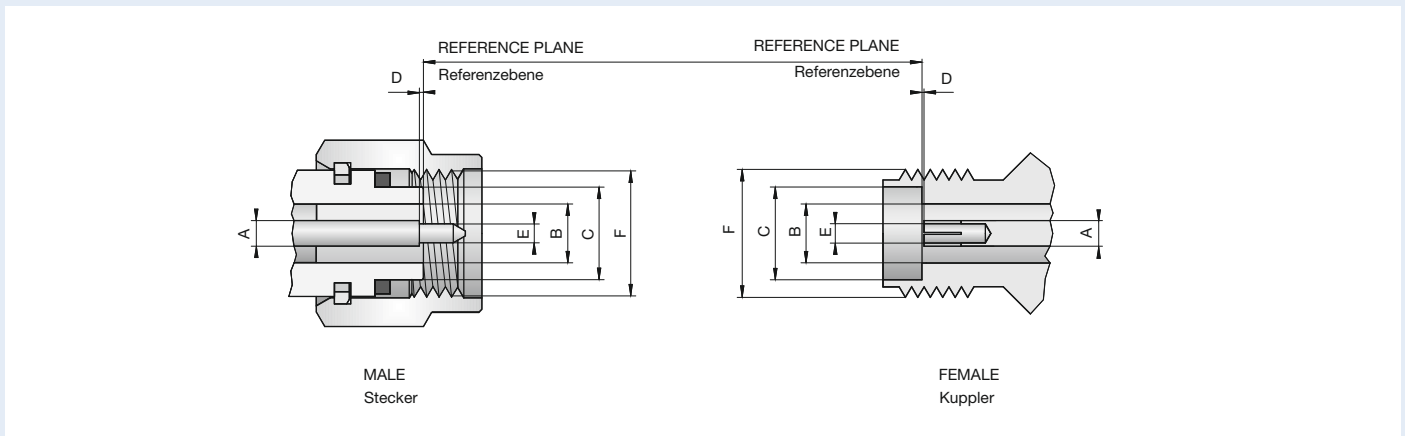


**Interface Dimensions Series RPC-2.92 (code 02)**



**Series RPC-2.92**

dimension	Male   Stecker		Female   Kuppler	
	min.	max.	min.	max.
A	1.26	1.28	1.26	1.28
B	2.91	2.93	2.91	2.93
C	4.57	4.59	4.62	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-2.92

<b>Applicable standards   Anwendbare Standards</b>	
Mechanically compatible with   <i>Mechanisch kompatibel mit</i>	RPC-3.50 and SMA
<b>Electrical data   Elektrische Daten</b>	
Impedance   <i>Wellenwiderstand</i>	50 $\Omega$
Frequency range   <i>Frequenzbereich</i>	DC to 40 GHz
Return loss (connector head)   <i>Rückflußdämpfung (Steckerkopf)</i>	$\geq 23$ dB, DC to 40 GHz
Insertion loss (connector head)   <i>Dämpfung (Steckerkopf)</i>	$\leq 0.04$ dB x $f$ [GHz]
Insulation resistance   <i>Isolationswiderstand</i>	$\geq 5$ G $\Omega$
Center contact resistance   <i>Übergangswiderstand Innenleiter</i>	$\leq 3.0$ m $\Omega$
Outer contact resistance   <i>Übergangswiderstand Außenleiter</i>	$\leq 2.0$ m $\Omega$
Test voltage   <i>Prüfspannung</i>	750 V rms
Working voltage   <i>Betriebsspannung</i>	250 V rms
RF-leakage   <i>Schirmdämpfung</i>	$\geq 100$ dB up to 1 GHz
<b>Mechanical data   Mechanische Daten</b>	
Mating cycles   <i>Steckzyklen</i>	$\geq 500$
Center contact captivation   <i>Innenleiter Haltekraft</i>	$\geq 22$ N
Coupling torque recommended   <i>Anzugsdrehmoment empfohlen</i>	0.80 Nm to 1.10 Nm
Coupling test torque   <i>Prüfdrehmoment</i>	1.70 Nm
<b>Environmental data   Umweltdaten</b>	
Temperature range   <i>Temperaturbereich</i>	-40 °C to +85 °C
Thermal shock   <i>Temperaturzyklen</i>	MIL-STD 202, Method 107, Condition B
Corrosion resistance   <i>Korrosionsbeständigkeit</i>	MIL-STD 202, Method 101, Condition B
Vibration   <i>Vibration</i>	MIL-STD 202, Method 204, Condition D
Shock   <i>Schock</i>	MIL-STD 202, Method 213, Condition I
Moisture resistance   <i>Feuchtigkeitsbeständigkeit</i>	MIL-STD 202, Method 106
Max. soldering temperature   <i>Maximale Löttemperatur</i>	IEC 61760-1, +260 °C for 10 sec.
<b>Materials   Materialien</b>	
Center contact   <i>Innenleiter</i>	Beryllium copper, gold-plated
Outer contact   <i>Außenleiter</i>	Stainless steel, passivated plating
Dielectric   <i>Dielektrikum</i>	PS, PEEK
Gasket   <i>Dichtung</i>	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	
02 S 121-000 S3	with bead	$\geq 23$ dB @ DC to 40 GHz	

