



# 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
<b>Electrical specifications</b>		
• Nominal impedance [ $\Omega$ ]		50
• Reflection coefficient @ 3 GHz [dB]		$\geq 35$
• Insulation resistance [ $G\Omega$ ]	$\geq 5$	$\geq 10$
• Test voltage (at sea level) [KV rms, 50Hz]	2.5	4
• Working voltage (at sea level) [KV rms, 50Hz]	1.0	2.7
• 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]		$\leq -155$
<b>Mechanical specifications</b>		
• Torque of coupling mechanism [Nm]	8	30
• Tensile strength of coupling mechanism [N]	400	700
• Cable retention [N]		$> 1000$
• Mechanical endurance (Nr of couplings)		$\geq 500$
• Outer diameter [mm]		51.5
• Length [mm]	79	74
• Weight [g]	510	520
<b>Environmental specifications</b>		
• Temperature range	-40 °C to +85 °C (-40 °F to +185 °F)	
• Degree of protection	IP67/IP68 (mated connectors)	
<b>Materials</b>		
• 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	
<b>Cable dimensions [mm]</b>		
• Inner conductor inner diameter	11.8 to 12.2	
• Jacket outer diameter	37.1 to 38.9	
<b>Order codes</b>		
• O-ring connector type	NF50R114MPA	716FR114MPA
• Special trimming tool (Standard cable)	SPTC50R114	
• Special trimming tool (Hiflex cable HF)	SPTC50R114HF	