



TECHNICAL DATA SHEET

50 ohm Connectors for RF Cables

Kabelwerk **EUPEN** AG

Rev.: 01/2007-02-22

connector cable

Connector 1/2" for EC4-50 (5128)

FEATURES

- **Low reflection coefficient (up to 2.5 GHz)**
- **Low PIM level**
- **High contact force through Cu-Be inner contact**
- **Silver plated**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Installation "fit on and tighten it"**
- **Sealant injection or o-ring sealing**



NF50A12



716FV12



716MAL12

The connectors are designed according the standard interfaces as N or DIN 7/16. Contact components are silver plated to minimize insertion loss and passive intermodulation products; mechanical parts are nickel plated for heavy-duty handling and best corrosion resistance. The watertightness of our connectors is made using silicone o-rings or silicone sealant injection, filling up all interstices, to resist in the toughest environmental conditions. For a cost effective, easy and reliable installation, special trimming tools are recommended.

SPECIFICATIONS

Connector type	N-male	N-female	7-16 male	7-16 female	N-male right angle	7-16 male right angle
Electrical specifications						
• Nominal impedance [Ω]				50		
• Reflection coefficient @ 2.5 GHz			≥ 0.02			≤ 0.03
• Insulation resistance [$G\Omega$]						
• Test voltage (at sea level) [KV rms, 50Hz]	≥ 5			≥ 10	≥ 5	≥ 10
• Working voltage (at sea level) [KV rms, 50Hz]	2.5			4	2.5	4
• Screening effectiveness up to 1 GHz [dB]	1			2.7	1	2.7
• Contact resistance (outer contact) [$m\Omega$]				> 128		
• Contact resistance (inner contact) [$m\Omega$]				≤ 1		
• PIM ratio (2x25 W carrier) [dBc]				≤ 1		
				≤ -155 (Typical -163)		
Mechanical specifications						
• Torque of coupling mechanism [Nm]	8			30	8	30
• Tensile strength of coupling mechanism [N]	400			1000	400	1000
• Cable retention [N]	500			> 1000	> 400	> 700
• Mechanical endurance (Nr of couplings)				≥ 500		
• Outer diameter [mm]	22	22	32.5	42	22	35
• Length [mm]	61	59	59	60	54 x 40.4	60 x 39.5
• Weight [g]	90	88	140	138	164	188
Environmental specifications						
• Temperature range				-40 °C to +85 (-40 °F to +185 °F)		
• Degree of protection				IP67/IP68 (mated connectors)		
Materials						
• Externals parts				Passivated silver plated or electroless nickel plated brass		
• Outer contact				Passivated silver plated brass		
• Inner contact				Passivated silver plated Cu-Be and brass		
• Dielectric	PTFE			TPX		TPX / PTFE
• O-rings				High quality silicone		
Cable dimensions [mm]						
• Inner conductor outer diameter				4.75 to 4.85		
• Outer conductor outer diameter				13.6 to 13.9		
• Jacket outer diameter				15.5 to 16.5		
Order codes						
• Sealant injection connector type	NM50A12	NF50A12	716MA12	716FA12	NM50AL12	716MAL12
• O-ring connector type	NM50V12	NF50V12	716MV12	716FV12	NM50VL12	716MVL12
• Special trimming tool			SPTC50AV12 – Silver color			
• Special silicone sealant kit			SIL 744			

