing = 51.6 mm	1 5/8" R	60 I29	1	

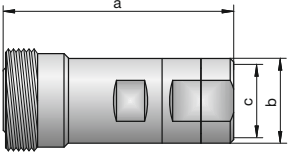
Right Angle Plug

CorSeal

Ordering Number	Version	Remarks	Cable Type	Assembly Instruction	Packing Unit	
60 S 215-C01 N1	Ring	a = 39.0 mm; b \varnothing = 24.0 mm; c \varnothing = 9.3 mm; d \varnothing = 37.0 mm	1/4" R	60 I30	1	 <p>e.g. 60S215-C03</p>
60 S 215-C09 N1	Spiral	a = 37.0 mm; b \varnothing = 20.0 mm; c \varnothing = 8.5 mm; d \varnothing = 31.0 mm	1/4" S	60 I23	1	
60 S 215-C02 N1	Spiral	a = 49.8 mm; b \varnothing = 24.0 mm; c \varnothing = 11.0 mm; d \varnothing = 37.2 mm	3/8" S	60 I28	1	
60 S 215-C03 N1	Ring	a = 44.3 mm; b \varnothing = 24.0 mm; c \varnothing = 16.5 mm; d \varnothing = 33.0 mm	1/2" R	60 I18	1	
60 S 215-C08 N1	Spiral	a = 48.9 mm; b \varnothing = 24.0 mm; c \varnothing = 14.2 mm; d \varnothing = 36.0 mm II. Generation	1/2" S	60 I35	1	
60 S 215-C05 N1	Ring	a = 68.0 mm; b \varnothing = 35.0 mm; c \varnothing = 28.5 mm; d \varnothing = 32.2 mm	7/8" R	60 I25	1	

Straight Jack

CorSeal

Ordering Number	Version	Remarks	Cable Type	Assembly Instruction	Packing Unit	
60 K 115-C01 N1	Ring	a = 55.5 mm; b \varnothing = 24.0 mm; c \varnothing = 9.3 mm	1/4" R	60 I30	1	 <p>e.g. 60K115-C03</p>
60 K 115-C09 N1	Spiral	a = 55.1 mm; b \varnothing = 20.0 mm; c \varnothing = 8.5 mm	1/4" S	60 I23	1	
60 K 115-C02 N1	Spiral	a = 67.0 mm; b \varnothing = 24.0 mm; c \varnothing = 11.0 mm	3/8" S	60 I28	1	
60 K 115-C03 N1	Ring	a = 62.6 mm; b \varnothing = 24.0 mm; c \varnothing = 16.5 mm	1/2" R	60 I18	1	
60 K 115-C08 N1	Spiral	a = 65.1 mm; b \varnothing = 24.0 mm; c \varnothing = 14.2 mm II. Generation	1/2" S	60 I35	1	
60 K 115-C05 N1	Ring	a = 77.0 mm; b \varnothing = 35.0 mm; c \varnothing = 28.5 mm	7/8" R	60 I25	1	
60 K 115-C06 N1	Ring	a = 101.0 mm; b \varnothing = 52.0 mm; c \varnothing = 40.0 mm	1 1/4" R	60 I26	1	
60 K 115-C07 N1	Ring	a = 110.0 mm; b \varnothing = 63.0 mm; c \varnothing = 51.6 mm	1 5/8" R	60 I29	1	

Panel Connectors - Solder End

Panel Plug, 4-hole flange

Solder End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
60 S 451-200 N1	4 x \varnothing 3.6 mm	B 46	20	

Panel Jack, 4-hole flange

Solder End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
60 K 458-200 N1	4 x \varnothing 3.6 mm	B 46	40	

Panel Connectors - Threaded End

Panel Jack, 4-hole flange

Threaded End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
60 K 453-900 B1	4 x \varnothing 3.6 mm; center contact thread M3; thread length 3.1 mm	B 46	40	
60 K 451-500 N1	4 x \varnothing 3.6 mm; center contact thread M3; thread length 3.1 mm	B 46	40	

Surge Arresters

Wideband Surge Arrester

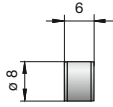
Ordering Number	Version	Remarks	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	
60 HS 161-S00 N1	male - male	800 MHz to 2500 MHz grounded center contact			1	
60 HK 165-S00 N1		698 MHz to 2700 MHz			1	
60 HK 565-S00 N1	female - male	698 MHz to 2700 MHz		B 75	1	
60 HK 565-K00 N1	female - female	698 MHz to 2700 MHz		B 75	1	
60 HK 566-S00 N1	female - female	698 MHz to 2700 MHz	53 MV-A001	B 75	1	

