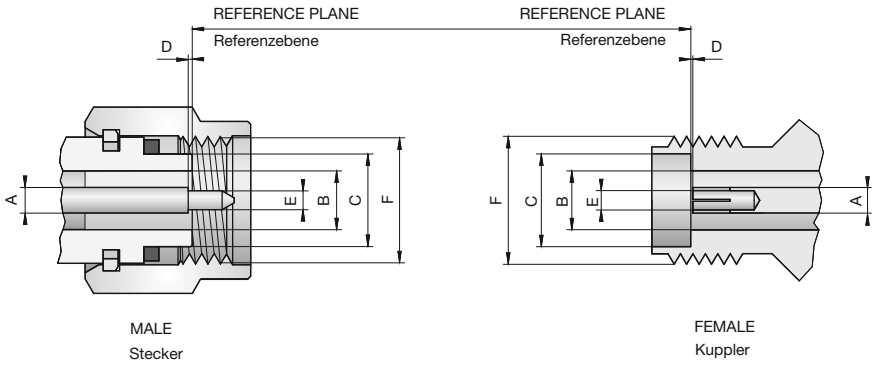
Interface Dimensions Series RPC-3.50 (code 03)



Series RPC-3.50

	Male | *Stecker*		Female | *Kuppler*	
dimension	min.	max.	min.	max.
A	1.51	1.53	1.51	1.53
B	3.49	3.51	3.49	3.51
C	4.57	4.59	4.63	4.65
D	0.00	0.08	0.00	0.08
E	0.91	0.93	0.96	0.98
F	1/4-36UNS-2B		1/4-36UNS-2A	

Technical Data Series RPC-3.50

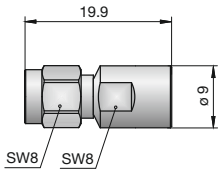
Applicable standards | *Anwendbare Standards*	
Interface according to | *Interface gemäß*	IEC 60169-23
Mechanically compatible with | *Mechanisch kompatibel mit*	RPC-2.92 and SMA
Electrical data | *Elektrische Daten*	
Impedance | *Wellenwiderstand*	50 Ω
Frequency range | *Frequenzbereich*	DC to 26.5 GHz
Return loss (connector head) | *Rückflußdämpfung (Steckerkopf)*	≥ 30 dB, DC to 26.5 GHz
Insertion loss (connector head) | *Dämpfung (Steckerkopf)*	≤ 0.03 dB x |f[GHz]
Insulation resistance | *Isolationswiderstand*	≥ 5 GΩ
Center contact resistance | *Übergangswiderstand Innenleiter*	≤ 3.0 mΩ
Outer contact resistance | *Übergangswiderstand Außenleiter*	≤ 2.0 mΩ
Test voltage | *Prüfspannung*	1000 V rms
Working voltage | *Betriebsspannung*	335 V rms
RF-leakage | *Schirmdämpfung*	≥ 100 dB up to 1 GHz
Mechanical data | *Mechanische Daten*	
Mating cycles | *Steckzyklen*	≥ 500
Center contact captivation | *Innenleiter Haltekraft*	≥ 27 N
Coupling torque recommended | *Anzugsdrehmoment empfohlen*	0.80 Nm to 1.10 Nm
Coupling test torque | *Prüfdrehmoment*	1.70 Nm
Environmental data | *Umweltdaten*	
Temperature range | *Temperaturbereich*	-40 °C to +85 °C
Thermal shock | *Temperaturzyklen*	MIL-STD 202, Method 107, Condition B
Corrosion resistance | *Korrosionsbeständigkeit*	MIL-STD 202, Method 101, Condition B
Vibration | *Vibration*	MIL-STD 202, Method 204, Condition D
Shock | *Schock*	MIL-STD 202, Method 213, Condition I
Moisture resistance | *Feuchtigkeitsbeständigkeit*	MIL-STD 202, Method 106
Max. soldering temperature | *Maximale Löttemperatur*	IEC 61760-1, +260 °C for 10 sec.
Materials | *Materialien*	
Center contact | *Innenleiter*	Beryllium copper, gold-plated
Outer contact | *Außenleiter*	Stainless steel, passivated
Dielectric | *Dielektrikum*	PS
Gasket | *Dichtung*	Silicone

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.

