

BNC (50 Ω) - Coaxial Connectors with Bayonet Coupling Mechanism for Applications up to 4 GHz

BNC connectors belong to the most commonly used and widespread connector series for data system and telecom applications with an optimum frequency up to 4 GHz (max. 10 GHz).

Characteristic features are reliable quality standard as well as fast and easy connections with a two stud bayonet coupling mechanism.

50 Ω and 75 Ω versions can be interconnected without restriction.

Product Features

- Interface according to IEC 60169- 8, CECC 22 120, MIL- PRF- 39012 VG 95200
- Quality tested according to US MIL- STD 202
- Frequency range optimum up to 4 GHz, max. up to 10 GHz
- VSWR (straight connector): ≤ 1.20 typ.
- Bayonet coupling mechanism
- Intermateable with BNC, 75 Ω version.

Product Range

- Cable connectors (straight and right angle) for flexible, semi- flex and semi- rigid cables
- PCB connectors (straight and right angle)
- Panel connectors in various flanges
- Gas- tight versions
- Adaptors
- Terminations
- Accessories.

Further connectors are available on request.

Application Examples

The most commonly used and widespread connector series for various applications in data systems and telecommunication.

BNC (50 Ω) - Koaxialsteckverbinder mit Bajonett- Verschluss für Anwendungen bis 4 GHz

BNC- Steckverbinder zählen zu den in Datentechnik und Telekommunikation weltweit am häufigsten eingesetzten Steckverbindern.

Der Frequenzbereich reicht optimal bis zu 4 GHz (max. 10 GHz).

Zuverlässiger Qualitätsstandard sowie schnelles und einfaches Verbinden mit dem 2- nockigen Bajonett- Verschluss sind charakteristisch für diese Standard- Serie.

50- Ω- und 75- Ω- Typen sind uneingeschränkt miteinander koppelbar.

Produkteigenschaften

- Interface gemäß IEC 60169- 8, CECC 22 120, MIL- PRF- 39012 VG 95200
- Qualitätsprüfung gemäß US MIL- STD 202
- Frequenzbereich optimal bis 4 GHz, max. bis zu 10 GHz
- VSWR (gerader Steckverbinder): ≤ 1,20 typ.
- Bajonett- Verschluss
- Steckkompatibel mit BNC, 75- Ω- Variante.

Produktspektrum

- Kabelsteckverbinder (gerade und gewinkelt) für flexible, Semi- Flex- und Semi- Rigid- Kabel
- Leiterplatten- Steckverbinder (gerade und gewinkelt)
- Gehäuse- Steckverbinder in verschiedenen Flanschen
- Druckdichte Ausführungen
- Adapter
- Abschlusswiderstände
- Zubehör.

