



TECHNICAL DATA SHEET

50 ohm Connectors for RF Cables

Kabelwerk **EUPEN** AG

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cable

Connector 1/4" for EC1-50 (5062)

FEATURES

- **Low reflection coefficient (up to 2.5 GHz)**
- **Low PIM level**
- **High contact force through Cu-Be inner contacts**
- **Silver plated**
- **Gland on the cable**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Quick trimming tool**
- **O-ring seal integrated in connector**



NF50A14



NM50AL14

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 is made using silicone o-rings and a gland with nitrile o-ring on the cable 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
Electrical specifications					
Nominal impedance [Ω]	50				
Reflection coefficient @ 2.5 GHz	≤ 0.02				
Insulation resistance [$G\Omega$]	≥ 5		≥ 10		≥ 5
Test voltage (at sea level) [KV rms, 50Hz]	2.5		4		2.5
Working voltage (at sea level) [KV rms, 50Hz]	1		2.7		1
Screening effectiveness up to 1 GHz [dB]	> 128				
Contact resistance (outer contact) [m Ω]	≤ 1				
Contact resistance (inner contact) [m Ω]	≤ 1.5				
PIM ratio (2x25 W carrier) [dBc]	≤ -155 (Typical -163)				
Mechanical specifications					
Torque of coupling mechanism [Nm]	8		30		8
Tensile strength of coupling mechanism [N]	400		1000		400
Cable retention [N]	> 400		> 700		> 400
Mechanical endurance (Nr of couplings)	≥ 500				
Outer diameter [mm]	22	22	32.5	29	22
Length [mm]	65	65	65	65	69 x 31
Weight [g]	62	56	120	120	90
Environmental specifications					
Temperature range	$-40\text{ }^{\circ}\text{C}$ to $+85\text{ }^{\circ}\text{C}$ ($-40\text{ }^{\circ}\text{F}$ to $+185\text{ }^{\circ}\text{F}$)				
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		PTFE & TPX
O-rings	High quality silicone & nitrile				
Cable dimensions [mm]					
Inner conductor (helicoids) inner diameter	2.3 to 2.43				
Outer conductor outer diameter	6.5 to 7.8				
Jacket outer diameter	9.0 to 10.2				
Order codes					
Connector type	NM50A14	NF50A14	716MA14	716FA14	NM50AL14
Special trimming tool	SPTC50A14 - Silver color				