



TECHNICAL DATA SHEET

50 ohm Connectors for RF Cables

Kabelwerk | **EUPEN** AG

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cable

Connector 7/8" for EC5-50-A (5228A) and EA5-50 (5227)

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
- Silver plated
- Watertight (IP67/IP68)
- Corrosion resistant
- Quick trimming tool for cable preparation
- Fully compatible with copper & aluminium cable



NM50V78N1



716FV78N1

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. Watertightness is achieved using silicone o-rings to resist in the toughest environmental conditions. In addition to this proven quality the 7/8" connectors offering excellent electrical specifications. 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
Electrical specifications				
• Nominal impedance [Ω]			50	
• Reflection coefficient @ 3.0 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			2.7
• Max. peak power [kW]	10			40
• Screening effectiveness up to 1 GHz [dB]			> 128	
• Contact resistance (outer contact) [m Ω]			≤ 1	
• Contact resistance (inner contact) [m Ω]			≤ 1	
• PIM ratio (2 x 20 W carrier) [dBc]			≤ -155 (Typical -163)	
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]			35	
• Length [mm]	62	57	53	52
• Weight [g]	164	153	170	160
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			Passivated silver plated or electroless nickel plated brass	
• Outer contact			Passivated silver plated brass	
• 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			8.26 to 8.46	
• Outer conductor outer diameter			24.6 to 25.4	
• Jacket outer diameter			27.8 to 28.2	
Order codes				
• O-ring connector type	NM50V78N1	NF50V78N1	716MV78N1	716FV78N1
• Special trimming tool			SPTC50AV78M – Blue color	



INSTALLATION INSTRUCTIONS

50 Ohm Monoblock Connectors

7/8", 1-1/4" & 1-5/8" Monoblock Connectors - O-ring type

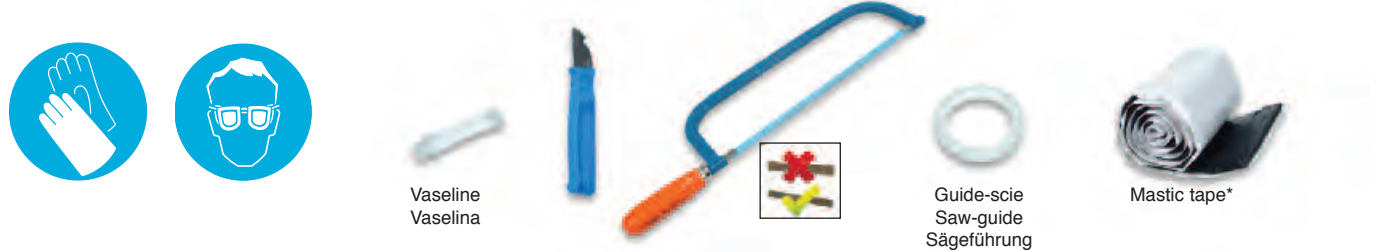


7/8"	SPTC50AV78M / US: F-78
7/8"X	SPTC50AV78X
1 1/4"	SPTC50AV114M / US: F-114
1 1/4"X	SPTC50AV114X
1 5/8"	SPTC50AV158M / US: F-158

We strongly advise the use of cable preparation tools. Please refer to their instructions for use.

