SERIES

Serie

QN

QLF® Quick Lock Formula

Series QN - Quick- Lock N Connectors

The quick lock coupling mechanism allows fast, easy and reliable connections in the tightest spaces. QN connectors are based on the N connectors' interface, the frequency range is up to 11 GHz. QN and standard N connectors are not intermateable.

Serie QN - Quick- Lock- N- Steckverbinder

QN- Steckverbinder verfügen über einen Quick Lock- Einrastmechanismus, der schnell, zuverlässig und einfach Steckverbindungen auf engstem Raum ermöglicht. Das Interface basiert auf dem Interface der Serie N, der Frequenzbereich reicht bis 11 GHz. Steckkompatibilität zwischen den Serien QN und N ist nicht gegeben.

Product Features

- Interface according to QLF- Standard
- Quality tested according to IEC 60169
- Frequency range max. up to 11 GHz
- Return loss:
  ≥ 32dB@ 3 GHz,
  ≥ 25 dB @ 6 GHz,
  ≥ 20 dB @ 11 GHz
- Low Intermodulation: ≤ - 155 dBc @ 1.8 GHz (2x43dBm)
- Minimum pitch: 20 mm
- Flexibility: 360° turnable
- Cost effective, easy and 10 times quicker mounting than Standard N (< 2 seconds)
- Without assembly tools - no damaging.

Produkteigenschaften

- *Interface gemäß QLF- Standard*
- *Qualitätsprüfung gemäß IEC 60169*
- *Frequenzbereich max. bis zu 11 GHz*
- Return loss:
  ≥ 32 dB@ 3 GHz,
  ≥ 25 dB @ 6 GHz,
  ≥ 20 dB @ 11 GHz
- *Low Intermodulation: ≤- 155 dBc @ 1,8 GHz (2x43dBm)*
- *Minimaler Montageabstand: 20 mm*
- *Flexibilität: 360° ausrichtbar*
- *Kostengünstige, einfache und 10- fach schnellere Montage im Vergleich zu Standard N (< 2 Sekunden)*
- *Ohne Werkzeug - keine Verformungen.*

Product Range

- Cable connectors (straight and right angle) for flexible and semi- rigid cables
- Panel connectors
- Adaptors

Further connectors are available on request.

Produktspektrum

- *Kabelsteckverbinder (gerade und gewinkelt) für flexible und Semi- Rigid- Kabel*
- *Gehäuse- Steckverbinder*
- *Adapter*

Weitere Steckverbinder auf Anfrage erhältlich.

Application Examples

Primarily in mobile base stations.

Anwendungsbeispiele

Vor allem in Mobilfunk- Basisstationen.

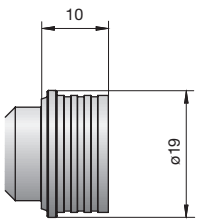
Rosenberger QN Connectors are QLF®- Qualified

Rosenberger QN connectors fulfill 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.
Rosenberger is authorized to act as a QLF® manufacturer for QMA and QN connectors.
For further information, please see: www.qlf.info.

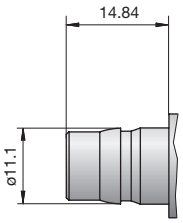
Rosenberger QN- Steckverbinder entsprechen dem QLF®- Standard

Rosenberger QN- Steckverbinder erfüllen den 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.
Rosenberger ist autorisierter QLF®- Hersteller für QMA- und QN- Steckverbinder.
Weitere Informationen unter: www.qlf.info

Interface Dimensions ***Anschlussmaße***



MALE
Stecker



FEMALE
Kuppler

Technical Data

Technische Daten

Applicable standards		Anwendbare Standards
Interface according to	QLF® (Quick Lock Formula) Rosenberger is an authorized QLF® manufacturer	Interface gemäß
Quality tested according to	IEC 60169	Qualitätsprüfung gemäß

