



TECHNICAL DATA SHEET

50 ohm Connectors for RF Cables

Kabelwerk | **EUPEN** AG

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cable

Connector 1-1/4" for EC6-50-A (5328A) and EA6-50 (5327)

FEATURES

- **Low reflection coefficient (up to 3.0 GHz)**
- **Low PIM level**
- **High contact force through inner contacts made in a high-strength copper alloy**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Quick trimming tool for cable preparation**
- **O-ring sealing**
- **Fully compatible with copper & aluminium c.**



NF50V114N1



43FV114N1



716FV114N1

The connectors are designed according the standard interfaces as N, DIN 7-16 or 4.3-10. Contact components are silver or trimetal plated to minimize insertion loss and passive intermodulation products; mechanical parts are nickel plated for heavy-duty handling and best corrosion resistance. Watertightness is achieved by using silicone o-rings to resist in the toughest environmental conditions. The 1-1/4" connectors are compatible with standard 1-1/4" Eupen cables. For a cost effective, easy and reliable installation, special trimming tools are recommended.

SPECIFICATIONS

Connector type	N-male	N-female	4.3-10 female	7-16 male	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		
• Max. peak power [kW]	10	22.5*		40	
• 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 (Typical -163)				
Mechanical specifications					
• Torque of coupling mechanism [Nm]	8	5 to 8		30	
• Tensile strength of coupling mechanism [N]	400	500		700	
• Cable retention [N]	> 1000				
• Mechanical endurance (Nr of couplings)	≥ 500				
• Outer diameter [mm]	48				
• Length [mm]	66	71	71	61	61
• Weight [g]	312	300	300	310	312
Environmental specifications					
• Temperature range	-40 °C to +85 °C (-40 °F to +185 °F)				
• Degree of protection	IP67/IP68 (mated connectors)				
• Climatic & moisture resistance test	acc. ANSI/SCTE 72 2002 R2007 (-40 °C / +60 °C @ 75% r.h.) for 2 weeks				
• Corrosion resistance test	acc. IEC 60068-2-11-Test Ka				
• Vibration test	acc. IEC 60068-2-6 (10 to 500 Hz @ 10 G)				
Materials					
• Externals parts	Brass with passivated silver or trimetal or nickel plating				
• Outer contact	Brass with passivated silver or trimetal plating				
• Inner contact	Passivated silver plated high-strength copper alloy and brass				
• Dielectric	TPX				
• O-rings	High quality silicone				
Cable dimensions [mm]					
• Inner conductor inner diameter	10.2 to 12.2				
• Outer conductor outer diameter	35.3 to 36.6				
• Jacket outer diameter	38.5 to 39.5				
Order codes					
• O-ring connector type	NM50V114N1	NF50V114N1	43FV114N1	716MV114N1	716FV114N1
• Special trimming tool for standard cable	F-114				

* 4.3-10 interface according to IEC61169-54