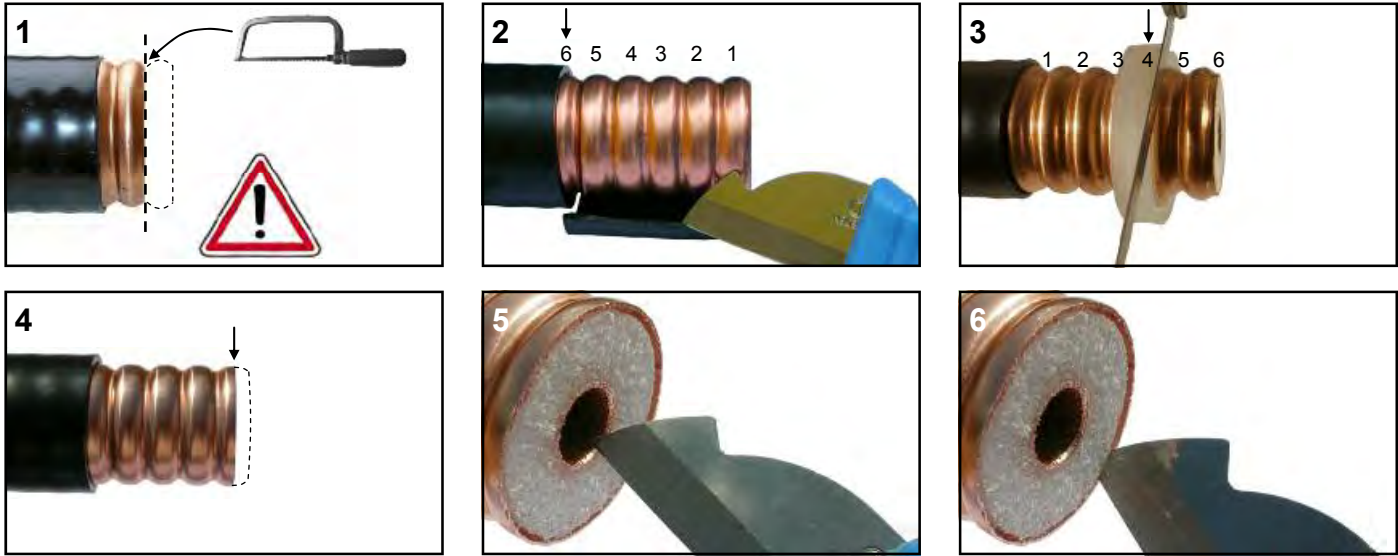
Manual method

Follow the instruction process below only if the cable preparation tools are not available.



* A Butyl mastic tape is available in our Weatherproofing Tape Kit (ref. 2849996)

	NM	7/16M	7/8"		1 1/4"		1 5/8"	
	19 mm	32 mm		30 mm				
					1-11/16"	φ 4 mm φ 48 mm	2-1/4"	φ 5 mm φ 63 mm

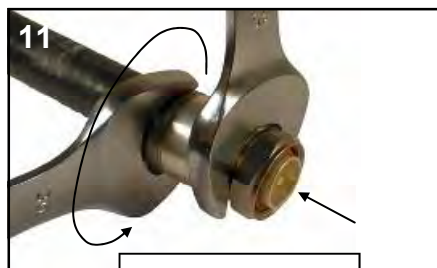
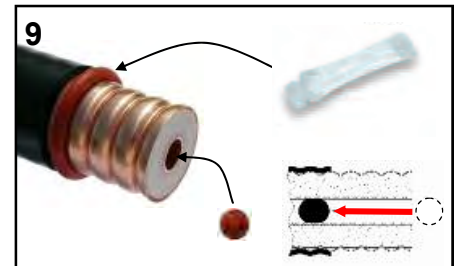
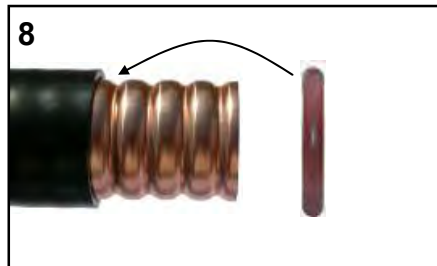




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50 Ohm Monoblock Connectors

7/8", 1-1/4" & 1-5/8" Monoblock Connectors - O-ring type



7/8" : 30 Nm (22 ft-lb)
 1 1/4" : 40 Nm (29 ft-lb)
 1 5/8" : 50 Nm (37 ft-lb)



For any questions please contact KABELWERK EUPEN AG / for US Customer service call 1-800-419-5100

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