Electrical data		Elektrische Daten
Impedance	50 Ω	Wellenwiderstand
Frequency range	0 to 11 GHz	Frequenzbereich
Return loss	≥ 32 dB @ DC to 3 GHz ≥ 25 dB @ 3 GHz to 6 GHz ≥ 20 dB @ 6 GHz to 11 GHz	Rückflussdämpfung
Insertion loss	≤ 0.05 x √ f (GHz) dB	Dämpfung
Test Voltage	2500 V RMS 50Hz, sea level	Prüfspannung
Working voltage	≤ 1000 V RMS, 50Hz, sea level	Betriebsspannung
Insulation resistance	≥ 5x10³ MΩ	Isolationswiderstand
Outer contact resistance	1.5 mΩ initial	Übergangswiderstand Außenleiter
Inner contact resistance	1.5 mΩ initial	Übergangswiderstand Innenleiter
RF- leakage	≤ - 90 dB up to 3 GHz ≤ - 80 dB up to 6 GHz	Schirmdämpfung
Intermodulation	≤ - 155 dBc @ 1.8 GHz (2x43 dBm)	Intermodulation
Power handling	300 W @ 2.5 GHz	Leistungsbelastbarkeit

Mechanical data		Mechanische Daten
Mating cycles	min. 100	Steckzyklen
Engagement force	30 N (typ.)	Steckkraft
Disengagement force	30 N (typ.)	Ziehkraft
Interface retention force	450 N min.	Interface Haltekraft
Connector pitch	≥ 20 mm	Rastermaß

Environmental data		Umweltdaten
Temperature range	- 40°C to +125°C	Temperaturbereich
Thermal shock	IEC 60169- 1 16.4 (- 40°C / +125°C)	Temperaturwechsel
Climatic sequence	IEC 60169- 1 16.2, 40/125/21	Klimafolge
Shock	MIL- STD- 202F, Meth. 213, Cond. I	Schock
Corrosion resistance	Saltspray test acc. to MIL- STD- 202F, Meth. 101D, Cond. B	Korrosionsbeständigkeit
Damp Heat	IEC 60169- 1 16.3 (96 hrs) steady state	Feuchte Wärme
Vibration	MIL- STD- 202F, Meth. 204, Cond. A 10- 500 Hz, 5 g	Vibration
Mixed flowing gas	DIN E 60068- 2- 60, Meth. 4	Schadgastest
IP rating interface	IEC 60529, IP68	IP Schutzklasse Interface

Materials		Materialien
Body	CuZn / Ag, white bronze plating	Gehäuse
Center contact	CuZn, CuSn, CuBe / Au, Ag plating	Innenleiter
Outer contact	CuBe / Au plating	Außenleiter
Unlocking sleeve	CuZn / white bronze plating	Entriegelungshülse
Dielectric	PTFE	Dielektrikum

Cable Connectors Semi- Rigid Cable

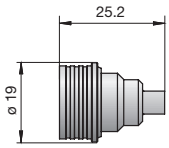
Kabelsteckverbinder Semi- Rigid- Kabel

Straight Plug, solder

Stecker gerade, löt

Semi- Rigid

Ordering Number	Cable Group	Assembly Instruction	Packing Unit
153 QS 102- 272 N5	72	53 T13	100

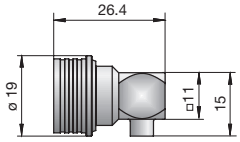


Right Angle Plug, solder

Winkelstecker, löt

Semi- Rigid

Ordering Number	Cable Group	Assembly Instruction	Packing Unit
153 QS 202- 272 N5	72	53 T8	50

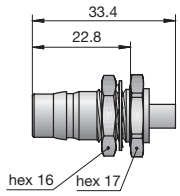


Panel Jack, solder, hexagonal flange

Gehäusekuppler, löt, 6- kant- Flansch

Semi- Rigid

Ordering Number	Version	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit
153 QK 601- 272 N5	rear mount	72	53 T2	B 185	100