Ordering Number	Version	Remarks	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	
60 HS 152-K00 N1	male - female	800 MHz to 2500 MHz grounded center contact		B 75	1	
60 HK 152-S00 N1	female - male	800 MHz to 2500 MHz grounded center contact		B 75	1	
60 HK 152-K00 N1	female - female	800 MHz to 2500 MHz grounded center contact		B 75	1	

Wideband Surge Arrester with GDT

Ordering Number	Version	Remarks	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	
60 BK 561-S00 N1	female - male	800 MHz to 2500 MHz discharge tube 90 V included	60 X02	B 75	1	<p>86.6 21.6 90 SW32 SW32 reduced scale</p>
60 BK 561-K00 N1	female - female	800 MHz to 2500 MHz discharge tube 90 V included	60 X02	B 75	1	<p>88 21.6 90 SW32 reduced scale</p>
60 BK 531-S00 N1	female - male	DC to 2200 MHz discharge tube 350 V included	60 X02	B 75	1	<p>75.6 21.6 SW 32</p>
60 BK 531-K00 N1	female - female	DC to 2200 MHz discharge tube 350 V included	60 X02	B 75	1	<p>77 21.6 SW 32</p>
60 BK 566-Sxxx N1	female - male	698 MHz to 2700 MHz discharge tube included xxx: please fill in requested GDT	53 MV-A001	B 75	1	<p>125.8 60.7 hex 32 hex 32 reduced scale</p>

Gas Discharge Tube

Ordering Number	Remarks	Packing Unit	
53 Z B01-090	Nom. spark-over voltage 90 V	1	
53 Z B01-230	Nom. spark-over voltage 230 V	1	
53 Z B01-350	Nom. spark-over voltage 350 V	1	

Power Splitter - Wideband

Power Splitter

Wideband

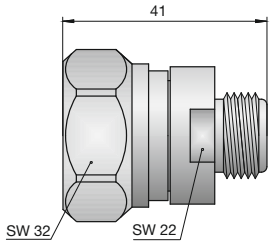
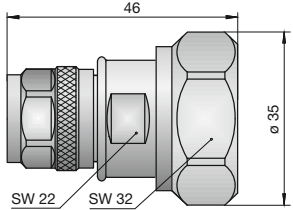
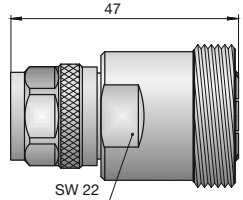
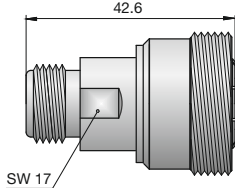
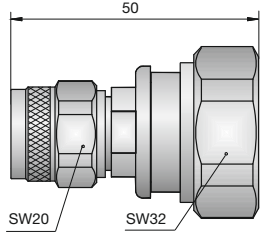
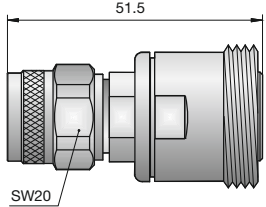
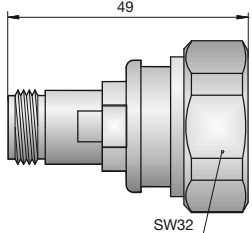
Ordering Number	Version	Remarks	Packing Unit	
60 PK 12B-K00 N1	2-way	Return loss: ≥ 26 dB @ 800 MHz to 2.2 GHz Power max: 1000 W	1	
60 PK 13B-K00 N1	3-way	Return loss: ≥ 26 dB @ 800 MHz to 2.2 GHz Power max: 1000 W	1	
60 PK 14B-K00 N1	4-way	Return loss: ≥ 26 dB @ 800 MHz to 2.2 GHz Power max: 1000 W	1	

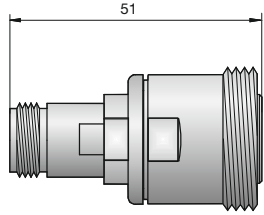
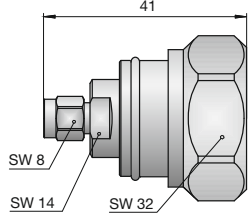
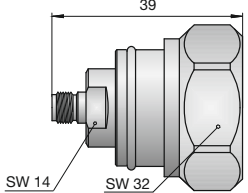
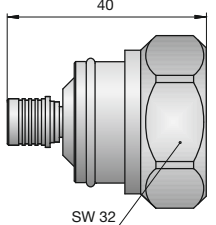
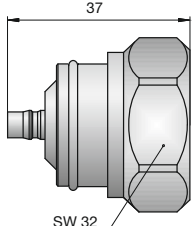
Adaptors