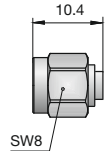
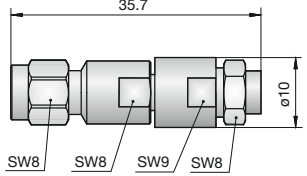
Straight Jack

Ordering Number	Remarks	Return Loss	
02 K 121-000 S3	with bead	$\geq 23$ dB @ DC to 40 GHz	

## Cable Connectors Semi-Rigid Cable

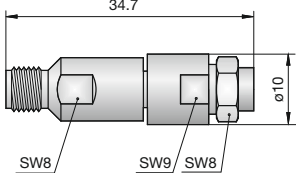
Straight Plug, solder

Semi-Rigid

Ordering Number	Return Loss	Cable Group	Assembly Instruction	
02 S 141-271 E4	$\geq 30$ dB @ DC to 4 GHz $\geq 22$ dB @ 4 GHz to 32 GHz $\geq 20$ dB @ 32 GHz to 40 GHz	71	02 A5	
02 S 141-2W9 E4	$\geq 30$ dB @ DC to 4 GHz $\geq 22$ dB @ 4 GHz to 32 GHz $\geq 20$ dB @ 32 GHz to 40 GHz	W9	02 A8	
02 S 121-271 S3	$\geq 23$ dB @ DC to 40 GHz	71	02 A3	

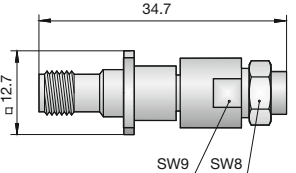
Straight Jack, solder

Semi-Rigid

Ordering Number	Return Loss	Cable Group	Assembly Instruction	
02 K 121-271 S3	$\geq 23$ dB @ DC to 40 GHz	71	02 A3	

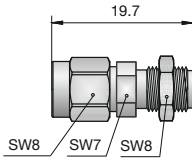
Panel Jack, 4-hole flange

Semi-Rigid

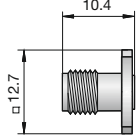
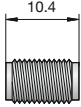
Ordering Number	Return Loss	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	
02 K 421-271 S3	$\geq 23$ dB @ DC to 40 GHz	71	02 A3	MB 55	

**Panel Connectors**

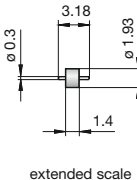
Panel Plug

Ordering Number	Remarks	Return Loss	
02 S 521-800 S3	without glass bead, for hermetic sealed glass bead pin 0.3 mm 02 Z 101-000	$\geq 19$ dB @ DC to 40 GHz	

Panel Jack

Ordering Number	Remarks	Return Loss	Panel Piercing / PCB Layout	Packing Unit	
02 K 421-800 S3	without glass bead, for hermetic sealed glass bead pin 0.3 mm 02 Z 101-000	$\geq 23$ dB @ DC to 34 GHz $\geq 19$ dB @ 34 to 40 GHz	MB 55	100 blister	
02 K 526-800 S3	without glass bead, for hermetic sealed glass bead pin 0.3 mm 02 Z 101-000	$\geq 23$ dB @ DC to 34 GHz $\geq 19$ dB @ 34 to 40 GHz		100 blister	