Cable Connectors - Flexible Cables

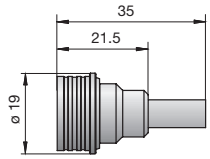
Kabelsteckverbinder Flexible Kabel

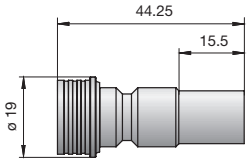
Straight Plug, crimp

Stecker gerade, crimp

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Crimp Inserts	Packing Unit
153 QS 108- 106 N5	06	51 P15	11 W 150- 208	100
153 QS 108- 108 N5	06	51 P15	11 W 150- 208	100
153 QS 101- 115 N5	15	53 O3	11 W 150- 215	50
153 QS 101- 117 N5	17	53 O3	11 W 150- 215	50



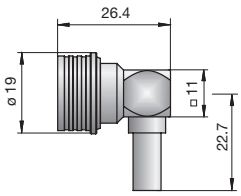


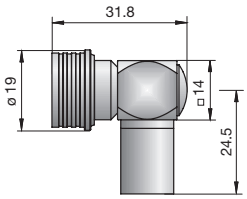
Right Angle Plug, solder- crimp

Winkelstecker, löt- crimp

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Crimp Inserts	Packing Unit
153 QS 205- 306 N5	06	53 S1	11 W 150- 108	50
153 QS 205- 308 N5	08	53 S1	11 W 150- 108	50
153 QS 205- 315 N5	15	53 S8	11 W 150- 115	50
153 QS 205- 317 N5	17	53 S8	11 W 150- 115	50



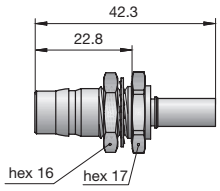


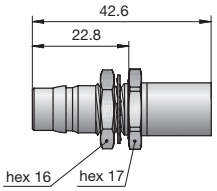
Panel Jack, crimp, hexagonal flange

Gehäusekuppler, crimp, 6- kant- Flansch

Flexible Cables

Ordering Number	Version	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Crimp Inserts	Packing Unit
153 QK 607- 106 N5	rear mount	06	53 P	B 185	11 W 150- 208	100
153 QK 607- 108 N5	rear mount	08	53 P	B 185	11 W 150- 208	100
153 QK 601- 115 N5	rear mount	15	53 O3	B 185	11 W 150- 215	100
153 QK 601- 117 N5	rear mount	17	53 O3	B 185	11 W 150- 215	100





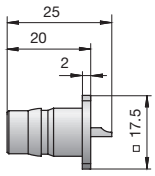
Panel Connectors - Solder End

Gehäuse- Steckverbinder - Lötkelch

Panel Jack, 4- hole flange

Gehäusekuppler, 4- Loch- Flansch

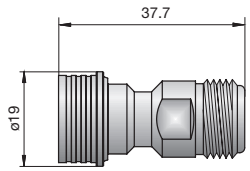
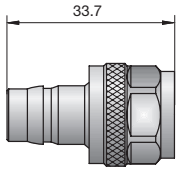
Ordering Number	Panel Piercing / PCB Layout	Packing Unit
153 QK 401- 200 N5	B 6	25 blister



Adaptors (Inter Series)

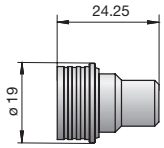
Adapter (serienübergreifend)

QN *QN*

Ordering Number	Version	Remarks	Packing Unit	
153 QS 153- K00 N5	straight	QN male - N female	1	
153 QK 153- S00 N5	straight	QN female - N male	1	

Terminations *Abschlusswiderstände*

Termination Plug *Abschlusswiderstand Stecker*

Ordering Number	Remarks	Return Loss	Packing Unit	
153 QS 15R- 001 N4	1 Watt; Frequency DC - 6 GHz	≥ 26 dB @ DC to 2 GHz ≥ 21 dB @ 2 GHz to 4 GHz ≥ 19 dB @ 4 GHz to 6 GHz	1	
153 QS 15R- 005 N4	5 Watt; Frequency DC - 6 GHz	≥ 26.4 dB @ DC to 2 GHz ≥ 21.2 dB @ 2 GHz to 6 GHz	1