Adaptors (In Series)

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
60 S 101-S50 N1	straight	7-16 male - male		1	
60 S 101-K50 N1	straight	7-16 male - female		1	
60 K 101-K50 N1	straight	7-16 female - female		1	
60 K 501-K50 N1	straight panel	7-16 female - female round flange	B 84	1	
60 S 231-K00 N1	right angle	7-16 male - female		1	

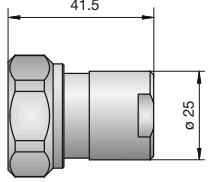
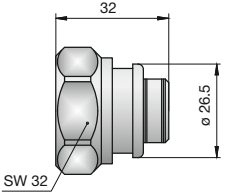
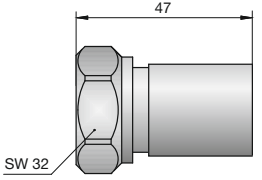
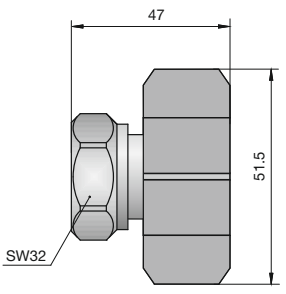
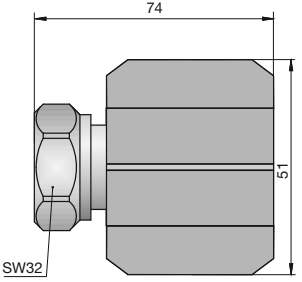
Adaptors (Inter Series)

Ordering Number	Version	Remarks	Return Loss	Packing Unit	
60 S 153-K50 N1	straight	7-16 male - N female		1	
53 S 160-S50 N1	straight	N male - 7-16 male		1	
53 S 160-K50 N1	straight	N male - 7-16 female		1	
53 K 160-K50 N1	straight	N female - 7-16 female		1	
05 S 160-S50 D3	straight	RPC-N 50 Ω male - 7-16 male, calibration adaptor	≥ 36.6 dB @ DC to 8 GHz	1	
05 S 160-K50 D3	straight	RPC-N 50 Ω male - 7-16 female, calibration adaptor	≥ 36.6 dB @ DC to 8 GHz	1	
05 K 160-S50 D3	straight	RPC-N 50 Ω female - 7-16 male, calibration adaptor	≥ 36.6 dB @ DC to 8 GHz	1	

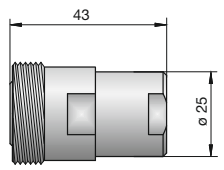
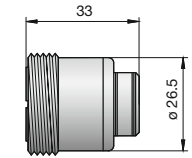
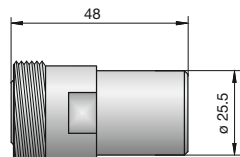
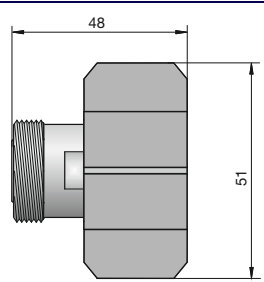
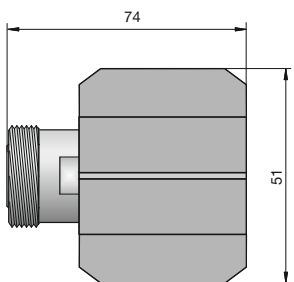
Ordering Number	Version	Remarks	Return Loss	Packing Unit	
05 K 160-K50 D3	straight	RPC-N 50 Ω female - 7-16 female, calibration adaptor	≥ 36.6 dB @ DC to 8 GHz	1	
32 S 160-S00 N5	straight	SMA male - 7-16 male		1	
32 K 160-S00 N5	straight	SMA female - 7-16 male		1	
28 S 160-S00 N5	straight	QMA male - 7-16 male		1	
28 K 160-S00 N5	straight	QMA female - 7-16 male		1	

