



N (50 Ω) - Robust Coaxial Connectors with Screw- locking System for Applications up to 12 GHz

N connectors are very robust, reliable classical connectors with screw-locking system in medium dimensions. N connectors are characterized by high degree of protection, weatherproofness and excellent intermodulation.

The operating frequency range extends into the microwave range, whereby N standard versions are specified up to 10 GHz (max. 12 GHz). N precision connectors can be used up to 18 GHz.

Rosenberger N connectors for mobile radio stations:

N- connectors are excellent qualified for cable connections used in mobile base stations and antennas. For feeder and jumper cables, connectors are available for corrugated cables with diameters from 1/4" to 1 5/8" in circular and spiral versions .

To protect the whole system against overvoltage damage, safe and effective lightning and EMP protection is an absolute must. Rosenberger offers two different functional systems: Wideband surge arresters for 0.8 to 2.2 GHz and gas- capsule surge arresters with different, replaceable gas capsules (90 V, 230 V, 350 V)

Wideband power splitters, 2- way, 3- way and 4- way for 0.8 to 2.2 GHz, to combine various antenna systems.

N 50 Ω connectors are fully intermateable with Rosenberger precision N connectors (RPC- N).

50 Ω and 75 Ω versions have center conductors of different dimensions and can not be mated.

Product Features

- Frequency range optimum up to 10 GHz, max. up to 12 GHz
- VSWR (straight connector): $\leq 1,10$ typ.
- Interface according to IEC 60169- 16, CECC 22 120, MIL PRF- 39012
- Quality tested according to US MIL- STD 202
- Screw lock coupling system
- High degree of protection, weatherproof
- Excellent VSWR and intermodulation
- 50 Ω and 75 Ω versions are **not** intermateable - accidental damage
- N 50 Ω and N precision connectors are intermateable.

N (50 Ω) - Robuste Koaxialsteckverbinder mit Schraub- Verbindung für Anwendungen bis 12 GHz

N-Steckverbinder zählen zu den robusten und zuverlässigen klassischen Steckverbindern in mittlerer Baugröße mit Schraub- Befestigung. Ein hoher Grad an Reflexionsfreiheit sowie Witterungsbeständigkeit und gute Intermodulation zeichnen diese Serie aus.

Einsatzfrequenzbereiche von N-50- Ω Steckverbindern reichen je nach Qualitätsstandard bis in den Mikrowellenbereich, wobei die Standardausführung bis 10 GHz (max. 12 GHz) angewendet werden kann. Die N- Präzisionsausführung ist für Anwendungen bis 18 GHz konzipiert.

Rosenberger N- Steckverbinder für Mobilfunk- Anwendungen:

N-Steckverbinder eignen sich besonders für die Verkabelung von Mobilfunk- Antennen und Basisstationen. Für Feeder- und Jumper- Kabel sind Steckverbinder für Wellmantelkabel mit Durchmessern von 1/4" bis 1 5/8" in Ring- oder Schraubwellung lieferbar.

Blitzschutzkomponenten sind ein unbedingtes Muss zum Schutz vor Überspannungsschäden in hochwertigen Anlagen. Rosenberger bietet zwei verschiedene Systeme: Breitband- Ableiter für 0,8 bis 2,5 GHz und gasgefüllte Überspannungsableiter mit verschiedenen, auswechselbaren Gas- Patronen (90 V, 230 V, 350 V).

Breitband- 2- fach, 3- fach- und 4- fach- Leistungsteiler für 0,8 bis 2,2 GHz zur Kombination verschiedener Antennensysteme.

Standard und Präzisionsausführung von N- 50- Ω Steckverbindern sind voll steckkompatibel.

50- Ω- und 75- Ω- Versionen haben Innenleiter mit verschiedenen Durchmessern und können deshalb nicht miteinander gekoppelt werden.

Produkteigenschaften

- Frequenzbereich optimal bis 10 GHz, max. bis zu 12 GHz
- VSWR (gerader Steckverbinder): $\leq 1,10$ typ.
- Interface gemäß IEC 60169- 16, CECC 22 210, MIL- PRF- 39012
- Qualitätsprüfung gemäß US MIL- STD 202
- Schraub- Verschluss
- Hoher Schutzgrad, sehr witterungsbeständig
- Sehr gute VSWR- und Intermodulationswerte
- N- 50- Ω- und N- 75- Ω- Varianten sind **nicht** steckkompatibel - Zerstörung möglich
- N- 50- Ω- und N- Präzisionssteckverbinder sind steckkompatibel

Product Range

- Cable connectors (straight and right angle) for flexible, semi-flex, semi-rigid and corrugated cables
- Panel connectors in various flanges with solder or coaxial end, also stripline and microstrip versions
- Wideband power splitters (2-, 3- and 4- way types)
- Lightning surge arresters (wideband and gas-capsule)
- Adaptors
- Terminations (1 - 40 Watt).

Further connectors are available on request.

Application Examples

Signal and data transmission in radio and communication engineering, especially in mobile base stations and antennas, test and measurement applications.

Produktspektrum

- *Kabelsteckverbinder (gerade und gewinkelt) für flexible, Semi-Flex-, Semi-Rigid- und Wellmantel-Kabel*
- *Gehäuse-Steckverbinder in verschiedenen Flanschen, mit Lötkegelch oder koaxialem Ende, sowie Stripline- und Microstrip-Ausführungen*
- *Breitband-Leistungsteiler (2-, 3- und 4-fach-Versionen)*
- *Blitzschutzkomponenten (Breitband- und gasgefüllte Ableiter)*
- *Adapter*
- *Abschlusswiderstände (1 - 40 Watt).*

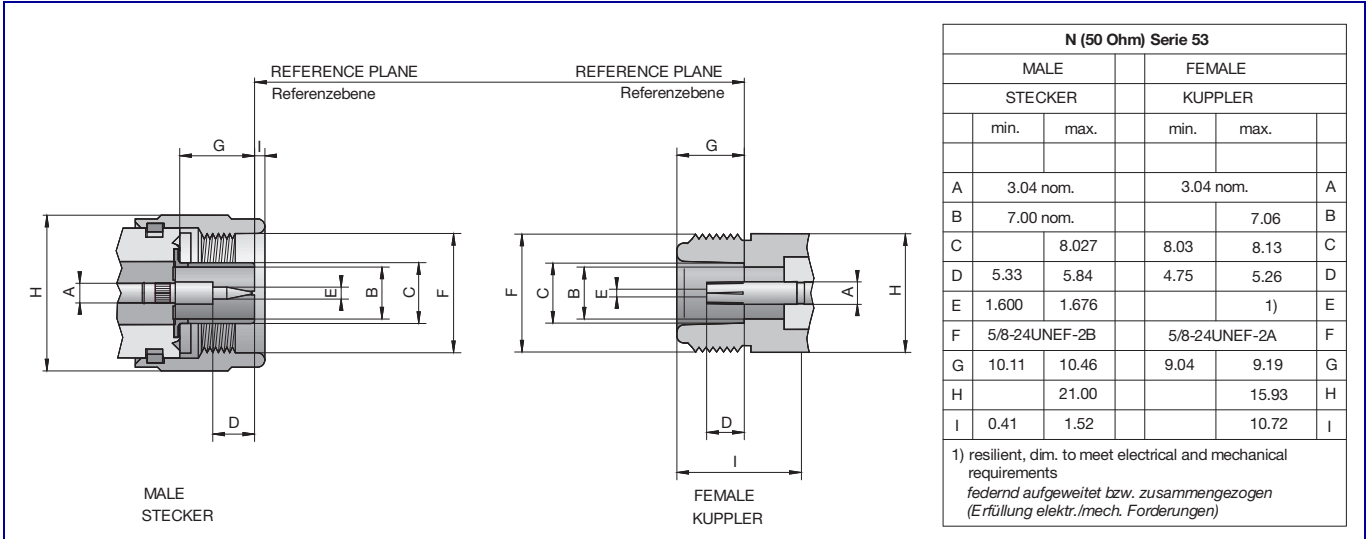
Weitere Steckverbinder auf Anfrage erhältlich.