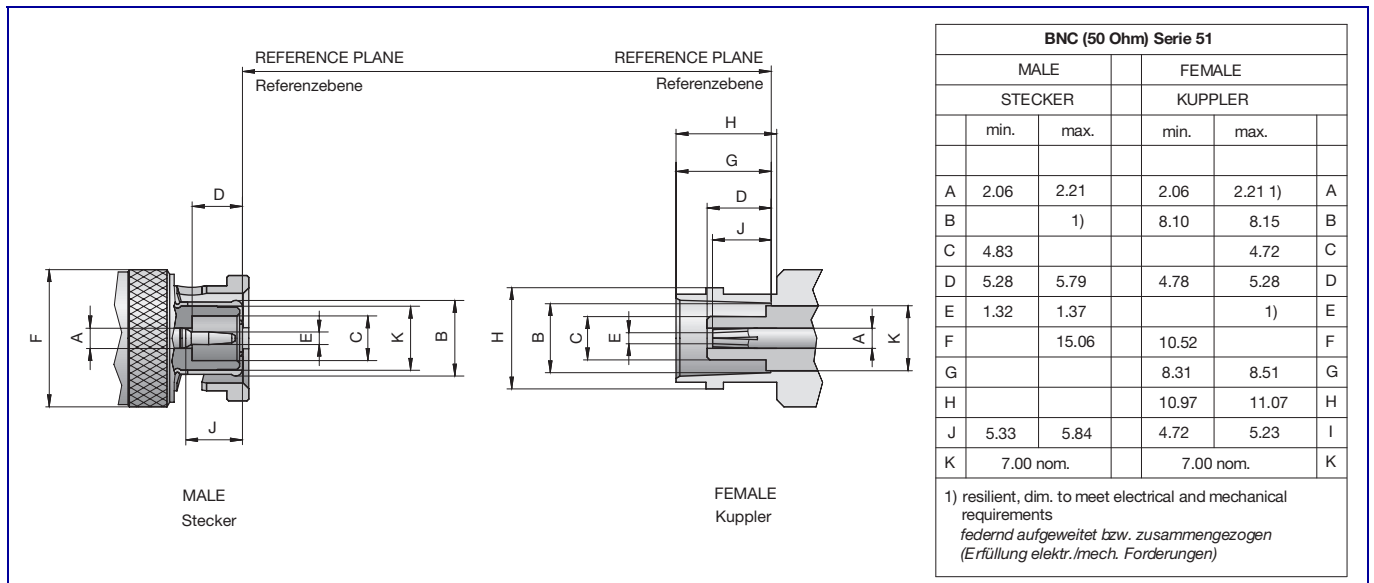
Weitere Steckverbinder auf Anfrage erhältlich.

Anwendungsbeispiele

Weit verbreitete Standard- Koaxial- Steckverbinderserie mit vielfältigen Einsatzmöglichkeiten in der Datentechnik und Telekommunikation.

Interface Dimensions

Anschlussmaße



Technical Data

Technische Daten

Applicable standards		Anwendbare Standards
Interface according to	IEC 60169-8, MIL- PRF- 39012, VG 95200, CECC 22120	Interface gemäß
Quality tested according to	US MIL- STD 202	Qualitätsprüfung gemäß

Electrical data		Elektrische Daten
Impedance	50 Ω	Wellenwiderstand
Frequency range	max. 0...10 GHz opt. 0...4 GHz	Frequenzbereich
VSWR	≤ 1.20 typ.	VSWR
Insertion loss	≤ 0.1 x √ f (GHz) dB	Dämpfung
Insulation resistance	≥ 5 x 10 ³ MΩ	Isolationswiderstand
Center contact resistance	≤ 1.5 mΩ	Übergangswiderstand Innenleiter
Outer contact resistance	≤ 1 mΩ	Übergangswiderstand Außenleiter
Test voltage	1500 V rms	Prüfspannung
Working voltage	400 V rms	Betriebsspannung
Power handling	≤ 80 W (2GHz)	Leistungsbelastbarkeit

Mechanical data		Mechanische Daten
Mating cycles	≥ 500	Steckzyklen
Center contact captivation	axial: ≥ 27 N	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
Climatic class	IEC 60068 65/165/21	Klimaklasse
Shock	US MIL- STD 202, Meth. 213, Cond. G	Schock
Corrosion resistance	US MIL- STD 202 Meth. 101, Cond. B	Korrosionsbeständigkeit
Degree of protection (mated pair)	IEC 60529	Schutzgrad für gekoppeltes Paar

Materials		Materialien
Body, outer contact	CuZn	Gehäuse, Außenleiter
Spring loaded contact parts	CuBe / CuSn	Federnde Kontaktteile
Pin contacts	CuZn	Stiftkontakte
Dielectric	PTFE	Dielektrikum
Crimping ferrule	Copper Alloy	Crimphülse
Gasket	Rubber	Dichtung
Plating outer contact	Ni/white bronze	Oberfläche Außenleiter
Plating center contact	Au	Oberfläche 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