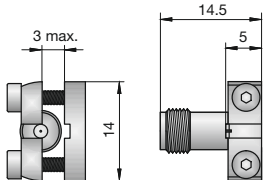
Glass Bead

Ordering Number	Remarks	Return Loss	
02 Z 101-000	hermetic sealed	$\geq 19$ dB @ DC to 40 GHz	 <p>extended scale</p>

**PCB Connectors SMD**

Right Angle Panel Jack, edge mount

SMD

Ordering Number	Remarks	Return Loss	Panel Piercing / PCB Layout	
02 K 243-40M E3	for various PCB's 0-3 mm	$\geq 14$ dB @ DC to 40 GHz	MB 208	

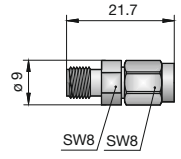
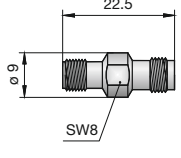
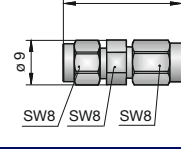
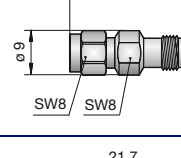
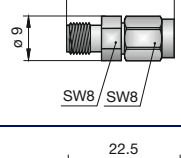
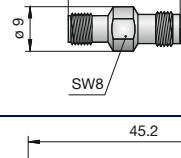
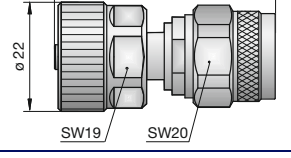
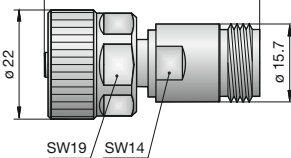
## Adaptors

Adaptor (In Series)

Ordering Number	Version	Remarks	Return Loss	Panel Piercing / PCB Layout	
02 S 121-S00 S3	straight	RPC-2.92 male - male	$\geq 21$ dB @ DC to 40 GHz		
02 S 121-S20 S3	straight	RPC-2.92 male - male, calibration adaptor	$\geq 32$ dB @ DC to 4 GHz $\geq 25$ dB @ 4 GHz to 40 GHz		
02 S 121-K00 S3	straight	RPC-2.92 male - female	$\geq 21$ dB @ DC to 40 GHz		
02 S 121-K20 S3	straight	RPC-2.92 male - female, calibration adaptor	$\geq 32$ dB @ DC to 4 GHz, $\geq 25$ dB @ 4 to 40 GHz		
02 S 422-S00 S3	straight	RPC-2.92 male-male, ruggedized, 4-hole flange	$\geq 23$ dB @ DC to 18 GHz $\geq 17$ dB @ 18 GHz to 40 GHz		
02 K 121-K00 S3	straight	RPC-2.92 female - female	$\geq 21$ dB @ DC to 40 GHz		
02 K 121-K20 S3	straight	RPC-2.92 female - female, calibration adaptor	$\geq 32$ dB @ DC to 4 GHz $\geq 25$ dB @ 4 GHz to 40 GHz		
02 K 521-S00 S3	straight	RPC-2.92 female - male, round flange	$\geq 19$ dB @ DC to 40 GHz	MB 107	
02 K 621-K00 S3	straight	RPC-2.92 female - female, hexagonal flange	$\geq 21$ dB @ DC to 40 GHz	MB 56	
02 K 641-KH0 S3	straight	RPC-2.92 female - female, round flange, hermetic sealed	$\geq 15.5$ dB @ DC to 40 GHz	MB 58	
02 KR 121-S00 S3	straight	RPC-2.92 female, ruggedized - male	$\geq 21$ dB @ DC to 40 GHz		
02 KR 121-K00 S3	straight	RPC-2.92 female, ruggedized - female	$\geq 21$ dB @ DC to 40 GHz		