Anwendungsbeispiele

Signal- und Datenübertragung in der Funk- und Nachrichtentechnik, besonders in Mobilfunk-Antennen und -Basisstationen, Mess- und Prüftechnik.

Interface Dimensions

Anschlussmaße



N (50 Ohm) Serie 53					
MALE			FEMALE		
STECKER			KUPPLER		
	min.	max.	min.	max.	
A	3.04 nom.		3.04 nom.		A
B	7.00 nom.			7.06	B
C		8.027	8.03	8.13	C
D	5.33	5.84	4.75	5.26	D
E	1.600	1.676	1)		E
F	5/8-24UNEF-2B		5/8-24UNEF-2A		F
G	10.11	10.46	9.04	9.19	G
H		21.00		15.93	H
I	0.41	1.52		10.72	I

1) resilient, dim. to meet electrical and mechanical requirements
federnd aufgeweitet bzw. zusammengezogen
(Erfüllung elektr./mech. Forderungen)

Technical Data

Technische Daten

Applicable standards		Anwendbare Standards
Interface according to	IEC 60169- 16, MIL- PRF- 39012, CECC 22210	Interface gemäß
Quality tested according to	US MIL- STD 202	Qualitätsprüfung gemäß

Electrical data		Elektrische Daten
Impedance	50 Ω	Wellenwiderstand
Frequency range	DC to 11 GHz	Frequenzbereich
VSWR (straight contacts)	≤ 1.10 typ.	VSWR gerader Kontakt
VSWR (right angle)	≤ 1.15 typ.	VSWR Winkelverbinder
Insertion loss	≤ 0.05 dB	Dämpfung
Insulation resistance	≥ 5x10 ³ MΩ	Isolationswiderstand
Center contact resistance	≤ 1.0 mΩ	Übergangswiderstand Innenleiter
Outer contact resistance	≤ 0.25 mΩ	Übergangswiderstand Außenleiter
Test voltage	2500 V rms	Prüfspannung
Working voltage	1400 V rms	Betriebsspannung
Power handling	typ. 1000 W/10 GHz/VSWR 1.0 typ. 700 W/2 GHz/VSWR 1.0	Leistungsbelastbarkeit
RF- leakage	≥ 128 dB up to 1 GHz	Schirmdämpfung
Intermodulation (3 rd order)	≤ - 115 dBm @ 2 x 20 W	Intermodulation (3. Ordnung)

Mechanical data		Mechanische Daten
Mating cycles	≥ 500	Steckzyklen
Coupling test torque	max. 1.7 Nm	Prüf- Anzugsdrehmoment
Recommended coupling torque	0.7 - 1.1 Nm	Empfohlenes Anzugsdrehmoment
Coupling nut retention	≥ 450 N	Überwurfmutter Haltekraft
Center contact captivation	axial: ≥ 28 N radial: ≥ 3 Ncm	Innenleiter Haltekraft

Environmental data		Umweltdaten
Temperature range	- 55°C - +155°C	Temperaturbereich
Thermal shock	US MIL- STD 202, Meth. 107, Cond. B	Temperaturzyklen
Vibration	US MIL- STD 202, Meth. 204, Cond. B	Vibration
Shock	US MIL- STD 202, Meth. 213, Cond. I	Schock
Moisture resistance	US MIL- STD 202, Meth. 106	Feuchtigkeitsbeständigkeit
Corrosion resistance	US MIL- STD 202, Meth. 101, Cond. B	Korrosionsbeständigkeit
Climatic class	IEC 60068 65/165/21	Klimaklasse

Materials		Materialien
Outer contact	CuZn	Außenleiter
Spring loaded contact parts	CuBe	Federnde Kontaktteile
Dielectric	PTFE	Dielektrikum
Crimping ferrule	Copper Alloy	Crimphülse
Gasket	Rubber	Dichtung
Plating outer contact area	Ni/white bronze	Oberfläche Kontaktzone Außenleiter
Plating center contact area	Au/Ag	Oberfläche Kontaktzone Innenleiter

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.

Cable Connectors - Semi- Rigid Cable

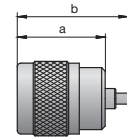
Kabel- Steckverbinder - Semi- Rigid- Kabel

Straight Plug, solder

Stecker gerade, löt

Semi- Rigid

Ordering Number	Remarks	Cable Group	Assembly Instruction	Packing Unit
53 S 101- 272 N3	a = 19.1; b = 24; solder tag silver plated	72	53 T	50
53 S 101- 273 B3	a = 24; b = 30; solder tag silver plated	73	53 T1	1

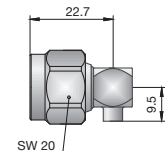
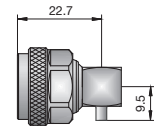


Right Angle Plug, solder

Winkelstecker, löt

Semi- Rigid

Ordering Number	Remarks	Cable Group	Assembly Instruction	Packing Unit
53 S 205- 271 N3	Solder tag silver plated	71	53 T11	50
53 S 206- 272 N3	Solder tag silver plated	72	53 T8	50

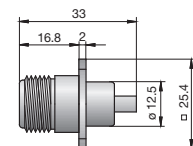


Panel Jack, solder, 4- hole flange

Gehäusekuppler, löt, 4- Loch- Flansch

Semi- Rigid

Ordering Number	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit
53 K 401- 272 N3	4 x Ø 3.4	72	53 T2	B 12	1

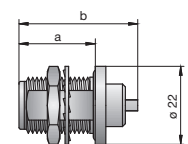


Panel Jack, solder, round flange

Gehäusekuppler, löt, Rundflansch

Semi- Rigid

Ordering Number	Version	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit
53 K 504- 271 N3	rear mount	a = 21.5; b = 33	71	53 T5	B 13	1
53 K 504- 272 N3	rear mount	a = 23; b = 32	72	53 T2	B 13	50
53 K 504- 273 N3	rear mount	a = 23; b = 33	73	53 T1	B 13	1



