



TECHNICAL DATA SHEET

50 ohm Connectors for Radiating Cables

Kabelwerk

EUPEN AG

Rev.: 07/2024-09-19

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 [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]	1.0	2.7	1.0
• Screening effectiveness up to 1 GHz [dB]		> 128	
• Contact resistance (outer contact) [mΩ]		≤ 1.0	
• Contact resistance (inner contact) [mΩ]		≤ 1.0	
• PIM ratio (2 x 20 W carrier) [dBc]		≤ -155	
Mechanical specifications			
• Torque of coupling mechanism [Nm]	3 to 5	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	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	