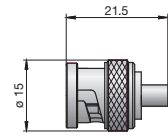
Kabel-Steckverbinder - Semi-Rigid-Kabel

Straight Plug, solder

Stecker gerade, löt

Semi-Rigid

Ordering Number	Cable Group	Assembly Instruction	Packing Unit
51 S 101-272 B4	72	51 S2	1

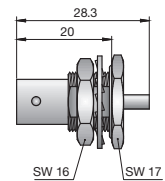


Panel Jack, solder, hexagonal flange

Gehäusekuppler, löt, 6-kant-Flansch

Semi-Rigid

Ordering Number	Version	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit
51 K 611-271 N4	rear mount	71	51 S1	B 3	1
51 K 611-272 N4	rear mount	72	51 S2	B 3	1



Cable Connectors - Flexible Cables

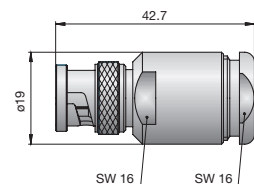
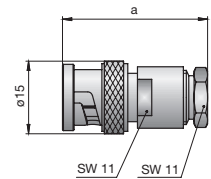
Kabel-Steckverbinder - Flexible Kabel

Straight Plug, clamp

Stecker gerade, klemm

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Packing Unit
51 S 101-006 N4	a = 26.5	06, 07, 08	51 A	1
51 S 104-006 N4	A3 7x50 VG 95220; a = 31.8	06, 07, 08	51 C	1
51 S 106-001 N4	captivated center contact; a = 28.5	01	51 E	1
51 S 106-002 N4	captivated center contact; a = 28.0	02, 03	51 E	1
51 S 106-006 N4	captivated center contact; a = 28.0	06, 07, 08	51 E	1
51 S 105-015 N4		15, 17	51 D	1

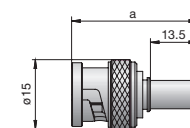
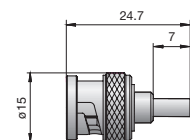


Straight Plug, crimp

Stecker gerade, crimp

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts
51 S 107-801 N4		01	51 T	100	11 W 150-402
51 S 107-802 N4		02	51 T	1, 100	11 W 150-402
51 S 107-803 N4		03	51 T	100	11 W 150-402
51 S 107-106 N4	a = 29	06	51 P10	1, 100	11 W 150-208
51 S 103-106 N4	CuBe outer contact; a = 31	06	51 P1	1	11 W 150-206
51 S 107-108 N4	a = 29	07, 08	51 P10	1, 100	11 W 150-208
51 S 101-115 N4	a = 43	15	51 O	1	11 W 150-215
51 S 101-117 N4	a = 43	17	51 O	1	11 W 150-215
51 S 101-1M4 N4	a = 27.7	M4	51 P1	100	11 W 150-204

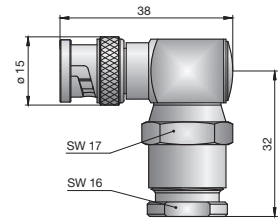
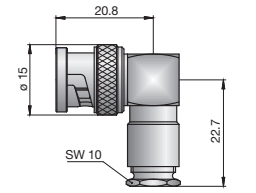


Right Angle Plug, clamp

Winkelstecker, klemm

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit
51 S 201-002 N4	02, 03	51 L	1
51 S 201-006 N4	06, 07, 08	51 L	1
51 S 201-015 N4	15, 17	53 F1	1

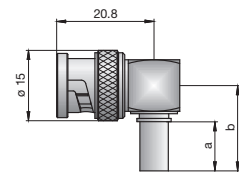


Right Angle Plug, solder crimp

Winkelstecker, löt-crimp

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts
51 S 207-302 N4	a = 7.0; b = 14.7	02	51 M2	100	11 W 150-102
51 S 207-303 N4	a = 7.0; b = 14.7	03	51 M2	100	11 W 150-102
51 S 207-306 N4	a = 13.5; b = 21.2	06	51 M	100	11 W 150-108
51 S 207-308 N4	a = 13.5; b = 21.2	07, 08	51 M	100	11 W 150-108

