



TECHNICAL DATA SHEET

50 ohm Connectors for Radiating Cables

Kabelwerk | **EUPEN** AG

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cable

Connector for **RMC 158 (1" 5/8)** 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**



NF50R158MPA



716FR158MPA

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
Electrical specifications		
• Nominal impedance [Ω]		50
• Reflection coefficient @ 3 GHz [dB]		≥ 35
• 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 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
• Tensile strength of coupling mechanism [N]	400	700
• Cable retention [N]		> 1000
• Mechanical endurance (Nr of couplings)		≥ 500
• Outer diameter [mm]		63
• Length [mm]	88	83
• Weight [g]	710	725
Environmental specifications		
• Temperature range	-40 °C to +85 °C (-40 °F to +185 °F)	
• Degree of protection	IP67/IP68 (mated connectors)	
Materials		
• External 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	14.3 to 14.7	
• Jacket outer diameter	47.0 to 49.0	
Order codes		
• O-ring connector type	NF50R158MPA	716FR158MPA
• Special trimming tool	SPTC50R158	