



TECHNICAL DATA SHEET

50 ohm Connectors for Radiating Cables

Kabelwerk | **EUPEN** AG

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cable

Connector for RMC 114 (1" 1/4) radiating cables

FEATURES

- **Low reflection coefficient (up to 3.0 GHz)**
- **High contact force through inner contacts made in a high-strength copper alloy**
- **Monoblock mounting**
- **Silver plated**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Quick trimming tool for cable preparation**
- **O-ring sealing**



NF50R114MPA



716FR114MPA

The connectors are designed according the standard interfaces as N or DIN 7/16. Contact components are silver plated to minimize insertion loss; mechanical parts are nickel plated for heavy-duty handling and best corrosion resistance. Watertightness is achieved using silicone o-rings to resist in the toughest environmental conditions. Special trimming tools are recommended.

SPECIFICATIONS

Connector type	N-female	7-16 female	4.3-10 female
Electrical specifications			
• Nominal impedance [Ω]		50	
• Reflection coefficient @ 3 GHz [dB]		≥ 35	
• Insulation resistance [$G\Omega$]	≥ 5	≥ 10	≥ 5
• Test voltage (at sea level) [KV rms, 50Hz]	2.5	4	2.5
• Working voltage (at sea level) [KV rms, 50Hz]	1.0	2.7	1.0
• Screening effectiveness up to 1 GHz [dB]		> 128	
• Contact resistance (outer contact) [$m\Omega$]		≤ 1.0	
• Contact resistance (inner contact) [$m\Omega$]		≤ 1.0	
• PIM ratio (2 x 20 W carrier) [dBc]		≤ -155	
Mechanical specifications			
• Torque of coupling mechanism [Nm]	8	30	5 to 8
• Tensile strength of coupling mechanism [N]	400	700	500
• Cable retention [N]		> 1000	
• Mechanical endurance (Nr of couplings)		≥ 500	
• Outer diameter [mm]		51.5	52
• Length [mm]	79	74	83
• Weight [g]	510	520	490
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 high-strength copper alloy	
• Dielectric		TPX	
• O-rings		High quality silicone & Nitrile	
Cable dimensions [mm]			
• Inner conductor inner diameter		11.8 to 12.2	
• Jacket outer diameter		37.1 to 38.9	
Order codes			
• O-ring connector type	NF50R114MPA	716FR114MPA	43FR114MPA
• Special trimming tool (Standard cable)		SPTC50R114	
• Special trimming tool (Hiflex cable HF)		SPTC50R114HF	