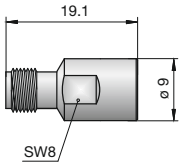
Rosenberger-Steckverbinder erfüllen grundsätzlich die in den Technischen Daten angegebenen Daten. Je nach Anwendung, Bauart, Kabeltyp, Montageart und -ausführung können einzelne Werte von Steckverbindern hiervon abweichen. Spezifische Datenblätter zu einzelnen Produkten erhalten Sie auf Anfrage von Ihrem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

Connector Heads

Straight Plug

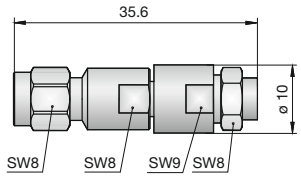
Ordering Number	Remarks	Return Loss	
03 S 121-000 S3	with bead	≥ 30 dB @ DC to 26.5 GHz	

Straight Jack

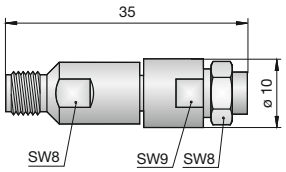
Ordering Number	Remarks	Return Loss	
03 K 121-000 S3	with bead	≥ 30 dB @ DC to 26.5 GHz	

Cable Connectors Semi-Rigid Cable

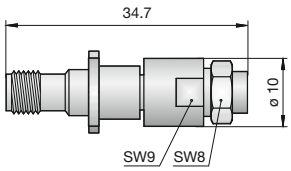
Straight Plug, solder — Semi-Rigid

Ordering Number	Return Loss	Cable Group	Assembly Instruction	
03 S 121-271 S3	≥ 25 dB @ DC to 26.5 GHz	71	02 A3	
03 S 121-272 S3	≥ 25 dB @ DC to 26.5 GHz	72	03 A	

Straight Jack, solder — Semi-Rigid

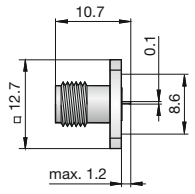
Ordering Number	Return Loss	Cable Group	Assembly Instruction	
03 K 121-271 S3	≥ 25 dB @ DC to 26.5 GHz	71	02 A3	
03 K 121-272 S3	≥ 25 dB @ DC to 26.5 GHz	72	03 A	

Panel Jack, 4-hole flange — Semi-Rigid

Ordering Number	Return Loss	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	
03 K 421-271 S3	≥ 25 dB @ DC to 26.5 GHz	71	02 A3	MB 55	

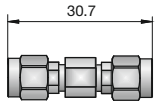
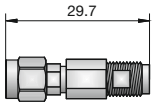
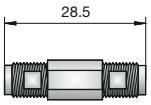
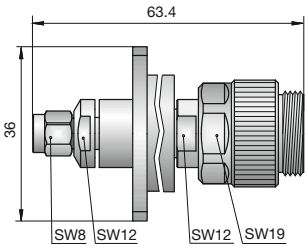
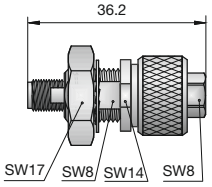
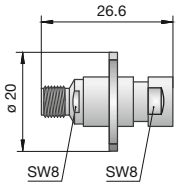
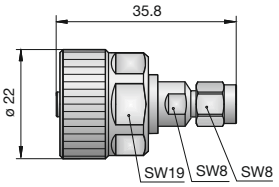
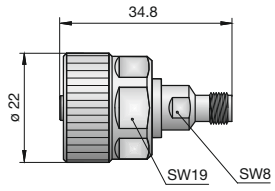
Panel Connectors Stripline

Panel Jack, 4-hole flange — Stripline

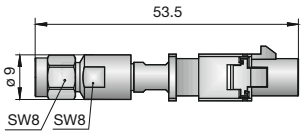
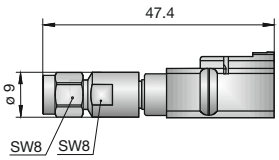
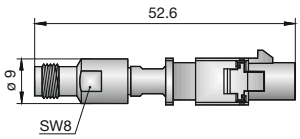
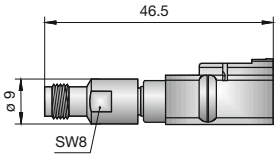
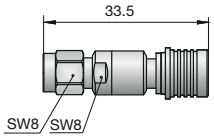
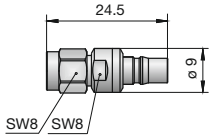
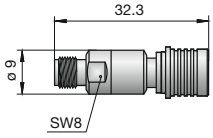
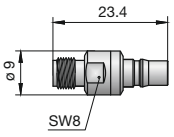
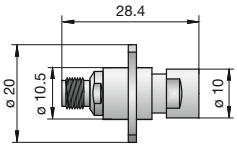
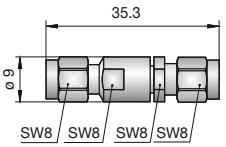
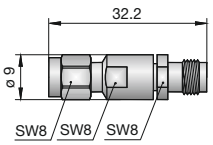
Ordering Number	Remarks	Return Loss	Panel Piercing / PCB Layout	
03 K 421-600 S3	stripline	≥ 23 dB @ DC to 26.5 GHz	MB 55d	