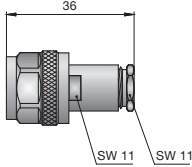
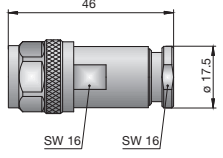
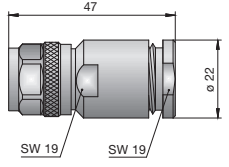
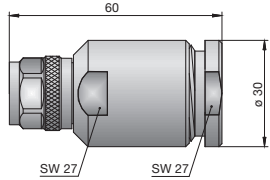
Cable Connectors - Flexible Cables

Kabelsteckverbinder Flexible Kabel

Straight Plug, clamp

Stecker gerade, klemm

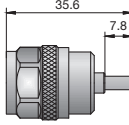
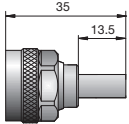
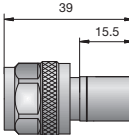
Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Packing Unit	
53 S 114-002 N3	captivated center contact	02, 03	53 B1	1	
53 S 114-006 N3	captivated center contact	06, 07, 08	53 B1	1	
53 S 102-015 N3	captivated center contact	15, 17	53 B	1	
53 S 108-021 N3		21	53 A	1	
53 S 108-022 N3		22	53 E	1	

Straight Plug, crimp

Stecker gerade, crimp

Flexible Cables

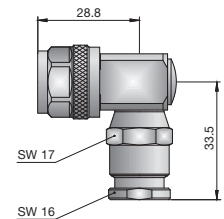
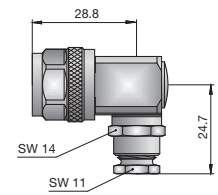
Ordering Number	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts	
53 S 107-802 N3	02	51 T	1, 100	11 W 150-402	
53 S 107-803 N3	03	51 T	1, 100	11 W 150-402	
53 S 107-106 N3	06	51 P10	1, 100	11 W 150-208	
53 S 107-108 N3	07, 08	51 P10	1, 100	11 W 150-208	
53 S 101-115 N3	15	53 O3	1	11 W 150-215	
53 S 101-117 N3	17	53 O3	1, 50	11 W 150-215	
53 S 101-1N9 N3	N9	53 W1	1	11 W 150-115	

Right Angle Plug, clamp

Winkelstecker, klemm

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit
53 S 204- 006 N3	06, 07, 08	53 M	50
53 S 201- 015 N3	15, 17	53 F	1

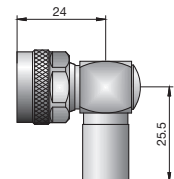
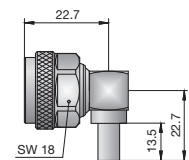


Right Angle Plug, solder crimp

Winkelstecker, löt- crimp

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts
53 S 205- 306 N3	06	53 S1	50	11 W 150- 108
53 S 205- 308 N3	07, 08	53 S1	50	11 W 150- 108
53 S 205- 315 N3	15	53 S5	50	11 W 150- 115
53 S 205- 317 N3	17	53 S5	50	11 W 150- 115

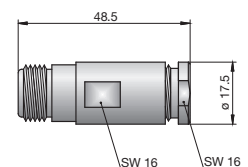
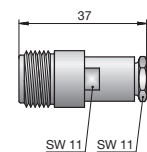


Straight Jack, clamp

Kuppler gerade, klemm

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit
53 K 114- 002 N3	02, 03	53 B1	1
53 K 114- 006 N3	06, 07, 08	53 B1	1
53 K 102- 015 N3	15, 17	53 B	1

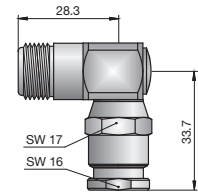


Right Angle Jack, clamp

Winkelkuppler, klemm

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit
53 K 201- 015 N3	15, 17	53 F	1

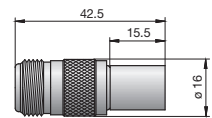
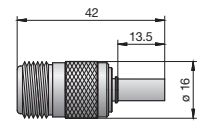


Straight Jack, crimp

Kuppler gerade, crimp

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts
53 K 107- 106 N3	06	53 P	1	11 W 150- 208
53 K 107- 108 N3	07, 08	53 P	1	11 W 150- 208
53 K 101- 115 N3	15	53 O3	1	11 W 150- 215
53 K 101- 117 N3	17	53 O3	1	11 W 150- 215

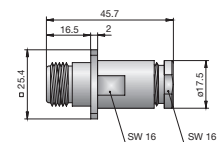
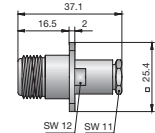


Panel Jack, clamp, 4- hole flange

Gehäusekuppler, klemm, 4- Loch- Flansch

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit
53 K 414- 002 N3	4 x Ø 3.4	02, 03	53 B1	B 12	1
53 K 414- 006 N3	4 x Ø 3.4	06, 07, 08	53 B1	B 12	1
53 K 402- 015 N3	4 x Ø 3.4	15, 17	53 B	B 12	1

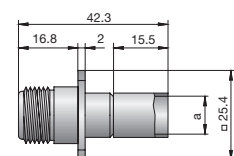
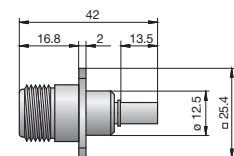


Panel Jack, crimp, 4- hole flange

Gehäusekuppler, crimp, 4- Loch- Flansch

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	Crimp Inserts
53 K 407- 106 N3	4 x Ø 3.4	06	53 P	B 12	1	11 W 150- 208
53 K 407- 108 N3	4 x Ø 3.4	07, 08	53 P	B 12	1	11 W 150- 208
53 K 401- 115 N3	4 x Ø 3.4; a = 10.7	15	53 O3	B 12	1	11 W 150- 215
53 K 401- 117 N3	4 x Ø 3.4; a = 11.2	17	53 O3	B 12	1	11 W 150- 215



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Panel Jack, crimp, round flange

Gehäusekuppler, crimp, Rundflansch

Flexible Cables

Ordering Number	Version	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	Crimp Inserts	
53 K 507- 802 N3	rear mount	02	51 T	B 13	1	11 W 150- 402	
53 K 507- 803 N3	rear mount	03	51 T	B 13	1	11 W 150- 402	
53 K 507- 106 N3	rear mount	06	53 P	B 13	1	11 W 150- 208	
53 K 507- 108 N3	rear mount	07, 08	53 P1	B 13	100	11 W 150- 208	
53 K 501- 115 N3	rear mount	15	53 O3	B 13	1	11 W 150- 215	
53 K 501- 117 N3	rear mount	17	53 O3	B 13	1, 50	11 W 150- 215	

