



# TECHNICAL DATA SHEET

## 50 ohm Connectors for Radiating Cables

Kabelwerk

**EUPEN** AG

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cable

### Connectors for LSC/RMC 7/8" radiating cables

#### FEATURES

- **High contact force and inner contacts made in a high-strength copper alloy**
- **Silver or Trimetal Plated**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Quick trimming tool**
- **Installation "fit on and tighten it"**
- **New 4.3-10 interface available**



43FR78A



NM50R78A



43FR78L



NF50R78L

The connectors are designed according to the standard interfaces as 4.3-10, N or DIN 7-16. Contact components are silver or trimetal plated to minimize insertion loss and passive intermodulation products. The special quick trimming tool makes installation very easy and cost effective in time.

#### SPECIFICATIONS

Connector type	N-male	N-female	7-16 female	4.3-10 female
<b>Electrical specifications</b>				
• Nominal impedance [ $\Omega$ ]		50		
• Reflection coefficient @ 3 GHz [dB]		$\geq 35$		
• Insulation resistance [ $G\Omega$ ]	$\geq 5$		$\geq 10$	$\geq 5$
• Test voltage (at sea level) [kV rms, 50Hz]	2.5		4	2.5
• Working voltage (at sea level) [kV rms, 50Hz]	1		2.7	1.0
• Contact resistance (outer contact) [m $\Omega$ ]		$\leq 2$		$\leq 1.0$
• Contact resistance (inner contact) [m $\Omega$ ]		$\leq 2$		$\leq 1.0$
• PIM ratio (2 x 20 W carrier) [dBc]	-			$\leq -155$
<b>Mechanical specifications</b>				
• Torque of coupling mechanism [Nm]	3 to 5		30	5 to 8
• Tensile strength of coupling mechanism [N]	400		1000	500
• Cable retention [N]	$> 500$		$> 1000$	$> 1000$
• Mechanical endurance (Nr of couplings)		$\geq 500$		
<b>Environmental specifications</b>				
• Temperature range		-40 °C to +85 °C (-40 °F to +185 °F)		
• Degree of protection		IP67/IP68 (mated connectors) <sup>(1)</sup>		
<b>Materials</b>				
• Externals parts	Electroless nickel plated brass			
• Outer contact	Passivated silver or trimetal plated brass			
• Inner contact	Passivated silver plated high-strength copper alloy and brass			
• Dielectric	PTFE and (or) TPX			
• Gaskets	High quality silicone & nitrile			
<b>Tool codes</b>				
• 7/8"	SPTC50R78			
<b>Connectors codes</b>				
• 7/8" with O.D. 27 mm <sup>(2)</sup>	NM50R78A	NF50R78A	716FR78A	43FR78A
• 7/8" with O.D. 28 mm <sup>(3)</sup>		NF50R78L	716FR78L	43FR78L

<sup>(1)</sup> For installations in harsh environments, the use of an optional Heat-Shrink is recommended.

<sup>(2)</sup> RMC 78 and LSC 78 cables with HLFR suffix or without suffix (PE version).

<sup>(3)</sup> RMC 78 cables with HLFBR/D, HLFRR, HLFRC, HLFR-C<sub>ca</sub> and HLFR-B2<sub>ca</sub> suffix.