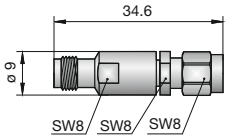
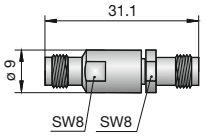
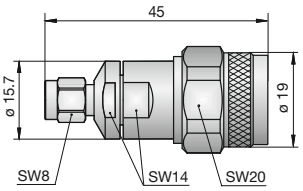
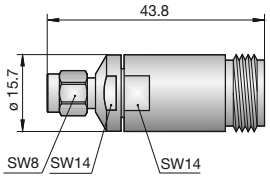
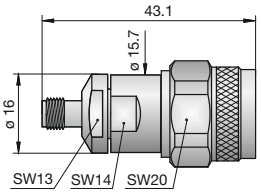
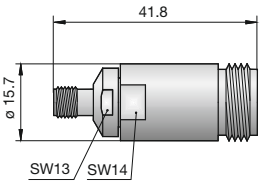
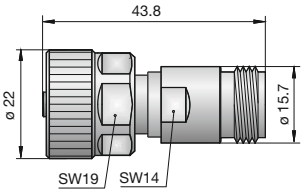
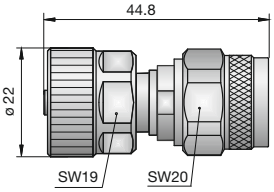
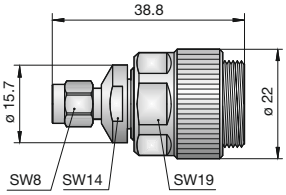
Adaptors

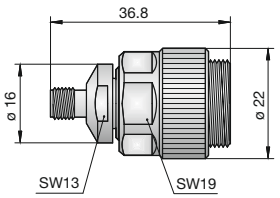
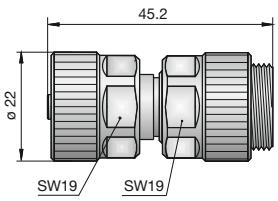
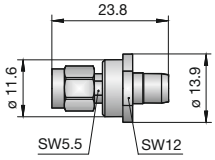
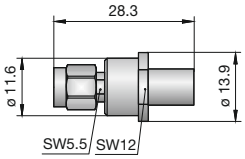
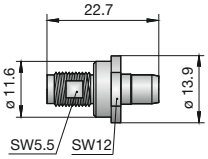
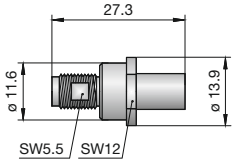
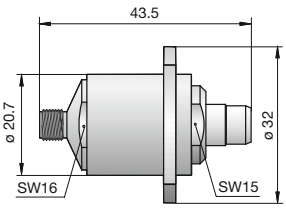
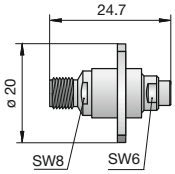
Adaptor (In Series)

Ordering Number	Version	Remarks	Return Loss	Panel Piercing / PCB Layout	
03 S 121-S00 S3	straight	RPC-3.50 male - male	≥ 26 dB @ DC to 26.5 GHz		
03 S 121-S20 S3	straight	RPC-3.50 male - male, calibration adaptor	≥ 34 dB @ DC to 4 GHz ≥ 30 dB @ 4 GHz to 26.5 GHz		
03 S 121-K00 S3	straight	RPC-3.50 male - female	≥ 26 dB @ DC to 26.5 GHz		
03 S 121-K20 S3	straight	RPC-3.50 male - female, calibration adaptor	≥ 34 dB @ DC to 4 GHz ≥ 30 dB @ 4 GHz to 26.5 GHz		
03 K 121-K00 S3	straight	RPC-3.50 female - female	≥ 26 dB @ DC to 26.5 GHz		
03 K 121-K20 S3	straight	RPC-3.50 female - female, calibration adaptor	≥ 34 dB @ DC to 4 GHz ≥ 30 dB @ 4 GHz to 26.5 GHz		
03 S 422-S00 S3	straight	RPC-3.50 male-male ruggedized, 4-hole flange	≥ 20 dB @ DC to 26.5 GHz		
03 K 521-S00 S3	straight	RPC-3.50 female - male, round flange	≥ 26 dB @ DC to 26.5 GHz	MB 107	
03 K 721-S23 S3	straight	RPC-3.50 female - male, 2-hole flange, floating test adaptor	≥ 26 dB @ DC to 18 GHz ≥ 23 dB @ 18 GHz to 26.5 GHz		
03 KR 121-S00 S3	straight	RPC-3.50 female ruggedized - male	≥ 26 dB @ DC to 26.5 GHz		
03 KR 121-K00 S3	straight	RPC-3.50 female ruggedized - female	≥ 26 dB @ DC to 26.5 GHz		

