



# 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 [ $\Omega$ ]			50	
• Reflection coefficient @ 3 GHz [dB]			$\geq 35$	
• Insulation resistance [G $\Omega$ ]	$\geq 5$		$\geq 10$	$\geq 5$
• 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 $\Omega$ ]			$\leq 1.0$	
• Contact resistance (inner contact) [m $\Omega$ ]			$\leq 1.0$	
• PIM ratio (2 x 20 W carrier) [dBc]			$\leq -155$	
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)			$\geq 500$	
• 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	