



TECHNICAL DATA SHEET

50 ohm Connectors for Radiating Cables

Kabelwerk | **EUPEN** AG

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cable

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

FEATURES

- **Optimized long-term PIM stability**
- **Low reflection coefficient (up to 3.0 GHz)**
- **Silver plated**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Quick trimming tools for cable preparation**
- **Strong Profile Seal**



43FR114S1

Connectors for Radiating Cables optimized for long term stable, zero Passive Intermodulation. The connectors are designed according the standard interfaces as 4.3-10 or DIN 7-16*. Watertightness is achieved using a strong profile seal to resist in the toughest environmental conditions. Special trimming tools are recommended.

SPECIFICATIONS

Connector type	4.3-10 female	7-16 female*
Electrical specifications		
• Nominal impedance [Ω]		50
• Reflection coefficient @ 3 GHz [dB]		≥ 34 (typical 40)
• PIM ratio (2 x 20 W carrier) [dBc]		≤ -155 (typical -163)
• Insulation resistance [$G\Omega$]	≥ 5	≥ 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 3 GHz [dB]		> 128
• Contact resistance (outer contact) [m Ω]		≤ 1.0
• Contact resistance (inner contact) [m Ω]		≤ 1.0
Mechanical specifications		
• Torque of coupling mechanism [Nm]	5 to 8	30
• Tensile strength of coupling mechanism [N]	500	700
• Cable retention [N]	> 500	> 1000
• Mechanical endurance (No. of couplings)	≥ 100	≥ 500
• Outer diameter [mm]		53.0
• Length [mm]		90
• Weight [g]		500
Environmental specifications		
• Temperature range		- 40 °C to +85 °C (-40 °F to +185 °F)
• Climatic & moisture resistance test		acc. ANSI/SCTE 72 2002 R2007 (-40 °C / +60 °C @ 75% v.h.) for 2 weeks
• Degree of protection		IP67/IP68 (mated connectors)
• Corrosion resistance test		acc. to IEC 60068-2-11
Materials		
• Externals parts (Front & Rear part)		Passivated white bronze plated brass & nickel plated brass
• Outer contact		Passivated silver plated brass
• Inner contact		Passivated silver plated brass
• Dielectric		PTFE
• O-rings		High quality silicone & Nitrile
Cable dimensions		
• Inner conductor inner diameter [mm]		11.9 to 12.3
• Jacket outer diameter [mm]		37.1 to 38.9
Order codes		
• O-ring connector type	43FR114S1	716FR114S1*
• Special trimming tools		F-114R-A & F-114R-B

* available on request and MOQ