Cable Connectors - Corrugated Cables

Kabelsteckverbinder Wellmantelkabel

Straight Plug

Stecker gerade

Corrugated Cables

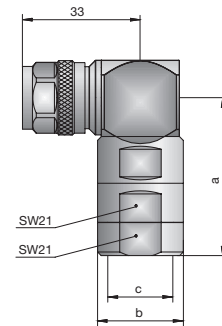
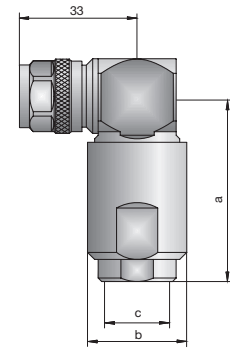
Ordering Number	Version	Remarks	Cable Group	Assembly Instruction	Packing Unit	
53 S 115- C09 N1	Spiral	1/4" S; a = 52; b Ø= 20; c Ø= 8.5	C09	60 I23	1	
53 S 115- C02 N1	Spiral	3/8" S; a = 71.2; b Ø= 24; c Ø= 11	C02	60 I28	1	
53 S 115- C08 N1	Spiral	1/2" S; a = 70; b Ø= 28; c Ø= 14	C08	60 I27	1	
53 S 115- C15 N1	Spiral	7/8" S; a = 68; b Ø= 38; c Ø= 28.3	C15	60 I24	1	
53 S 115- C01 N1	Circular	1/4" R; a = 61; b Ø= 24; c Ø= 10.4	C01	60 I30	1	
53 S 115- C03 N1	Circular	1/2" R; a = 65; b Ø= 24; c Ø= 16.5	C03	60 I18	1	
53 S 115- C05 N1	Circular	7/8" R; a = 76.4; b Ø= 35; c Ø= 28.5	C05	60 I25	1	
53 S 115- C06 N1	Circular	1 1/4" R; a = 107; b Ø= 52; c Ø= 40	C06	60 I26	1	
53 S 115- C07 N1	Circular	1 5/8" R; a = 116; b Ø= 63; c Ø= 51.6	C07	60 I26	1	

Right Angle Plug

Winkelstecker

Corrugated Cables

Ordering Number	Version	Remarks	Cable Group	Assembly Instruction	Packing Unit
53 S 215- C09 N1	Spiral	1/4" S; a = 36.8; b Ø= 20; c Ø= 8.5	C09	60 123	1
53 S 215- C02 N1	Spiral	3/8" S; a = 50.1; b Ø= 24; c Ø= 11	C02	60 128	1
53 S 215- C08 N1	Spiral	1/2" S; a = 52; b Ø= 28; c Ø= 14	C08	60 127	1
53 S 215- C15 N1	Spiral	7/8" S; a = 60; b Ø= 38; c Ø= 28.3	C15	60 124	1
53 S 215- C01 N1	Circular	1/4" R; a = 39.5; b Ø= 24; c Ø= 10.4	C01	60 130	1
53 S 215- C03 N1	Circular	1/2" R; a = 44.5; b Ø= 24; c Ø= 16.5	C03	60 118	1

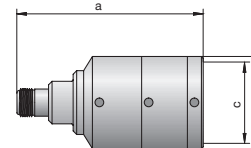
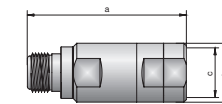
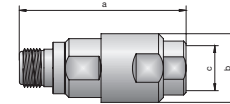


Straight Jack

Kuppler gerade

Corrugated Cables

Ordering Number	Version	Remarks	Cable Group	Assembly Instruction	Packing Unit
53 K 115- C09 N1	Spiral	1/4" S; a = 52; b Ø= 20; c Ø= 8.5	C09	60 123	1
53 K 115- C02 N1	Spiral	3/8" S; a = 71; b Ø= 24; c Ø= 11	C02	60 128	1
53 K 115- C08 N1	Spiral	1/2" S; a = 70.4; b Ø= 28; c Ø= 14	C08	60 127	1
53 K 115- C15 N1	Spiral	7/8" S; a = 66; b Ø= 38; c Ø= 28.3	C15	60 124	1
53 K 115- C01 N1	Circular	1/4" R; a = 61; b Ø= 24; c Ø= 10.4	C01	60 130	1
53 K 115- C03 N1	Circular	1/2" R; a = 64.8; b Ø= 24; c Ø= 16.5	C03	60 118	1
53 K 115- C05 N1	Circular	7/8" R; a = 74.3; b Ø= 35; c Ø= 28.5	C05	60 125	1
53 K 115- C06 N1	Circular	1 1/4" R; a = 106; b Ø= 52; c Ø= 40	C06	60 126	1
53 K 115- C07 N1	Circular	1 5/8" R; a = 115; b Ø= 63; c Ø= 51.6	C07	60 126	1



Panel Connectors - Solder End

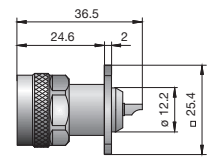
Gehäuse-Steckverbinder - Lötkelch

Panel Plug, 4-hole flange

Gehäusestecker, 4-Loch-Flansch

Solder End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit
53 S 401-200 N3	4 x Ø 3,4	B 12	25

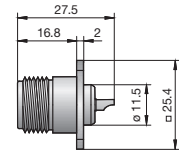


Panel Jack, 4-hole flange

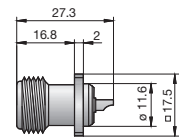
Gehäusekuppler, 4-Loch-Flansch

Solder End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit
53 K 401-200 N3	4 x Ø 3.4	B 12	50



53 K 403-200 N3	4 x Ø 3.2	B 101	50
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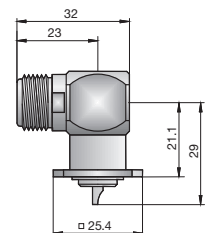


Right Angle Panel Jack, 4-hole flange

Gehäuse-Winkelkuppler, 4-Loch-Flansch

Solder End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit
53 K 201-200 N3	4 x Ø 3,4	B 12	1

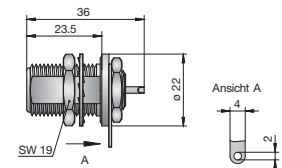
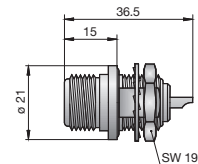


Panel Jack, round flange

Gehäusekuppler, Rundflansch

Solder End

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit
53 K 501-200 N3	front mount	pressurized	B 13	1
53 K 505-200 N3	rear mount		B 13	1



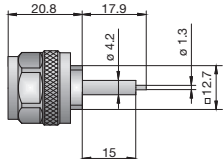
Panel Connectors - Coaxial End

Gehäuse-Steckverbinder - Koaxiales Ende

Panel Plug, 4-hole flange

Gehäusestecker, 4-Loch-Flansch

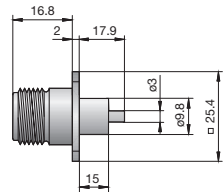
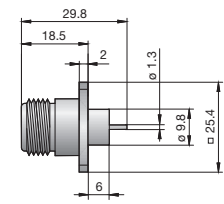
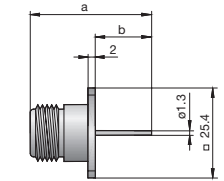
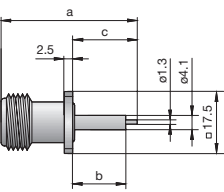
Coaxial End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
53 S 401-500 N3	4 x Ø 2.6	B 55a	1	

