



# 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 Cu-Be inner contacts
- 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					≤ 0.03
• Insulation resistance [GΩ]	≥ 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	
• Screening effectiveness up to 1 GHz [dB]	> 128					
• Contact resistance (outer contact) [mΩ]	≤ 1					
• Contact resistance (inner contact) [mΩ]	≤ 1.5					
• PIM ratio (2x25 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)					
Materials						
• Externals parts	Passivated silver plated or electroless nickel plated brass					
• Outer contact	Passivated silver plated brass					
• Inner contact	Passivated silver plated Cu-Be 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					