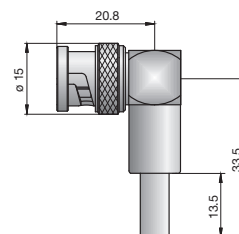


Right Angle Plug, crimp

Winkelstecker, crimp

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts
51 S 207-106 N4	06	51 N	1	11 W 150-208
51 S 207-108 N4	07, 08	51 N	1	11 W 150-208

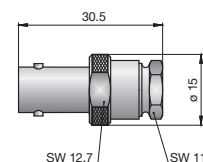


Straight Jack, clamp

Kuppler gerade, klemm

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit
51 K 106-002 N4	01	51 E	1
51 K 106-006 N4	01	51 E	1



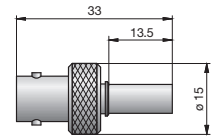
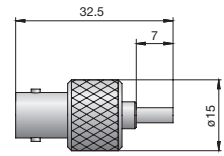
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Straight Jack, crimp

Kuppler gerade, crimp

Flexible Cables

Ordering Number	Cable Group	Assembly Instruction	Packing Unit	Crimp Inserts
51 K 107-801 N4	01	51 T	50	11 W 150-402
51 K 107-802 N4	02	51 T	50	11 W 150-402
51 K 107-803 N4	03	51 T	50	11 W 150-402
51 K 107-106 N4	06	51 P1	1	11 W 150-208
51 K 107-108 N4	07, 08	51 P1	1	11 W 150-208

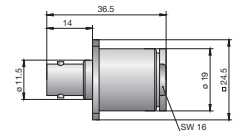
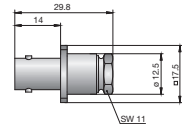


Panel Jack, clamp, 4- hole flange

Gehäusekuppler, klemm, 4- Loch- Flansch

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit
51 K 406-006 N4	4 x 3- 56 UNF	06, 07, 08	51 E	B 6	1
51 K 405-015 N4	4 x 6- 32 UNC	15, 17	51 D	B 9	1

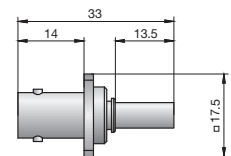
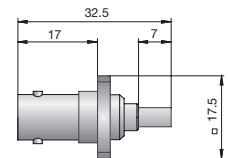


Panel Jack, crimp, 4- hole flange

Gehäusekuppler, crimp, 4- Loch- Flansch

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	Crimp Inserts
51 K 407-801 N4	4 x M 2.5	01	51 T	B 101	100	11 W 150-402
51 K 407-802 N4	4 x M 2.5	02	51 T	B 101	100	11 W 150-402
51 K 407-803 N4	4 x M 2.5	03	51 T	B 101	100	11 W 150-402
51 K 407-106 N4	4 x 3- 56 UNF	06	51 P1	B 101	1	11 W 150-206
51 K 407-108 N4	4 x 3- 56 UNF	07, 08	51 P1	B 101	1	11 W 150-208

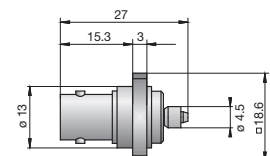


Panel Jack, solder-crimp insulated, 4- hole flange

Gehäusekuppler, löt-crimp isoliert, 4- Loch- Flansch

Flexible Cables

Ordering Number	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit
51 K 440-302 N4	4 x Ø 2.7	02	51 V	B 101a	1

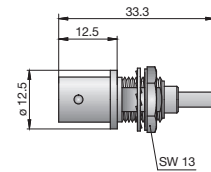


Panel Jack, crimp, round flange

Gehäusekuppler, crimp, Rundflansch

Flexible Cables

Ordering Number	Version	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	Crimp Inserts
51 K 507- 801 N4	front mount	01	51 T	B 2	100	11 W 150- 402
51 K 507- 802 N4	front mount	02	51 T	B 2	100	11 W 150- 402
51 K 507- 803 N4	front mount	03	51 T	B 2	100	11 W 150- 402