Panel Jack, 4-hole flange

Gehäusekuppler, 4-Loch-Flansch

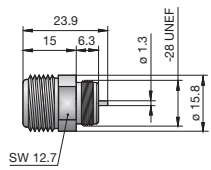
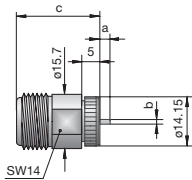
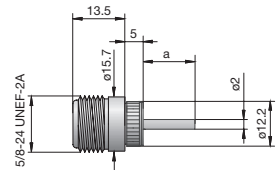
Coaxial End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
53 K 409-500 N3	4 x Ø 3.4	B 12	50	
53 K 406-500 N3	4 x Ø 3.4	B 12	50	
53 K 420-500 N3	a = 34.5; b = 16; 4 x Ø 3.4	B 12	50	
53 K 453-500 N3	a = 38.5; b = 20; 4 x Ø 3.4	B 12	50	
53 K 413-500 N3	a = 38.6; b = 15; c = 17.9; 4 x Ø 3.2	B 176	25	
53 K 461-500 N3	a = 34.7; b = 12; c = 14; 4 x Ø 3.2	B 176	50	
53 K 465-500 N3	a = 30.0; b = 5; c = 11.45; 4 x Ø 3.2	B 176	50	

Panel Jack, round flange

Gehäusekuppler, Rundflansch

Coaxial End

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
53 K 102-500 A3	Screw-in			1	
53 K 505-500 N3	Press-in	a = 3; b = 1.3; c = 23.8	B 136	50	
53 K 506-500 N3	Press-in	a = 2.5; b = 3; c = 24.8	B 136	50	
53 K 532-500 N3	Press-in	a = 13.5	B 135	50	
53 K 533-500 N3	Press-in	a = 6	B 135	50	

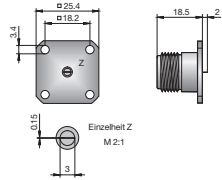
Panel Connectors - Stripline

Gehäuse-Steckverbinder - Stripline

Panel Jack, 4-hole flange

Gehäusekuppler, 4-Loch-Flansch

Stripline

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
53 K 405-600 N3	4 x Ø 3.4	B 12	25	

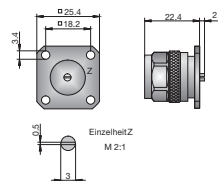
Panel Connectors - Microstrip

Gehäuse-Steckverbinder - Microstrip

Panel Plug, 4-hole flange

Gehäusestecker, 4-Loch-Flansch

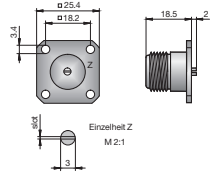
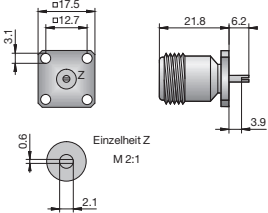
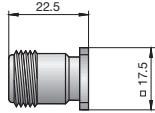
Microstrip

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
53 S 404-700 N3	4 x Ø 3.4	B 12	1	

Panel Jack, 4- hole flange

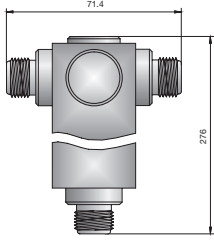
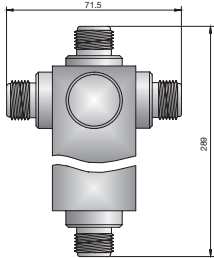
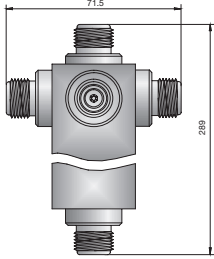
Gehäusekuppler, 4- Loch- Flansch

Microstrip

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
53 K 410- 700 N3	4 x Ø 3.4; slot 0.5	B 12	75	
53 K 401- 700 N3	4 x Ø 3.1	B 6	50	
53 K 401- 800 N3	4 x Ø 3.2; accepts SMA- transition pins, Ø 0.91	B 6	50	

Power Splitter - Wideband

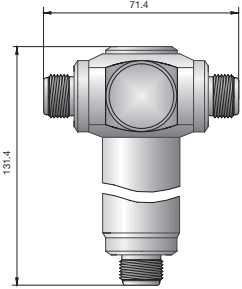
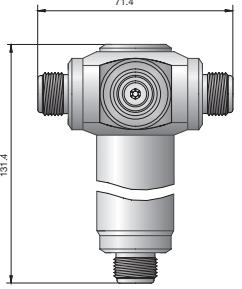
Leistungsteiler - Breitband

Power Splitter		Leistungsteiler		Wideband
Ordering Number	Version	Remarks	Packing Unit	
53 PK 12B- K00 N1	2- way	Return loss: ≥ 26 dB @ 800 MHz to 2.2 GHz Power max: 800 W	1	
53 PK 13B- K00 N1	3- way	Return loss: ≥ 26 dB @ 800 MHz to 2.2 GHz Power max: 800 W	1	
53 PK 14B- K00 N1	4- way	Return loss: ≥ 26 dB @ 800 MHz to 2.2 GHz Power max: 800 W	1	

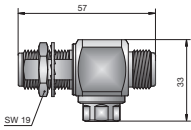
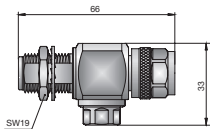
Power Splitter for WLAN

Leistungsteiler für WLAN


Wideband

Ordering Number	Version	Remarks	Packing Unit	
53 PK 125- K01 N1	2- way for WLAN	Return loss: ≥ 22 dB (≥ 24 dB @ 2.4 GHz and 5.8 GHz) Power max: 250 W	1	
53 PK 135- K00 N1	3- way for WLAN	Return loss: ≥ 21 dB (≥ 23 dB @ 2.4 GHz and 5.8 GHz) Power max: 250 W	1	

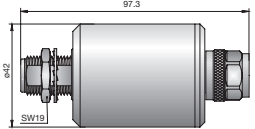
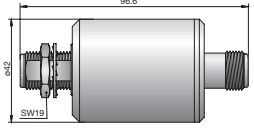
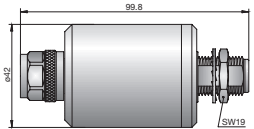
Lightning protection - Gas filled surge arrester
Surge Arrester
Blitzschutz - gasgefüllte Überspannungs- Ableiter
Überspannungs- Ableiter
Gas filled

Ordering Number	Version	Remarks	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	
53 BK 501- K00 N1	female - female	DC- 2500 MHz; discharge tube not included	MA 53MV- A001	B 13	1	
53 BK 501- S00 N1	female - male	DC- 2500 MHz; discharge tube not included	MA 53MV- A001	B 13	1	

Gas Discharge Tube
Ableiter- Patrone

Ordering Number	Remarks	Packing Unit	
53 Z B01- 090	Norm. sparkover voltage 90 V	1	
53 Z B01- 230	Norm. sparkover voltage 230 V	1	
53 Z B01- 350	Norm. sparkover voltage 350 V	1	

