



TECHNICAL DATA SHEET

50 ohm Connectors for RF Cables

Kabelwerk

EUPEN AG

Rev.: 09/2024-11-19

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 cable



NF50V114N1



43FV114N1



716FV114N1

The connectors are designed according to 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 Ω]		≥ 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		15*		40
• Screening effectiveness up to 1 GHz [dB]			> 128		
• Contact resistance (outer contact) [m Ω]			≤ 1.0		
• Contact resistance (inner contact) [m Ω]			≤ 1.0		
• PIM ratio (2 x 20 W carrier) [dBc]			≤ -155 (Typical -163)		
Mechanical specifications					
• Torque of coupling mechanism [Nm]	3 to 5		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]	71	71	71	61	61
• Weight [g]	300	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					
• External 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		

* ambient temperature 90 °C max.