

# SnapN



SnapN coaxial connectors can be applied up to 11 GHz and are compatible to Standard N connectors: SnapN jacks (female) and Standard N plugs (male) are intermateable. The outer diameter of 16 mm – smaller compared to standard N interface – leads to higher packing densities, the quick-lock coupling mechanism enables reliable and easy connections 10 times faster than Standard N in the tightest spaces. Assembly tools are not necessary.

SnapN-Koaxial-Steckverbinder sind einsetzbar bis 11 GHz und rückwärtskompatibel zu Standard-N-Steckverbindern: SnapN-Kuppler können mit Standard-N-Steckern verbunden werden. Durch den im Vergleich zum Standard-N-Interface kleineren Außendurchmesser von 16 mm wird eine deutlich höhere Packungsdichte erreicht, der Quick-Lock-Einrastmechanismus ermöglicht zuverlässige, einfache und im Vergleich zu Standard N 10-fach schnellere Steckverbindungen auf engstem Raum. Werkzeuge sind nicht erforderlich.

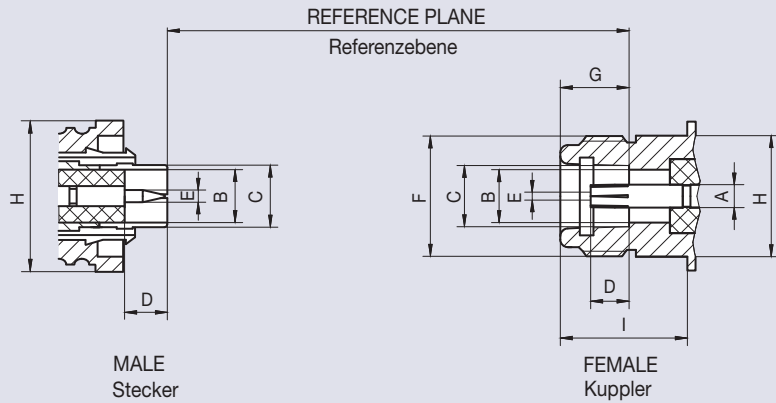
SnapN



SnapN

## Interface Dimensions SnapN

Code 53Q



	Male   Stecker		Female   Kuppler	
	min.	max.	min.	max.
A	–	–		Ø 3.04 nom.
B	Ø 7.00 nom.		Ø 7.00 nom.	
C	Ø 8.20	Ø 8.38	Ø 8.027	Ø 8.13
D	5.33	–	4.75	5.26
E	Ø 1.60	Ø 1.676		<sup>1)</sup>
F	–	–	5/8-24 UNEF-2A	
G	–	–	9.05	9.19
H	Ø 16.00 nom.		–	Ø 15.93
I	–	–	–	10.72

Dimensions in mm

<sup>1)</sup> Resilient, dimension to meet electrical and mechanical requirements

Please note: For locking and unlocking units, please always use the latching sleeve

Bitte beachten: Beim Ver- und Entriegeln unbedingt Hülse betätigen

### Features

- ▶ Interface according to Rosenberger SnapN
- ▶ Frequency range DC to 11 GHz
- ▶ Return loss (cable connector straight)  $\geq 25$  dB @ 6 GHz
- ▶ Minimum pitch: 16 mm
- ▶ Flexibility: 360° turnable
- ▶ Impedance 50  $\Omega$
- ▶ SnapN female mateable with N male
- ▶ Quick-lock coupling