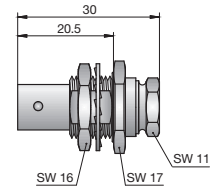


Panel Jack, clamp, hexagonal flange

Gehäusekuppler, klemm, 6- kant- Flansch

Flexible Cables

Ordering Number	Version	Remarks	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit
51 K 606- 001 N4	rear mount	captivated center contact	01	51 E	B 3	1
51 K 606- 002 N4	rear mount	captivated center contact	02, 03	51 E	B 3	1
51 K 606- 006 N4	rear mount	captivated center contact	06, 07, 08	51 E	B 3	1

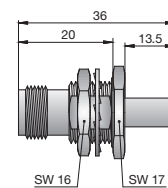
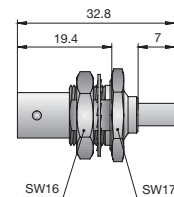


Panel Jack, crimp, hexagonal flange

Gehäusekuppler, crimp, 6- kant- Flansch

Flexible Cables

Ordering Number	Version	Cable Group	Assembly Instruction	Panel Piercing / PCB Layout	Packing Unit	Crimp Inserts
51 K 607- 801 N4	rear mount	01	51 T3	B 3	100	11 W 150- 402
51 K 607- 802 N4	rear mount	02	51 T	B 3	100	11 W 150- 402
51 K 607- 803 N4	rear mount	03	51 T	B 3	100	11 W 150- 402
51 K 607- 106 N4	rear mount	06	51 P10	B 3	1	11 W 150- 208
51 K 607- 108 N4	rear mount	07, 08	51 P10	B 3	100	11 W 150- 208



Panel Connectors - Coaxial End

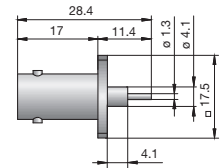
Gehäuse-Steckverbinder - Koaxiales Ende

Panel Jack, 4- hole flange

Gehäusekuppler, 4- Loch- Flansch

Coaxial End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit
51 K 405- 500 N4	4 x dia. 3.2	B 6	1



Panel Connectors - Solder End

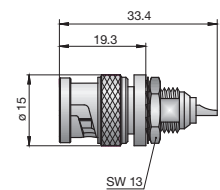
Gehäuse-Steckverbinder - Lötkelch

Panel Plug, round flange

Gehäusestecker, Rundflansch

Solder End

Ordering Number	Version	Panel Piercing / PCB Layout	Packing Unit
51 S 501- 200 N4	front mount	B 2	1

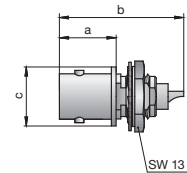


Panel Jack, round flange

Gehäusekuppler, Rundflansch

Solder End

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit
51 K 501- 200 N4	front mount	a = 13.8; b = 26; c = 14.4	B 1	100
51 K 502- 200 N4	front mount	a = 12.5; b = 26; c = 12.7	B 5	100
51 K 503- 200 N4	front mount	a = 12.5; b = 26; c = 14	B 18	100
51 K 504- 200 N4	front mount	a = 12; b = 26; c = 12.5	B 2	100
51 K 506- 200 N4	front mount	a = 12; b = 30; c = 12.5	B 2	1, 100
51 K 507- 200 N4	front mount	a = 14; b = 29; c = 15; pressurized	B 2	1
51 K 508- 200 N4	front mount	a = 14; b = 33; c = 15; pressurized	B 1	1
51 K 516- 200 B1	front mount	a = 12; b = 26; c = 12.5; with solder tags	B 2	100

