



TECHNICAL DATA SHEET

50 ohm Connectors for RF Cables

Kabelwerk | **EUPEN** AG

Rev.: 09/2014-04-04

cable

Connector 1/2" for EC4-50 (5128) and EA4-50 (5127)

FEATURES

- **Low reflection coefficient (up to 2.5 GHz)**
- **Low PIM level**
- **High contact force through inner contacts made in a high-strength copper alloy**
- **Silver plated**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Installation "fit on and tighten it"**
- **O-ring sealing**



NF50V12



716FV12N1



716MVL12

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 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					
• Return loss @ 2.5 GHz	≥ 34 dB		≥ 35 dB up to 3 GHz		≥ 30 dB	
• Insulation resistance [$G\Omega$]	≥ 5		≥ 10		≥ 5	≥ 10
• Test voltage (at sea level) [kV rms, 50Hz]	2.5		4		2.5	4
• Working voltage (at sea level) [kV rms, 50Hz]	1		2.7		1	2.7
• Max. peak power [kW]	10		40		10	40
• Screening effectiveness up to 1 GHz [dB]	> 128					
• Contact resistance (outer contact) [$m\Omega$]	≤ 1					
• Contact resistance (inner contact) [$m\Omega$]	≤ 1					
• PIM ratio (2 x 20 W carrier) [dBc]	≤ -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		29		22	35
• Length [mm]	61		59		54 x 40.4	
• Weight [g]	90		140		164	
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	PTFE			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	15.6 to 16.4					
Order codes						
• Connector code	NM50V12	NF50V12	716MV12N1	716FV12N1	NM50VL12	716MVL12
• Special trimming tool	SPTC50AV12 – Silver color					



INSTALLATION INSTRUCTION

50 Ohm CONNECTORS

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E1018 Rev.12/2017-03-28

cable

1/2

1/2" - Straight & right angle connectors - O-Ring type



EC4-50 (5128) EA4-50 (5127)	SPTC50AV12

Please use the cable preparation tool SPTC50AV12 and refer to its instructions for use.

Follow the instruction process below only if the tool SPTC50AV12 is not available.

		Vaseline Vaselina 凡士林			3M : F 04/013 Abrasiif Abrasive Schleifmittel Schnuurpons Abrasive 磨砂纸		

	NF, NM	NM50VL12	4.3/10M N1	7/16M N1	7/16MVL12	7/16F N1 4.3/10F N1
	2 x 19 mm	19 mm & 23 mm	19 mm & 21 mm & 22 mm	19 mm & 21 mm & 32 mm	19 mm & 24 mm & 32 mm	19 mm & 21 mm

MANUAL METHOD

1. Preparation of the cable jacket with a utility knife. A warning triangle is shown.

2. Stripping the outer jacket with a utility knife.

3. Stripping the braided shield with a utility knife. Dimensions: 6.5 x P (total length), P (individual strand length).

4. Stripping the inner insulation with a utility knife.

5. Inserting the connector into the stripped cable.

6. Tightening the connector with a screwdriver. Dimension: 2.5 x P (tightening length).



INSTALLATION INSTRUCTION

50 Ohm CONNECTORS

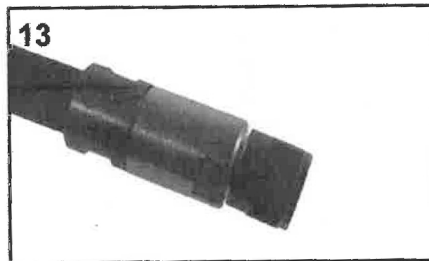
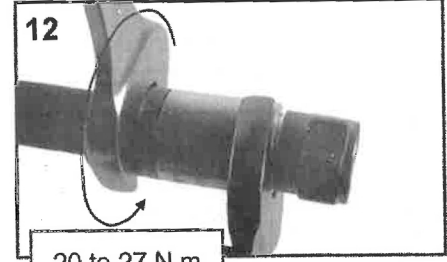
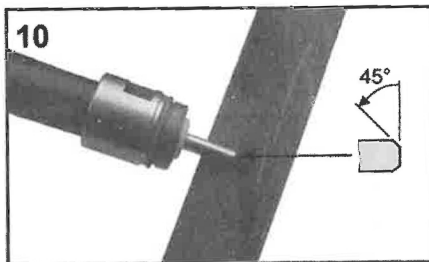
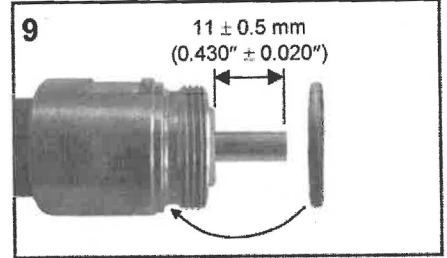
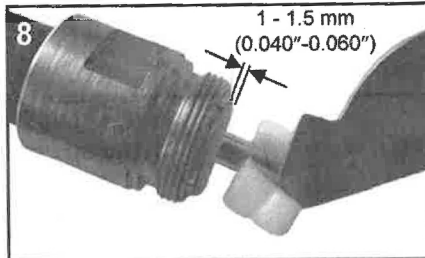
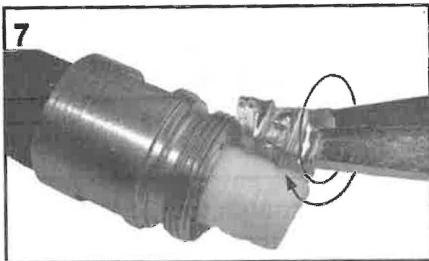
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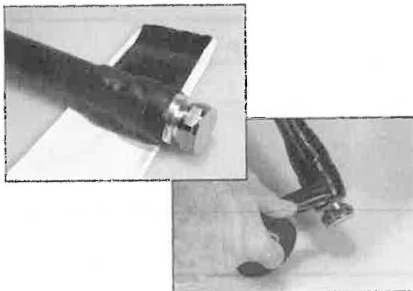
2/2

1/2" - Straight & right angle connectors - O-Ring type

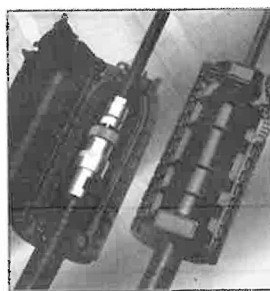


For installation on aluminium cable 5127/EA4-50 in a corrosive environment, an additional sealing is mandatory. It can be achieved with one of the following methods:

Weatherproofing Tape Kit



Eucaseal



Cold Shrink Tube



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

(D) Verarbeitung nur durch eine Elektrofachkraft.
Es besteht die Gefahr eines elektrischen Schlagess!

(F) Installation uniquement par une personne qualifiée en électricité.
Il y a un risque de choc électrique!



(NL) Installatie alleen door een vakman voor elektriciteit.
Er is gevaar van elektrische schok!

(GB) Processing only by a qualified electrician.
There is a risk of electric shock!

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