Terminations

Termination Plug

Ordering Number	Remarks	Return Loss	Packing Unit	
60 S 17R-001 N1	1 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 2 GHz ≥ 26 dB @ 2 GHz to 8 GHz	1	
60 S 17R-C01 D3	1 Watt Frequency: DC to 8 GHz for calibration kit	≥ 40 dB @ DC to 4 GHz ≥ 36.6 dB @ 4 GHz to 8 GHz	1	
60 S 15R-002 N1	2 Watt Frequency: DC to 2 GHz	≥ 34.1 dB @ DC to 2 GHz	1	
60 S 15R-005 N1	5 Watt Frequency: DC to 2 GHz	≥ 20.8 dB @ DC to 2 GHz	1	
60 S 17R-005 N1	5 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 1 GHz ≥ 30.7 dB @ 1 GHz to 2 GHz ≥ 20 dB @ 2 GHz to 8 GHz	1	
60 S 17R-010 N1	10 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 1 GHz ≥ 30.7 dB @ 1 GHz to 2 GHz ≥ 20 dB @ 2 GHz to 8 GHz	1	
60 S 15R-020 N1	20 Watt Frequency: DC to 2 GHz	≥ 20.8 dB @ DC to 2 GHz	1	
60 S 17R-020 N1	20 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 1 GHz ≥ 30.7 dB @ 1 GHz to 2 GHz ≥ 20 dB @ 2 GHz to 8 GHz	1	

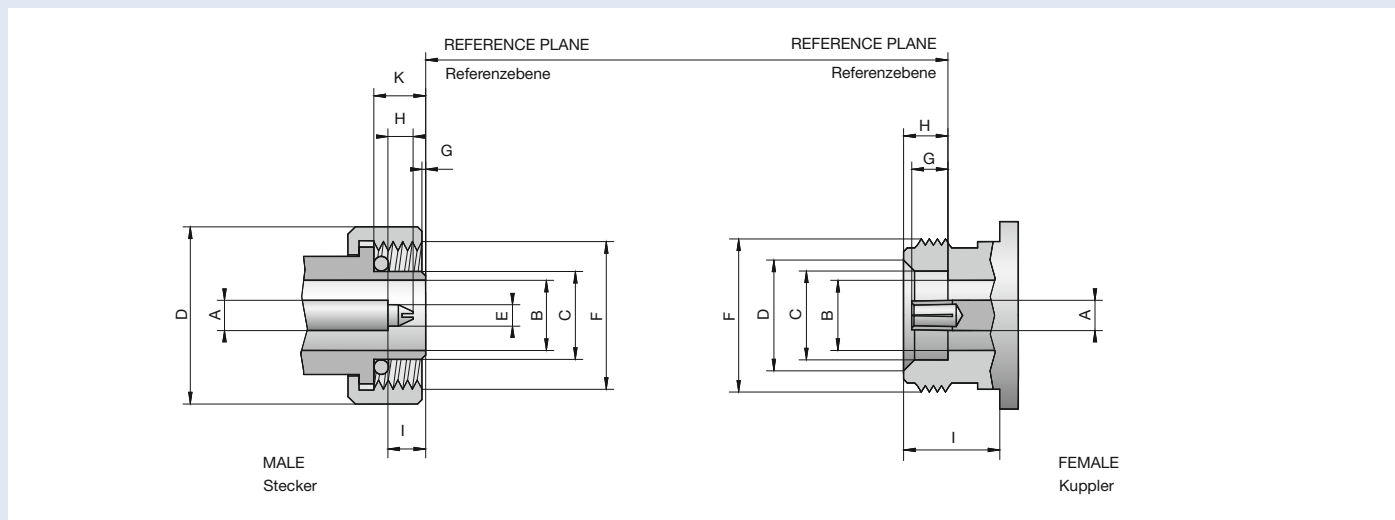
Termination Jack

Ordering Number	Remarks	Return Loss	Packing Unit	
60 K 17R-001 N1	1 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 2 GHz ≥ 26 dB @ 2 GHz to 8 GHz	1	
60 K 17R-C01 D3	1 Watt Frequency: DC to 8 GHz for calibration kit	≥ 40 dB @ DC to 4 GHz ≥ 36.6 dB @ 4 GHz to 8 GHz	1	
60 K 15R-002 N1	2 Watt Frequency: DC to 2 GHz	≥ 34.1 dB @ DC to 2 GHz	1	
60 K 15R-005 N1	5 Watt Frequency: DC to 2 GHz	≥ 20.8 dB @ DC to 2 GHz	1	
60 K 17R-005 N1	5 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 1 GHz ≥ 30.7 dB @ 1 GHz to 2 GHz ≥ 20 dB @ 2 GHz to 8 GHz	1	
60 K 17R-010 N1	10 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 1 GHz ≥ 30.7 dB @ 1 GHz to 2 GHz ≥ 20 dB @ 2 GHz to 8 GHz	1	
60 K 15R-020 N1	20 Watt Frequency: DC to 2 GHz	≥ 20.8 dB @ DC to 2 GHz	1	
60 K 17R-020 N1	20 Watt Frequency: DC to 8 GHz	≥ 34.1 dB @ DC to 1 GHz ≥ 30.7 dB @ 1 GHz to 2 GHz ≥ 20 dB @ 2 GHz to 8 GHz	1	