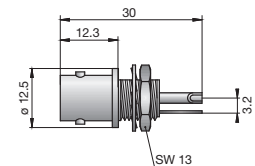
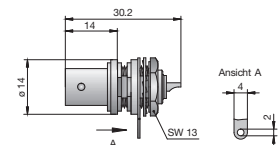


Panel Jack, insulated, round flange

Gehäusekuppler, isoliert, Rundflansch

Solder End

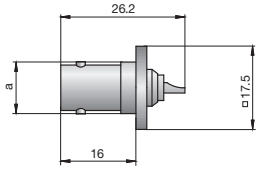
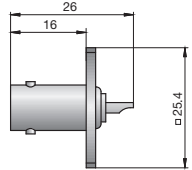
Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit
51 K 546- 200 N4	front mount	51 K 506- 200 N4 with insulation washers and solder tag	B 3	100
51 K 553- 200 N4	front mount		B 2	1



Panel Jack, 4- hole flange

Gehäusekuppler, 4- Loch- Flansch

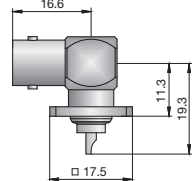
Solder End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
51 K 403- 200 N4	4 x 3- 56 UNF, rim \varnothing a = 11.5	B 6	50	
51 K 404- 200 N4	4 x \varnothing 3.1, no rim	B 6	1	
51 K 409- 200 N4	4 x \varnothing 3.4	B 9	1	

Right Angle Panel Jack, 4- hole flange

Flansch- Winkelkuppler, 4- Loch- Flansch

Solder End

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
51 K 201- 200 N4	4 x \varnothing 3.1	B 6	1	

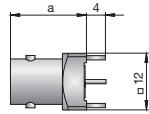
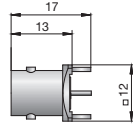
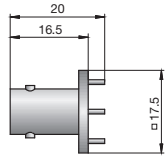
PCB Connectors - Solder Pin

Leiterplatten-Steckverbinder - Löt-Pin

Straight Jack, PCB

Leiterplatten-Kuppler gerade

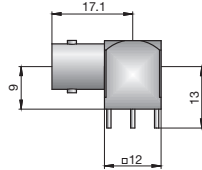
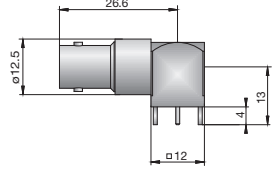
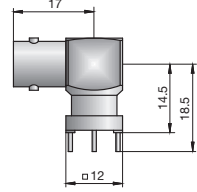
Solder Pin

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
51 K 101-400 A4	a = 15	B 32	50 blister	
51 K 104-400 A4		B 32	50 blister	
51 K 102-400 A4		B 33	100	

Right Angle Jack, PCB

Leiterplatten-Winkelkuppler

Solder Pin

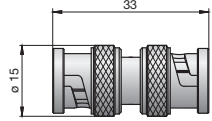
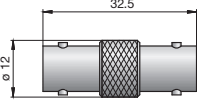
Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
51 K 201-400 A4		B 32	50 blister	
51 K 204-400 A4	Ø 12.5 insulation sleeve	B 32	25 blister	
51 K 205-40T A4	tinned solder tags	B 32	25	

Adaptors (In- Serie)

Adapter (In- Serie)

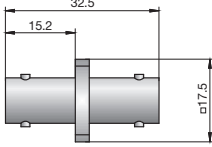
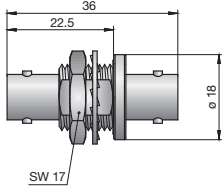
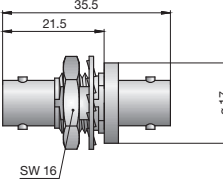
Straight Adaptor

Adapter gerade

Ordering Number	Version	Remarks	Packing Unit	
51 S 101- S00 N4	straight	BNC male - male	1	
51 K 101- K00 N4	straight	BNC female - female	1	

