

QN



QN coaxial connectors (quick-lock N connectors) are based on the N connector interface with a frequency range up to 11 GHz. The quick-lock coupling mechanism enables reliable and easy connections 10 times faster than standard N in the tightest spaces, primarily in mobile base stations. Assembly tools are not necessary. QN and standard N connectors are not intermateable.

QN-Koaxial-Steckverbinder – Quick-Lock-N-Steckverbinder – basieren in Eigenschaften und Abmessungen auf der Serie N, der Frequenzbereich reicht bis 11 GHz. Der Quick-Lock-Einrastmechanismus ermöglicht zuverlässige, einfache und im Vergleich zu Standard N 10-fach schnellere Steckverbindungen auf engstem Raum, z. B. in Mobilfunk-Basisstationen. Werkzeuge sind nicht erforderlich. Steckkompatibilität zwischen den Serien QN und N ist nicht gegeben.

QN



Interface Dimensions QN

Code 153Q



Rosenberger is an authorized QLF[®] manufacturer.

Rosenberger QN connectors fulfil the QLF[®] standard (Quick Lock Formula, a registered trademark).

QLF[®] guarantees full intermateability between connectors produced by licensing agreement parties.

Rosenberger as licensee is free to market QN connectors as QLF[®] products.

For further information, please see: www.qf.info

Rosenberger ist autorisierter QLF[®]-Hersteller.

Rosenberger QN-Steckverbinder entsprechen dem QLF[®]-Standard, der als Warenzeichen eingetragen ist.

QLF[®] (Quick Lock Formula) stellt die Steckbarkeit von Produkten der Lizenzparteien sicher.

Rosenberger ist als Lizenznehmer berechtigt, QN Steckverbinder als QLF[®]-Produkte zu vermarkten.

Weitere Informationen unter: www.qf.info



Features

- ▶ Interface according to QLF[®] (Quick Lock Formula)
- ▶ Frequency range DC to 11 GHz
- ▶ Return loss (cable connector straight) ≥ 25 dB @ 6 GHz
- ▶ Minimum pitch: 20 mm
- ▶ Flexibility: 360° turnable
- ▶ Impedance 50 Ω
- ▶ Quick-lock coupling

Product Range

- ▶ Cable connectors
- ▶ Panel connectors
- ▶ Adaptors

Technical Data QN

Code 153Q

Applicable standards Anwendbare Normen	
Interface according to Interface gemäß	QLF® (Quick Lock Formula) Rosenberger is an authorized QLF® manufacturer
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	≤ 1.5 mΩ
Outer contact resistance Übergangswiderstand Außenleiter	≤ 1.5 mΩ
Test voltage Prüfspannung	2500 V rms
Working voltage Betriebsspannung	1000 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	≥ 100
Interface retention force Interface Haltekraft	≥ 450 N
Engagement force Steckkraft	30 N (typ.)
Disengagement force Ziehkraft	30 N (typ.)
Pitch Packungsdichte	≥ 20 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)
Degree of protection (mated pair) Schutzgrad (gekoppeltes Paar)	IEC 60529, IP 68
Corrosion resistance Korrosionsbeständigkeit	MIL-STD-202, Method 101, Condition B
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	
153Q S 102-272 N5	161808	25	standard	72	


Right Angle Plug, solder

Semi-Rigid Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
153Q S 202-272 N5	165768	25	standard	72	

Panel Jack, solder, hexagonal flange



Semi-Rigid Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
153Q K 601-272 N5	154046	25	standard	hexagonal flange rear mount	72	

Cable Connectors - Flexible Cables



Straight Plug, crimp

Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
153Q S 108-106 N5	165702	25	standard	06	
153Q S 108-108 N5	165741	25	standard	08	
153Q S 101-115 N5	165758	25	standard	15	



Right Angle Plug, solder-crimp

Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Cable Group	
153Q S 205-306 N5	165760	25	standard	06	
153Q S 205-308 N5	165761	25	standard	08	
153Q S 205-315 N5	165776	25	standard	15	

Panel Jack, crimp, hexagonal flange


Flexible Cables

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	Cable Group	
153Q K 607-106 N5	156466	25	standard	hexagonal flange rear mount	06	
153Q K 607-108 N5	165729	25	standard	hexagonal flange rear mount	08	
153Q K 601-115 N5	165736	25	standard	hexagonal flange rear mount	15	

Panel Connectors - Solder End




Panel Jack, 4-hole flange

Solder End


Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
153Q K 401-200 N5	152485	25	blister	4-hole flange 17.5 mm 4 x Ø 3.2 mm	

Adaptors

Adaptors QN - N 50 Ω

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
153Q S 153-K00 N5	162704	1	standard	QN male - N female	
153Q K 153-S00 N5	162718	1	standard	QN female - N male	
153Q K 153-K00 N5	162713	1	standard	QN female - N female	

Adaptors QN - 7-16

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

Adaptors QN - TNC 50 Ω

Rosenberger No.	Order No.	Sales Unit	Packaging	Remarks	
153Q S 156-K00 N5	195151	1	standard	QN male - TNC female	