Adaptor (Inter Series)

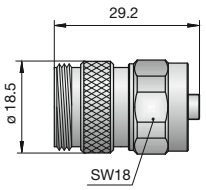
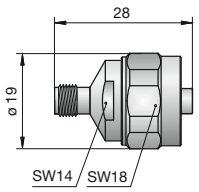
Ordering Number	Version	Remarks	Return Loss	
03 S 159-S20 S3	straight	RPC-3.50 male - FAKRA male, calibration adaptor	≥ 38 dB @ DC to 1 GHz ≥ 26 dB @ 1 to 3 GHz ≥ 21 dB @ 3 to 6 GHz	
03 S 159-K20 S3	straight	RPC-3.50 male - FAKRA female, calibration adaptor	≥ 38 dB @ DC to 1 GHz ≥ 26 dB @ 1 to 3 GHz ≥ 21 dB @ 3 to 6 GHz	
03 K 159-S20 S3	straight	RPC-3.50 female - FAKRA male, calibration adaptor	≥ 38 dB @ DC to 1 GHz ≥ 26 dB @ 1 to 3 GHz ≥ 21 dB @ 3 to 6 GHz	
03 K 159-K20 S3	straight	RPC-3.50 female - FAKRA female, calibration adaptor	≥ 38 dB @ DC to 1 GHz ≥ 26 dB @ 1 to 3 GHz ≥ 21 dB @ 3 to 6 GHz	
03 S 128-S20 N3	straight	RPC-3.50 male - QMA male, calibration adaptor	≥ 32 dB @ DC to 4 GHz ≥ 24 dB @ 4 GHz to 18 GHz	
03 S 128-K20 N3	straight	RPC-3.50 male - QMA female, calibration adaptor	≥ 32 dB @ DC to 4 GHz ≥ 24 dB @ 4 GHz to 18 GHz	
03 K 128-S20 N3	straight	RPC-3.50 female - QMA male, calibration adaptor	≥ 32 dB @ DC to 4 GHz ≥ 24 dB @ 4 GHz to 18 GHz	
03 K 128-K20 N3	straight	RPC-3.50 female - QMA female, calibration adaptor	≥ 32 dB @ DC to 4 GHz ≥ 24 dB @ 4 GHz to 18 GHz	
03 K 728-S22 S3	straight	RPC-3.50 female - QMA male, 2-hole flange, floating test adaptor	≥ 40 dB @ DC to 2.5 GHz ≥ 28 dB @ 2.5 GHz to 6 GHz ≥ 24 dB @ 6 GHz to 18 GHz	
03 S 109-S00 S3	straight	RPC-3.50 male - RPC 2.40 male	≥ 23 dB @ DC to 26.5 GHz	
03 S 109-K00 S3	straight	RPC-3.50 male - RPC 2.40 female	≥ 23 dB @ DC to 26.5 GHz	

Ordering Number	Version	Remarks	Return Loss	
03 K 109-S00 S3	straight	RPC-3.50 female - RPC 2.40 male	≥ 23 dB @ DC to 26.5 GHz	
03 K 109-K00 S3	straight	RPC-3.50 female - RPC 2.40 female	≥ 23 dB @ DC to 26.5 GHz	
03 S 105-S00 S3	straight	RPC-3.50 male - RPC-N 50 Ω male	≥ 26 dB @ DC to 18 GHz	
03 S 105-K00 S3	straight	RPC-3.50 male - RPC-N 50 Ω female	≥ 26 dB @ DC to 18 GHz	
03 K 105-S00 S3	straight	RPC-3.50 female - RPC-N 50 Ω male	≥ 26 dB @ DC to 18 GHz	
03 K 105-K00 S3	straight	RPC-3.50 female - RPC-N 50 Ω female	≥ 26 dB @ DC to 18 GHz	
03 KR 105-K00 S3	straight	RPC-3.50 female, ruggedized - RPC-N 50 Ω female	≥ 26 dB @ DC to 18 GHz	
03 KR 105-S00 S3	straight	RPC-3.50 female, ruggedized - RPC-N 50 Ω male	≥ 26 dB @ DC to 18 GHz	
03 S 107-P00 S3	straight	RPC-3.50 male - RPC-7	≥ 28 dB @ DC to 18 GHz	
03 S 107-P20 S3	straight	RPC-3.50 male - RPC-7, calibration adaptor	≥ 36 dB @ DC to 4 GHz ≥ 28 dB @ 4 GHz to 18 GHz	