Lightning protection - Wideband
Surge Arrester
Blitzschutz - Breitband
Überspannungs- Ableiter
Wideband

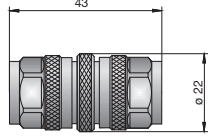
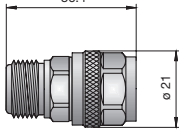
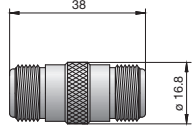
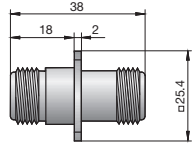
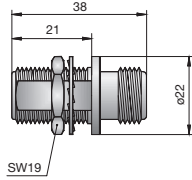
Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
53 HK 501- S00 N1	female - male	Grounded center contact 800- 2500 MHz	B 13	1	
53 HK 501- K00 N1	female - female	Grounded center contact 800- 2500 MHz	B 13	1	
53 HS 501- K00 N1	male - female	Grounded center contact 800- 2500 MHz	B 13	1	

Adaptors (In- Serie)

Adapter (In- Serie)

Straight Adaptor

Adapter gerade

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
53 S 101- S00 N3	straight	N male - male		1	
53 S 101- K00 N3	straight	N male - female		1	
53 K 101- K00 N3	straight	N female - female		1	
53 K 401- K00 N3	straight	N female - female; 4- hole flange, 4 x M 3.4	B 12	1	
53 K 503- K00 N3	straight	N female - female; round flange	B 13	1	
53 K 502- K00 N3	straight	N female - female; round flange, pressurized	B 13	1	

Right Angle Adaptor

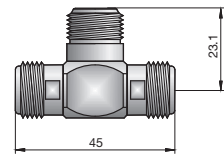
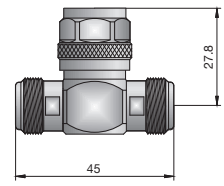
Winkel- Adapter

Ordering Number	Version	Remarks	Packing Unit	
53 S 201- K00 N3	right angle	N male - female	1	

T-Adaptor

T-Adapter

Ordering Number	Version	Remarks	Packing Unit
53 S 301- K00 N3	T-Adapter	N female - male - female	1
53 K 301- K00 N3	T-Adapter	N female - female - female	1



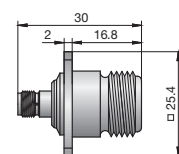
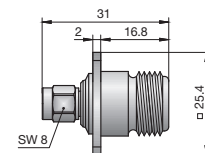
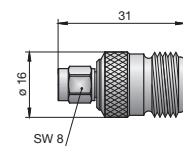
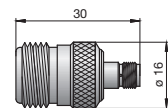
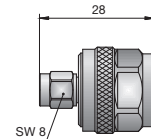
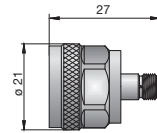
Adaptors (Between Series)

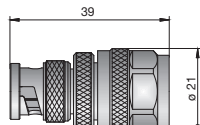
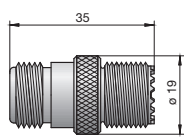
Adapter (serienübergreifend)

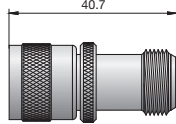
N - 50 Ω

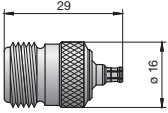
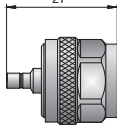
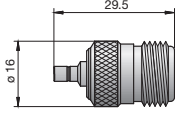
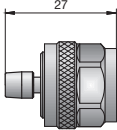
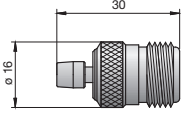
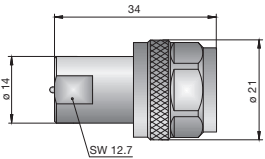
N - 50 Ω

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit
53 S 132- K00 E3	straight	N male - SMA female		1
32 S 153- S00 E3	straight	SMA male - N male		1
53 K 132- K00 E3	straight	N female - SMA female		1
32 S 153- K00 E3	straight	SMA male - N female		1
32 S 453- K00 E3	straight	SMA male - N female; 4- hole flange	B 12	1
32 K 453- K00 E3	straight	SMA female - N female; 4- hole flange	B 12	1



Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
53 S 151- K00 N3	straight	N male - BNC female		1	
53 K 151- K00 N3	straight	N female - BNC female		1	
51 S 153- K00 N4	straight	BNC male - N female		1	
51 S 153- S00 N4	straight	BNC male - N male		1	
53 S 156- K00 N3	straight	N male - TNC female		1	
56 S 153- K00 N4	straight	TNC male - N female		1	
53 K 156- K00 N3	straight	N female - TNC female		1	
56 S 453- K00 N4	straight	TNC male - N female; 4- hole flange	B 9	1	
53 S 154- S00 N3	straight	N male - UHF male		1	
53 S 154- K00 N3	straight	N male - UHF female		1	
53 K 154- K00 N3	straight	N female - UHF female		1	

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
54 S 153- K00 N3	straight	UHF male - N female		1	
53 S 152- K00 N3	straight	N male - C female		1	
52 S 153- K00 N3	straight	C male - N female		1	
53 S 160- S50 N1	straight	N male - 7- 16 male		1	
53 S 160- K50 N1	straight	N male - 7- 16 female		1	
53 K 160- K50 N1	straight	N female - 7- 16 female		1	
60 S 153- K50 N1	straight	7- 16 male - N female		1	
29 S 153- S00 Z3	straight	MCX male - N male		1	
29 S 153- K00 Z3	straight	MCX male - N female		1	
29 K 153- S00 Z3	straight	MCX female - N male		1	

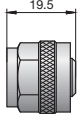
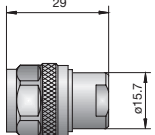
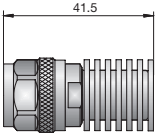
Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
29 K 153- K00 Z3	straight	MCX female - N female		1	
59 S 153- S00 E3	straight	SMB male - N male		1	
59 S 153- K00 E3	straight	SMB male - N female		1	
59 K 153- S00 E3	straight	SMB female - N male		1	
59 K 153- K00 E3	straight	SMB female - N female		1	
26 S 153- S00 A1	straight	FME male - N male		1	

Terminations

Abschlusswiderstände

Termination Plug

Abschlusswiderstand Stecker

Ordering Number	Remarks	Packing Unit	
53 S 1RR- 001 N3	1 W; Frequency DC - 4 GHz VSWR < 1.17 @ DC to 4 GHz	1	
53 S 17R- 001 N3	1 W; Frequency DC - 12.4 GHz VSWR < 1.05 @ DC to 1 GHz VSWR < 1.1 @ 1 to 2 GHz VSWR < 1.2 @ 2 to 4 GHz VSWR < 1.2 @ 4 to 12.4 GHz	1	
53 S 15R- 005 N3	5 W; Frequency DC - 3 GHz VSWR < 1.2 @ DC to 3 GHz	1	