Panel Adaptor

Gehäuse- Adapter

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
51 K 401- K00 N4	straight	BNC female - female; 4- hole flange	B 6	1	
51 K 501- K00 N4	straight	BNC female - female; round flange, pressurized	B 3	1	
51 K 542- K00 A4	straight	BNC female - female; round flange, insulated	B 3	1	

Right Angle Adaptor

Winkel- Adapter

Ordering Number	Version	Remarks	Packing Unit	
51 S 201- K00 N4	right angle	BNC male - female	1	

T- Adaptor

T- Adapter

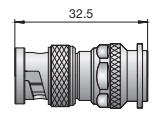
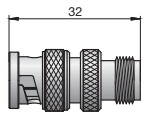
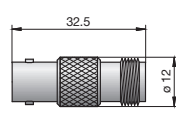
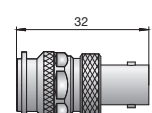
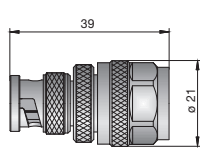
Ordering Number	Version	Remarks	Packing Unit	
51 S 301- K00 N4	T-Adapter	BNC female - female - female	1	
51 S 303- K00 N4	T-Adapter	BNC male - female - female	1	
51 K 301- K00 N4	T-Adapter	BNC female - female - female	1	

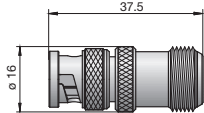
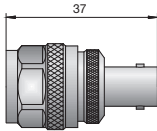
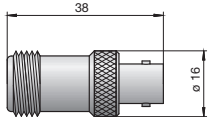
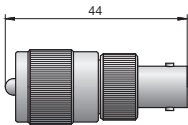
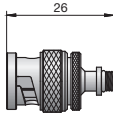
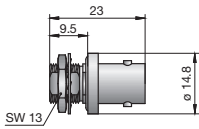
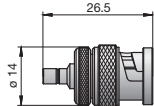
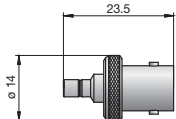
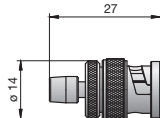
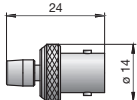
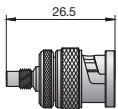
Adaptors (Between Series)

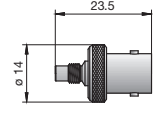
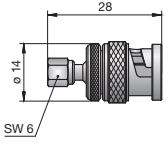
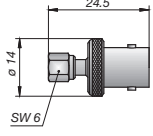
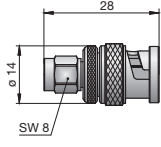
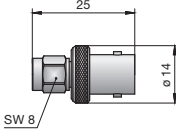
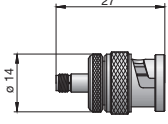
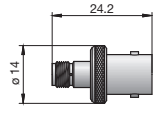
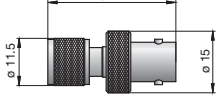
Adapter (serienübergreifend)

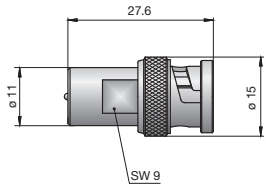
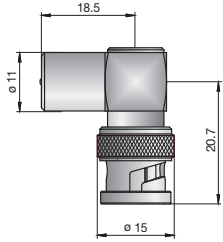
BNC - 50 Ω

BNC - 50 Ω

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
51 S 156- S00 N4	straight	BNC male - TNC male		1	
51 S 156- K00 N4	straight	BNC male - TNC female		1	
51 K 156- K00 N4	straight	BNC female - TNC female		1	
56 S 151- K00 N4	straight	TNC male - BNC female		1	
51 S 153- S00 N4	straight	BNC male - N male		1	

