



# 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 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 make installation very easy and cost effective in time.

### SPECIFICATIONS

| Connector type                                 | N-male                                                        | N-female | 7-16 female | 4.3-10 female |
|------------------------------------------------|---------------------------------------------------------------|----------|-------------|---------------|
| Electrical specifications                      |                                                               |          |             |               |
| • Nominal impedance [Ω]                        |                                                               | 50       |             |               |
| • Reflection coefficient @ 3 GHz [dB]          |                                                               | ≥ 35     |             |               |
| • Insulation resistance [GΩ]                   | ≥ 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         | 1.0           |
| • Contact resistance (outer contact) [mΩ]      |                                                               | ≤ 2      |             | ≤ 1.0         |
| • Contact resistance (inner contact) [mΩ]      |                                                               | ≤ 2      |             | ≤ 1.0         |
| • PIM ratio (2 x 20 W carrier) [dBc]           | -                                                             |          | ≤ -155      |               |
| Mechanical specifications                      |                                                               |          |             |               |
| • 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)       |                                                               | ≥ 500    |             |               |
| Environmental specifications                   |                                                               |          |             |               |
| • Temperature range                            | -40 °C to +85 °C (-40 °F to +185 °F)                          |          |             |               |
| • Degree of protection                         | IP67/IP68 (mated connectors) <sup>(1)</sup>                   |          |             |               |
| Materials                                      |                                                               |          |             |               |
| • 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                               |          |             |               |
| Tool codes                                     |                                                               |          |             |               |
| • 7/8"                                         | SPTC50R78                                                     |          |             |               |
| Connectors codes                               |                                                               |          |             |               |
| • 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 HLFRB/D, HLFRU, HLFR-C<sub>ca</sub> and HLFR-B2<sub>ca</sub> suffix.