Ordering Number	Remarks	Packing Unit	
53 S 15R-010 N3	10 W; Frequency DC - 3 GHz VSWR < 1.2 @ DC to 3 GHz	1	
53 S 17R-010 N3	10 W; Frequency DC - 10 GHz VSWR < 1.1 @ DC to 2 GHz VSWR < 1.19 @ 2 to 5 GHz VSWR < 1.5 @ 5 to 10 GHz	1	
53 S 15R-020 N3	20 W; Frequency DC - 3 GHz VSWR < 1.2 @ DC to 3 GHz	1	
53 S 17R-020 N3	10 W; Frequency DC - 10 GHz VSWR < 1.1 @ DC to 2 GHz VSWR < 1.19 @ 2 to 5 GHz VSWR < 1.5 @ 5 to 10 GHz	1	
53 S 17R-025 N3	25 W; Frequency DC - 5 GHz VSWR < 1.1 @ DC to 2 GHz VSWR < 1.15 @ 2 to 5 GHz	1	
53 S 17R-040 N3	40 W; Frequency DC - 5 GHz VSWR < 1.02 @ DC to 0.5 GHz VSWR < 1.04 @ 0.5 to 1 GHz VSWR < 1.1 @ 1 to 3 GHz VSWR < 1.15 @ 3 to 5 GHz	1	

Termination Jack

Abschlusswiderstand Kuppler

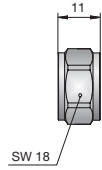
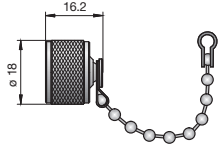
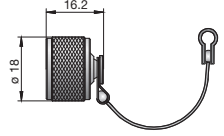
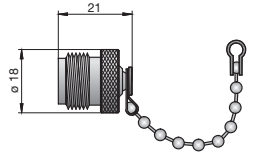
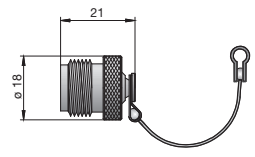
Ordering Number	Remarks	Packing Unit	
53 K 1RR-001 N3	1 W; Frequency DC - 4 GHz VSWR < 1.15 @ DC to 4 GHz	1	
53 K 15R-005 N3	5 W; Frequency DC - 3 GHz VSWR < 1.2 @ DC to 3 GHz	1	
53 K 15R-010 N3	10 W; Frequency DC - 3 GHz VSWR < 1.2 @ DC to 3 GHz	1	
53 K 17R-010 N3	10 W; Frequency DC - 10 GHz VSWR < 1.1 @ DC to 2 GHz VSWR < 1.19 @ 2 to 5 GHz VSWR < 1.5 @ 5 to 10 GHz	1	
53 K 15R-020 N3	20 W; Frequency DC - 3 GHz VSWR < 1.2 @ DC to 3 GHz	1	
53 K 17R-020 N3	20 W; Frequency DC - 10 GHz VSWR < 1.1 @ DC to 2 GHz VSWR < 1.19 @ 2 to 5 GHz VSWR < 1.5 @ 5 to 10 GHz	1	

Accessories

Zubehör

Protective Cap

Schutzkappe

Ordering Number	Remarks	Packing Unit	
53 Z 117-000 N	male without chain	1	
53 Z 112-000 N	male with chain	1	
53 Z 113-001 N	male with cord	1	
53 Z 115-000 N	female with chain	1	
53 Z 115-004 N	female with cord	1	

Shorting Cap Plug

Kurzschlusskappe Stecker

Ordering Number	Version	Packing Unit	
53 Z 111-000 N3	male	1	

N (75 Ω) - Robust Coaxial Connectors with Screw- locking System for Applications up to max. 6 GHz

N connectors are very robust, reliable classical connectors with screw-locking system in medium dimensions. N connectors are characterized by high degree of protection, weatherproofness and excellent intermodulation.

N 75 Ω connectors can be used maximum up to 6 GHz, recommended frequency range is approximately 1.5 GHz.

N 75 Ω connectors are fully intermateable with Rosenberger precision N 75 Ω connectors (RPC- N 75 Ω).

50 Ω and 75 Ω versions have center conductors of different dimensions and can not be mated.

Product Features

- Interface according to IEC 60169- 16, Appendix A
- Quality tested according to US MIL- STD 202
- Frequency range optimum up to 1.5 GHz, max.up to 6 GHz
- Insertion loss (straight connector): ≤ 0.1 dB
- Screw lock coupling system
- High degree of protection, weatherproof
- N 50 Ω and N 75 Ω versions are not intermateable - accidental damage
- N 75 Ω and N 75 Ω precision connectors are intermateable.

Product Range

- Cable connectors
- Panel connectors
- Adaptors.

Further connectors are available on request.

Application Examples

Signal and data transmission in radio and communication engineering.

N (75 Ω) - Robuste Koaxialsteckverbinder mit Schraub- Verbindung für Anwendungen bis max. 6 GHz

N-Steckverbinder zählen zu den robusten und zuverlässigen klassischen Steckverbindern in mittlerer Baugröße mit Schraub- Befestigung. Ein hoher Grad an Reflexionsfreiheit sowie Witterungsbeständigkeit und gute Intermodulation zeichnet diese Serie aus.

N- 75- Ω- Steckverbinder können bis max. 6 GHz eingesetzt werden, empfohlener Frequenzbereich ist bis zu 1,5 GHz.

Standard- und Präzisionsausführung von N- 75- Ω- Steckverbindern sind voll steckkompatibel.

50- Ω- und 75- Ω- Versionen haben Innenleiter mit verschiedenen Durchmessern und können deshalb nicht miteinander gekoppelt werden.

Produkteigenschaften

- Interface gemäß IEC 60169- 16, Appendix A
- Qualitätsprüfung gemäß US MIL- STD 202
- Frequenzbereich optimal bis 1,5 GHz, max. bis zu 6 GHz
- Insertion Loss (gerader Steckverbinder): $\leq 0,1$ dB
- Schraub- Verschluss
- Hoher Schutzgrad, sehr witterungsbeständig
- N- 50- Ω- und N- 75- Ω- Varianten sind **nicht** steckkompatibel - Zerstörung möglich
- N- 75- Ω- und N- 75- Ω- Präzisionssteckverbinder sind steckkompatibel.

Produktspektrum

- Kabelsteckverbinder (gerade und gewinkelt)
- Gehäuse- Steckverbinder
- Adapter.