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
51 S 153- K00 N4	straight	BNC male - N female		1	
53 S 151- K00 N3	straight	N male - BNC female		1	
53 K 151- K00 N3	straight	N female - BNC female		1	
54 S 151- K00 A1	straight	UHF male - BNC female		1	
51 S 131- K00 N4	straight	BNC male - Microdot female		1	
29 K 551- K00 A3	straight	MCX female - BNC female; round flange	B 2	1	
59 S 151- S00 E3	straight	SMB male - BNC male		1	
59 S 151- K00 E3	straight	SMB male - BNC female		1	
59 K 151- S00 E3	straight	SMB female - BNC male		1	
59 K 151- K00 E3	straight	SMB female - BNC female		1	
39 S 151- S00 E3	straight	SMC male - BNC male		1	

Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
39 S 151- K00 E3	straight	SMC male - BNC female		1	
39 K 151- S00 E3	straight	SMC female - BNC male		1	
39 K 151- K00 E3	straight	SMC female - BNC female		1	
32 S 151- S00 E3	straight	SMA male - BNC male		1	
32 S 151- K00 E3	straight	SMA male - BNC female		1	
32 K 151- S00 E3	straight	SMA female - BNC male		1	
32 K 151- K00 E3	straight	SMA female - BNC female		1	
24 S 151- K00 A1	straight	Mini- UHF male - BNC female		1	

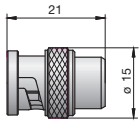
Ordering Number	Version	Remarks	Panel Piercing / PCB Layout	Packing Unit	
26 S 151- S00 A1	straight	FME male - BNC male		1	
26 S 251- S00 A1	right angle	FME male - BNC male		1	

Terminations

Abschlusswiderstände

Termination Plug

Abschlusswiderstand Stecker

Ordering Number	Remarks	Packing Unit	
51 S 1RR-001 N4	1 W; Frequency DC - 2 GHz VSWR < 1.2 @ DC to 1 GHz VSWR < 1.4 @ 1 to 2 GHz	1	

Termination Jack

Abschlusswiderstand Kuppler

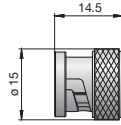
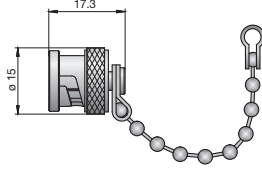
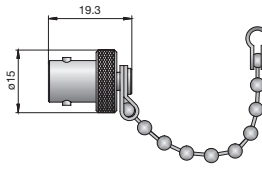
Ordering Number	Remarks	Packing Unit	
51 K 1RR-001 N4	1 W; Frequency DC - 2 GHz VSWR < 1.2 @ DC to 1 GHz VSWR < 1.4 @ 1 to 2 GHz	1	

Accessories

Zubehör

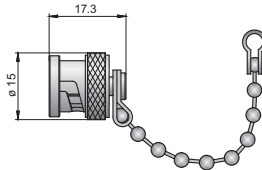
Protection Cap

Schutzkappe

Ordering Number	Remarks	Packing Unit	
51 Z 110-000 N	male	1	
51 Z 112-000 N	male with chain	1	
51 Z 115-000 N	female with chain	1	

Shorting Cap

Kurzschlusskappe

Ordering Number	Remarks	Packing Unit	
51 Z 111-000 N4	male with chain	1	

Lötfahne

Lötfahne

Ordering Number	Panel Piercing / PCB Layout	Packing Unit	
51 Z 120-000 B	Ø 9.7	100	


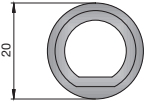
Spring Washer

Zahnscheibe

Ordering Number	Panel Piercing / PCB Layout	Packing Unit	
51 Z 121-000 N	Ø 10	100	

Insulation Washer

Isolierscheibe

Ordering Number	Remarks	Panel Piercing / PCB Layout	Packing Unit	
51 Z 122-000	for panel jacks panel piercing B 2	B 3	100	
51 Z 322-000	for panel jacks panel piercing B 3	B 103	100	
51 Z 323-000	for panel jacks panel piercing B 3	Ø 12.8	100	