Special Tools for Series 7-16 please see chapter Tools

Interface Dimensions 4.1-9.5

Code 65



4.1-9.5

dimension [mm]	Male Stecker		Female Kuppler	
	min.	max.	min.	max.
A	4.13 nom.		4.13 nom.	
B	9.40	9.60	9.40	9.60
C	11.84	12.02	12.03	12.21
D	24.00 nom.		14.90	15.00
E	2.855	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)			

1) resilient, 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, ~~VG 95277~~, DIN 47231

Frequency range DC to 10 GHz

Return loss (cable connector straight) ≥ 23 dB @ 4 GHz

Impedance 50 Ω

Screw-on coupling

Product Range

Cable connectors

Panel connectors

Adaptors

Connectors are available on request.

Technical Data 4.1 - 9.5

Code 65

Applicable standards Anwendbare Normen	
Interface according to <i>Interface gemäß</i>	IEC 60169-11, VG-95277 , DIN 47231
Quality tested according to <i>Qualitätsprüfung gemäß</i>	MIL-STD-202
Electrical data Elektrische Daten	
Impedance <i>Wellenwiderstand</i>	50 Ω
Frequency range <i>Frequenzbereich</i>	DC to 10 GHz
Return loss (cable connector straight) <i>Rückflussdämpfung (Kabelsteckverbinder gerade)</i>	≥ 30 dB @ DC to 0.5 GHz ≥ 23 dB @ 0.5 GHz to 4 GHz ≥ 20 dB @ 4 GHz to 10 GHz
Insertion loss <i>Dämpfung</i>	≤ 0.05 x √f(GHz) dB
Insulation resistance <i>Isolationswiderstand</i>	≥ 10 GΩ
Center contact resistance <i>Übergangswiderstand Innenleiter</i>	≤ 0.4 mΩ
Outer contact resistance <i>Übergangswiderstand Außenleiter</i>	≤ 1.5 mΩ
Test voltage <i>Prüfspannung</i>	3000 V rms
Working voltage <i>Betriebsspannung</i>	500 V rms
Power handling <i>Leistungsbelastbarkeit</i>	1000 W @ 2 GHz
RF-leakage <i>Schirmdämpfung</i>	≥ 128 dB @ DC to 1 GHz
Intermodulation 3rd order <i>Intermodulation 3. Ordnung</i>	≥ 158 dBc (2 x 43 dBm)
Mechanical data Mechanische Daten	
Mating cycles <i>Steckzyklen</i>	≥ 500
Coupling torque recommended <i>Drehmoment empfohlen</i>	17 Nm to 22 Nm
Environmental data Umweltdaten	
Temperature range <i>Temperaturbereich</i>	-65 °C to +85 °C
Climatic category <i>Klimakategorie</i>	IEC 60068 65/85/21
Corrosion resistance <i>Korrosionsbeständigkeit</i>	MIL-STD-202, Method 101, Condition D
Vibration <i>Vibration</i>	MIL-STD-202, Method 204, Condition B
Shock <i>Schock</i>	MIL-STD-202, Method 213, Condition G
Max. soldering temperature (PCB connectors) <i>Max. Löttemperatur (Leiterplattensteckverbinder)</i>	IEC 61760-1, +260 °C for 10 sec.
Materials Materialien	
Spring loaded contact parts <i>Federnde Kontaktteile</i>	CuBe, Ag plating
Center contact <i>Innenleiter</i>	CuZn, Ag plating
Outer contact <i>Außenleiter</i>	CuZn, Ag plating
Crimping ferrule <i>Crimphülse</i>	Copper alloy, Ag plating
Dielectric <i>Dielektrikum</i>	PP / PS / PTFE
Gasket <i>Dichtung</i>	Rubber

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.

Connectors are available on request.

Steckverbinder auf Anfrage erhältlich.