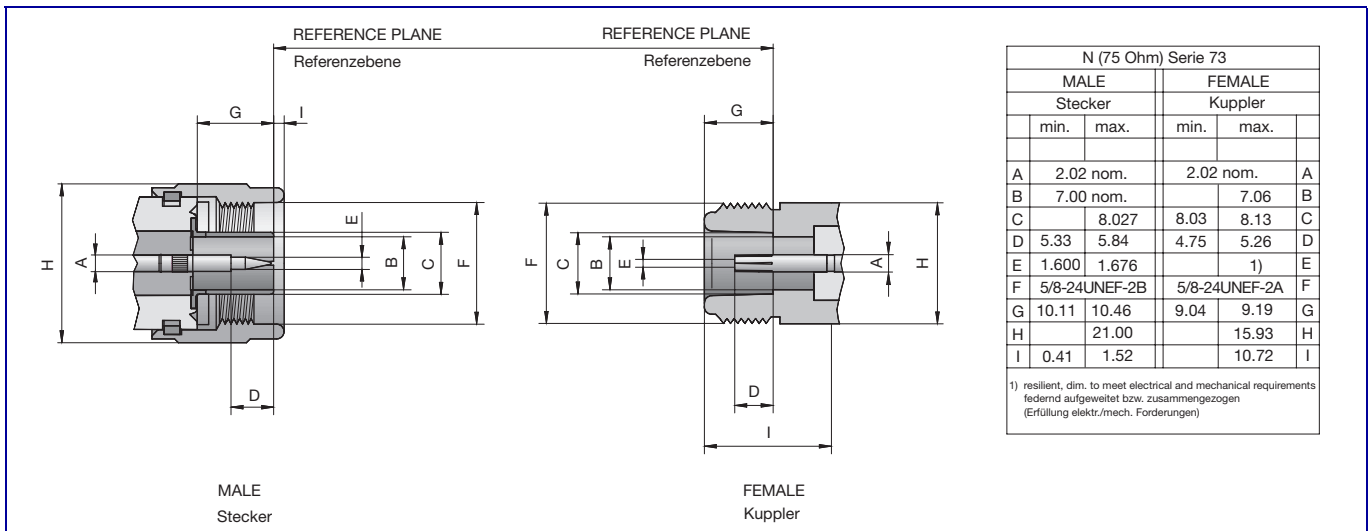
Weitere Steckverbinder auf Anfrage erhältlich.

Anwendungsbeispiele

Signal- und Datenübertragung in der Funk- und Nachrichtentechnik.

Interface Dimensions

Anschlussmaße



Technical Data

Technische Daten

Applicable standards		Anwendbare Standards
Interface according to	IEC 60169- 16 (Appendix A)	Interface gemäß
Quality tested according to	US MIL- STD 202	Qualitätsprüfung gemäß

Electrical data		Elektrische Daten
Impedance	75 Ω	Wellenwiderstand
Frequency range	DC to 6 GHz	Frequenzbereich
Insertion loss	≤ 0.1 dB	Dämpfung
Insulation resistance	≥ 5x10 ³ MΩ	Isolationswiderstand
Center contact resistance	≤ 1.5 mΩ	Übergangswiderstand Innenleiter
Outer contact resistance	≤ 0.25 mΩ	Übergangswiderstand Außenleiter
Test voltage	2500 V rms	Prüfspannung
Working voltage	1400 V rms	Betriebsspannung
RF- leakage	≥ 128 dB up to 1 GHz	Schirmdämpfung

Mechanical data		Mechanische Daten
Mating cycles	≥ 500	Steckzyklen
Coupling test torque	max. 1.7 Nm	Prüf- Anzugsdrehmoment
Recommended coupling torque	0.7 - 1.1 Nm	Empfohlenes Anzugsdrehmoment
Coupling nut retention	≥ 450 N	Überwurfmutter Haltekraft
Center contact captivation	axial: ≥ 28 N radial: ≥ 3 Ncm	Innenleiter Haltekraft

Environmental data		Umweltdaten
Temperature range	- 65°C - +165°C	Temperaturbereich
Thermal shock	US MIL- STD 202, Meth. 107, Cond. B	Temperaturzyklen
Vibration	US MIL- STD 202, Meth. 204, Cond. B	Vibration
Shock	US MIL- STD 202, Meth. 213, Cond. I	Schock
Moisture resistance	US MIL- STD 202, Meth. 106	Feuchtigkeitsbeständigkeit
Corrosion resistance	US MIL- STD 202, Meth. 101, Cond. B	Korrosionsbeständigkeit

Materials		Materialien
Outer contact	CuZn	Außenleiter
Spring loaded contact parts	CuBe	Federnde Kontaktteile
Dielectric	PTFE	Dielektrikum
Crimping ferrule	Copper Alloy	Crimphülse
Gasket	Rubber	Dichtung
Plating outer contact area	Ni/white bronze	Oberfläche Kontaktzone Außenleiter
Plating center contact area	Au/Ag	Oberfläche Kontaktzone Innenleiter

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.

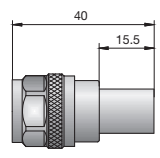
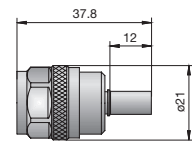
Cable Connectors - Flexible Cables

Kabel-Steckverbinder - Flexible Kabel

Straight Plug, crimp

Stecker, gerade, crimp

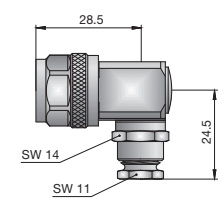
Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts	
73 S 101-118 N3	18	53 O	1	11 W 150-218	
73 S 104-109 N3	09	53 P	1	11 W 150-209	

Right Angle Plug, clamp

Winkelstecker, clamp

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	
73 S 206-009 N3	09	53 M	1	

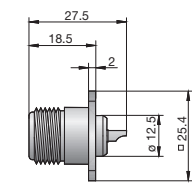
Panel Connectors - Solder End

Gehäuse-Steckverbinder - Lötkech

Panel Jack, 4-hole flange

Gehäusekuppler, 4-Loch-Flansch

Solder End

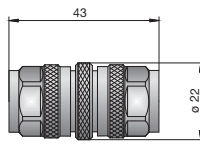
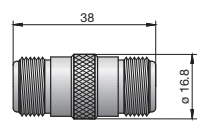
Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
73 K 401-200 N3	4 x Ø 3.4	B 12	50	

Adaptors (In- Serie)

Adapter (In- Serie)

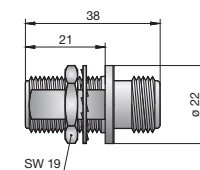
Straight Adaptor

Adapter gerade

Ordering Number	Version	Remarks	Packing Unit	
73 S 101- S00 N3	straight	N male - male	1	
73 K 101- K00 N3	straight	N female - female	1	

Panel Adaptor

Gehäuse- Adapter

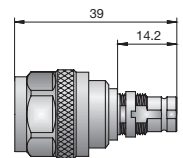
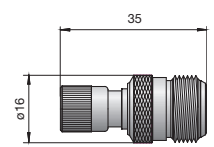
Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
73 K 501- K00 N3	straight	N female - female; round flange	B 13	1	

Adaptors (Between Series)

Adapter (serienübergreifend)

N - 75 Ω

N - 75 Ω

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
73 S 188- K00 H3	straight	N 75 Ω male - 1.6- 5.6 female	B 27	1	
88 S 173- K00 H3	straight, Type A (screw- on coupling)	1.6- 5.6 male - N 75 Ωfemale		1	
71 S 173- K00 N4	straight	BNC male 75 Ω - N female 75 Ω		1	