Ordering Number	Version	Remarks	Return Loss	
03 K 107-P00 S3	straight	RPC-3.50 female - RPC-7	≥ 28 dB @ DC to 18 GHz	
03 K 107-P20 S3	straight	RPC-3.50 female - RPC-7, calibration adaptor	≥ 36 dB @ DC to 4 GHz ≥ 28 dB @ 4 GHz to 18 GHz	
03 KR 107-P00 S3	straight	RPC-3.50 female, ruggedized - RPC-7	≥ 28 dB @ DC to 18 GHz	
03 S 110-S01 S3	straight	RPC-3.50 male - RPC-SP male	≥ 23 dB @ DC to 22 GHz	
03 S 110-S21 S3	straight	RPC-3.50 male - RPC-SP male, calibration adaptor	≥ 34 dB @ DC to 4 GHz ≥ 26 dB @ 4 GHz to 22 GHz	
03 S 110-K01 S3	straight	RPC-3.50 male - RPC-SP female	≥ 23 dB @ DC to 22 GHz	
03 S 110-K21 S3	straight	RPC-3.50 male - RPC-SP female, calibration adaptor	≥ 34 dB @ DC to 4 GHz ≥ 26 dB @ 4 GHz to 22 GHz	
03 K 110-S01 S3	straight	RPC-3.50 female - RPC-SP male	≥ 23 dB @ DC to 22 GHz	
03 K 110-S21 S3	straight	RPC-3.50 female - RPC-SP male, calibration adaptor	≥ 34 dB @ DC to 4 GHz ≥ 26 dB @ 4 GHz to 22 GHz	
03 K 110-K01 S3	straight	RPC-3.50 female - RPC-SP female	≥ 23 dB @ DC to 22 GHz	
03 K 110-K21 S3	straight	RPC-3.50 female - RPC-SP female, calibration adaptor	≥ 34 dB @ DC to 4 GHz ≥ 26 dB @ 4 GHz to 22 GHz	
03 K 706-S23 S3	straight	RPC-3.50 female - RPC-TNC male, 2-hole flange, floating test adaptor	≥ 35 dB @ DC to 2.5 GHz ≥ 25 dB @ 2.5 GHz to 6 GHz ≥ 20 dB @ 6 GHz to 16 GHz ≥ 17 dB @ 16 GHz to 18 GHz	
03 K 719-S22 S3	straight	RPC-3.50 female - SMP male, full detent, 2-hole flange, floating test adaptor	≥ 30 dB @ DC to 12 GHz ≥ 20 dB @ 12 to 26.5 GHz	

Interchangeable Port Connector System

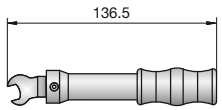
RPC-3.50 - RPC-SL 26.5 GHz

Ordering Number	Version	Remarks	Return Loss	
03 S 104-S00 S3	straight	RPC-3.50 male - RPC-SL 26.5 GHz male	≥ 21 dB @ DC to 26.5 GHz	
03 K 104-S00 S3	straight	RPC-3.50 female - RPC-SL 26.5 GHz male	≥ 21 dB @ DC to 26.5 GHz	

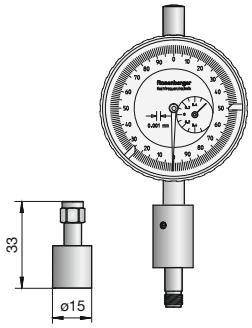
see also chapter interchangeable port connector system

Tools

Torque Wrench

Ordering Number	Remarks	
03 W 021-000	flat 8 mm - 0.9 Nm torque for RPC-3.50 , RPC- 2.92, RPC-2.40, RPC-1.85	

Gauge

Ordering Number	Remarks	
03 W 00S-000	compatible to male connectors for RPC-3.50, RPC-2.92 incl. gauge block	
03 W 00K-000	compatible to female connectors for RPC-3.50, RPC-2.92 incl. gauge block