### Product Range

- ▶ Cable connectors
- ▶ Panel connectors
- ▶ Adaptors

## Technical Data SnapN

## Code 53Q

Applicable standards   Anwendbare Normen	
Interface according to   Interface gemäß	Rosenberger SnapN
Interface female according to   Interface Kuppler gemäß	IEC 61169-16, CECC 22210, MIL-PRF-39012
Electrical data   Elektrische Daten	
Impedance   Wellenwiderstand	50 Ω
Frequency range   Frequenzbereich	DC to 11 GHz
Return loss (cable connector straight)   Rückflussdämpfung (Kabelsteckverbinder gerade)	≥ 32 dB @ DC to 3 GHz ≥ 25 dB @ 3 GHz to 6 GHz ≥ 20 dB @ 6 GHz to 11 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
Working voltage   Betriebsspannung	500 V rms
Power handling   Leistungsbelastbarkeit	300 W @ 2.5 GHz
RF leakage - Interface   Schirmdämpfung	≥ 90 dB @ DC to 3 GHz ≥ 80 dB @ 3 GHz to 6 GHz
Intermodulation 3rd order   Intermodulation 3. Ordnung	≤ -155 dBc (2 x 43 dBm)
Mechanical data   Mechanische Daten	
Mating cycles   Steckzyklen	≥ 200
Center contact captivation   Innenleiter Haltekraft	axial: ≥ 28 N radial: ≥ 3 Ncm
Engagement force   Steckkraft	30 N (typ.)
Disengagement force   Ziehkraft	30 N (typ.)
Pitch   Packungsdichte	≥ 16 mm
Environmental data   Umweltdaten	
Temperature range   Temperaturbereich	-40 °C to +125 °C
Thermal shock   Temperaturzyklen	IEC 60169-1, Sub-clause 16.4 (-40 °C / +125 °C)
Damp heat   Feuchte Wärme	IEC 60169-1, Sub-clause 16.3
Climatic sequence   Klimasequenz	IEC 60169-1, Sub-clause 16.2, 40/125/21
Vibration   Vibration	MIL-STD-202, Method 204, Condition A
Shock   Schock	MIL-STD-202, Method 213, Condition I
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, Au plating
Center contact   Innenleiter	CuZn, Au plating
Outer contact   Außenleiter	CuZn, white bronze plating
Body   Gehäuse	CuZn, white bronze plating
Locking sleeve   Verriegelungshülse	CuZn, white bronze plating
Crimping ferrule   Crimphülse	Cu, white bronze plating
Dielectric   Dielektrikum	PTFE
Gasket   Dichtung	Silicone


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	Cable Group	
53Q S 101-272 B5	150672	50	standard	72	

### Straight Panel Jack, solder


Semi-Rigid Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
53Q K 501-272 N5	154738	50	standard	round flange rear mount length 33 mm	72	

## Panel Connectors - Coaxial End



### Straight Panel Jack, 4-hole flange

Solder End

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
53Q K 40A-500 N5	156040	50	standard	4-hole flange 19 mm 4 x Ø 3.4 mm	
53Q K 44F-500 N5	228644	25	standard	4-hole flange 17.5 mm 4 x Ø 3.2 mm	

## Adaptors

### Adaptors SnapN - N 50 Ω

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
53Q S 153-K00 N5	167684	1	standard	SnapN male - N female	
53Q K 153-S00 N5	166862	1	standard	SnapN female - N male	

## Adaptors SnapN - RPC-N 50 Ω

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Return Loss	
53Q S 105-S00 S3	169219	1	standard	SnapN male - RPC-N 50 Ω male	≥ 26 dB @ DC to 11 GHz	
53Q S 105-K00 S3	159286	1	standard	SnapN male - RPC-N 50 Ω female	≥ 26 dB @ DC to 11 GHz	
53Q S 105-K20 S3	182044	1	standard	SnapN male - RPC-N 50 Ω female calibration adaptor	≥ 36 dB @ DC to 4 GHz ≥ 27 dB @ 4 GHz to 11 GHz	
53Q K 105-S00 S3	158124	1	standard	SnapN female - RPC-N 50 Ω male	≥ 28 dB @ DC to 11 GHz ≥ 26 dB @ 11 GHz to 18 GHz	
53Q K 105-S20 S3	182045	1	standard	SnapN female - RPC-N 50 Ω male calibration adaptor	≥ 36 dB @ DC to 4 GHz ≥ 27 dB @ 4 GHz to 11 GHz	
53Q K 105-K00 S3	158125	1	standard	SnapN female - RPC-N 50 Ω female	≥ 28 dB @ DC to 11 GHz ≥ 26 dB @ 11 GHz to 18 GHz	