## Adaptor (Inter Series)

Ordering Number	Version	Remarks	Return Loss	
02 S 118-S00 S3	straight	RPC-2.92 male - Mini-SMP male	$\geq 30$ dB @ DC to 12 GHz $\geq 26$ dB @ 12 to 20 GHz $\geq 18$ dB @ 20 to 40 GHz	
02 S 118-K00 S3	straight	RPC-2.92 male - Mini-SMP female	$\geq 30$ dB @ DC to 12 GHz $\geq 26$ dB @ 12 to 20 GHz $\geq 18$ dB @ 20 to 40 GHz	
02 K 118-S00 S3	straight	RPC-2.92 female - Mini-SMP male	$\geq 30$ dB @ DC to 12 GHz $\geq 26$ dB @ 12 to 20 GHz $\geq 18$ dB @ 20 to 40 GHz	
02 K 118-K00 S3	straight	RPC-2.92 female - Mini-SMP female	$\geq 30$ dB @ DC to 12 GHz $\geq 26$ dB @ 12 to 20 GHz $\geq 18$ dB @ 20 to 40 GHz	
02 S 119-S00 E3	straight	RPC-2.92 male - SMP male	$\geq 32$ dB @ DC to 12 GHz $\geq 26$ dB @ 12 to 26.5 GHz $\geq 21$ dB @ 26.5 to 40 GHz	
02 S 119-K00 E3	straight	RPC-2.92 male - SMP female	$\geq 32$ dB @ DC to 12 GHz $\geq 26$ dB @ 12 to 26.5 GHz $\geq 21$ dB @ 26.5 to 40 GHz	
02 K 119-S00 E3	straight	RPC-2.92 female - SMP male	$\geq 32$ dB @ DC to 12 GHz $\geq 26$ dB @ 12 to 26.5 GHz $\geq 21$ dB @ 26.5 to 40 GHz	
02 K 119-K00 E3	straight	RPC-2.92 female - SMP female	$\geq 32$ dB @ DC to 12 GHz $\geq 26$ dB @ 12 to 26.5 GHz $\geq 21$ dB @ 26.5 to 40 GHz	
02 S 108-S00 S3	straight	RPC-2.92 male - RPC-1.85 male	$\geq 19$ dB @ DC to 40 GHz	
02 S 108-K00 S3	straight	RPC-2.92 male - RPC-1.85 female	$\geq 19$ dB @ DC to 40 GHz	

Ordering Number	Version	Remarks	Return Loss	
02 K 108-S00 S3	straight	RPC-2.92 female - RPC-1.85 male	$\geq 19$ dB @ DC to 40 GHz	
02 K 108-K00 S3	straight	RPC-2.92 female - RPC-1.85 female	$\geq 19$ dB @ DC to 40 GHz	
02 S 109-S00 S3	straight	RPC-2.92 male - RPC-2.40 male	$\geq 19$ dB @ DC to 40 GHz	
02 S 109-K00 S3	straight	RPC-2.92 male - RPC-2.40 female	$\geq 19$ dB @ DC to 40 GHz	
02 K 109-S00 S3	straight	RPC-2.92 female - RPC-2.40 male	$\geq 19$ dB @ DC to 40 GHz	
02 K 109-K00 S3	straight	RPC-2.92 female - RPC-2.40 female	$\geq 19$ dB @ DC to 40 GHz	
02 KR 107-P00 S3	straight	RPC-2.92 female, ruggedized - RPC-7	$\geq 28$ dB @ DC to 18 GHz	
02 KR 105-S00 S3	straight	RPC-2.92 female, ruggedized - RPC-N 50 Ω male	$\geq 26$ dB @ DC to 18 GHz	
02 KR 105-K00 S3	straight	RPC-2.92 female, ruggedized - RPC-N 50 Ω female	$\geq 26$ dB @ DC to 18 GHz	



**Interchangeable Port Connector System**

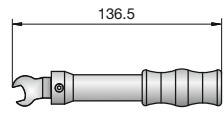
RPC 2.92 - RPC-SL 40 GHz

Ordering Number	Version	Remarks	Return Loss	
02 S 1P4-S00 S3	straight	RPC-2.92 male - RPC-SL 40 GHz male	$\geq 21$ dB @ DC to 26.5 GHz $\geq 19$ dB @ 26.5 to 40 GHz	
02 K 1P4-S00 S3	straight	RPC-2.92 female - RPC-SL 40 GHz male	$\geq 21$ dB @ DC to 26.5 GHz $\geq 19$ dB @ 26.5 to 40 GHz	

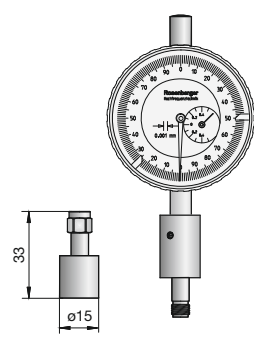
see also chapter interchangeable port connector system

## 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	