



TECHNICAL DATA SHEET

50 ohm Connectors for RF Cables

Kabelwerk | **EUPEN** AG

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cable

Connector 1/4" Hiflex for EC1-50-HF (5042)

FEATURES

- **Low reflection coefficient (up to 2.5 GHz)**
- **Low PIM level**
- **High contact force through inner contacts made in a high-strength copper alloy**
- **Silver plated**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Quick trimming tool**
- **Installation "screw it on and tighten it"**
- **No soldering**
- **Same preparation for straight and right angle connectors**



716MB14X



NM50BL14X

The connectors are designed according the standard interfaces as N or DIN 7/16. Contacts components are silver plated to minimize insertion loss and passive intermodulation products; mechanical parts are nickel plated for heavy-duty handling and best corrosion resistance. The watertightness of our connectors for 1/4" hiflex cables is made simultaneously on the outer conductor and on the jacket using a special silicone gasket. This watertightness solution allows the use of ours connectors in the toughest environmental conditions. For a cost effective, easy and reliable installation, special trimming tools are recommended.

SPECIFICATIONS

Connector type	N-male	N-female	N-female bulkhead	7-16 male	7-16 female bulkhead	N-male right angle
Electrical specifications						
Nominal impedance [Ω]	50					
Reflection coefficient @ 2.5 GHz	≤ 0.02					
Insulation resistance [G Ω]	≥ 5				≥ 10	≥ 5
Test voltage (at sea level) [kV rms, 50Hz]	2.5				4	2.5
Working voltage (at sea level) [kV rms, 50Hz]	1				2.7	1
Max. peak power [kW]	10				40	10
Screening effectiveness up to 1 GHz [dB]	> 128					
Contact resistance (outer contact) [m Ω]	≤ 1					
Contact resistance (inner contact) [m Ω]	≤ 1.5					
PIM ratio (2 x 20 W carrier) [dBc]	≤ -155 (Typical -163)					
Mechanical specifications						
Torque of coupling mechanism [Nm]	8		30		8	
Tensile strength of coupling mechanism [N]	400		1000		250	
Cable retention [N]	> 400		> 600		> 250	
Mechanical endurance (Nr of couplings)	≥ 500					
Outer diameter [mm]	22	22	22	32.5	42	22
Length [mm]	52	52	52	53	53	58 x 31
Weight [g]	72	80	80	136	132	88
Environmental specifications						
Temperature range	-40 °C to +85 °C (-40 °F to +185 °F)					
Degree of protection	IP67/IP68 (mated connectors)					
Climatic & moisture resistance test	acc. ANSI/SCTE 72 2002 R2007 (-40 °C / +60 °C @ 75% r.h.) for 2 weeks					
Corrosion resistance test	acc. IEC 60068-2-11-Test Ka					
Vibration test	acc. IEC 60068-2-6 (10 to 500 Hz @ 10 G)					
Materials						
Externals parts	Passivated silver plated or electroless nickel plated brass					
Outer contact	Passivated silver plated brass					
Inner contact	Passivated silver plated high-strength copper alloy and brass					
Dielectric	TPX/PTFE			TPX		TPX / PTFE
Gaskets	High quality silicone					
Cable dimensions [mm]						
Inner conductor outer diameter	1.85 to 1.95					
Outer conductor outer diameter	6.2 to 6.6					
Jacket outer diameter	7.0 to 8.0					
Order codes						
Connector type	NM50B14X	NF50B14X	NF50P14X	716MB14X	716FP14X	NM50BL14X
Special trimming tool	SPTC50B14X – Silver color					