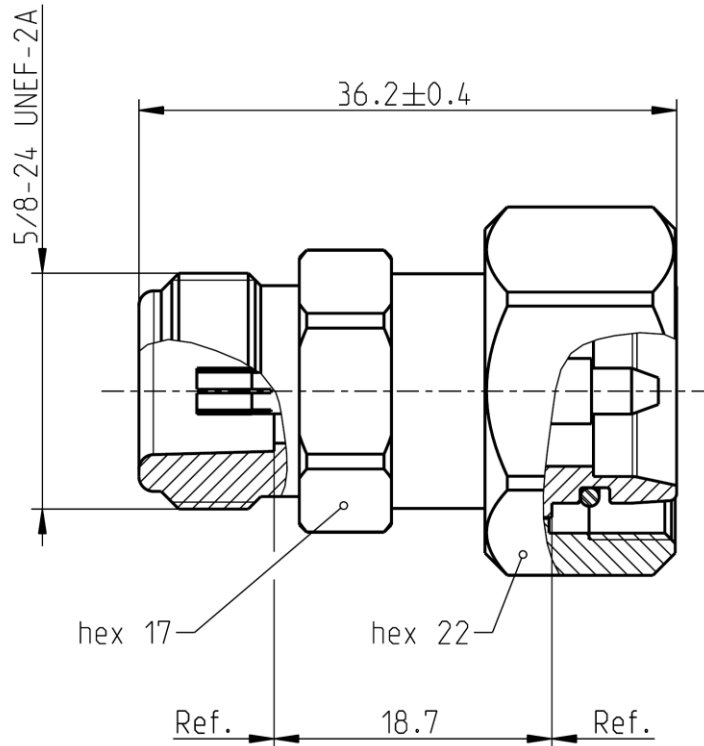




All dimensions are in mm; tolerances according to ISO 2768 m-H

## Interface

According to 4.3-10 side: IEC 61169-54  
N side: IEC 61169-16, MIL-PRF-39012, CECC 22210

## Documents

Assembly instruction N/A

## Material and plating

### Connector parts

Center contact  
Outer contact  
Body  
Dielectric  
Gasket

### Material

CuBe  
Brass  
Brass  
PTFE  
Silicone

### Plating

Silver, 3-6 µm  
Flash white bronze over silver(e.g. Optargen®)  
Flash white bronze over silver(e.g. Optargen®)

# Technical Data Sheet

# Rosenberger

4.3-10

Adaptor  
4.3-10 plug – N jack

53K164-S00N1

## Electrical data

|                                                |                                                                               |
|------------------------------------------------|-------------------------------------------------------------------------------|
| Impedance                                      | 50 Ω                                                                          |
| Frequency                                      | DC to 12 GHz                                                                  |
| Return loss                                    | ≥ 36 dB @ DC to 1 GHz<br>≥ 30 dB @ 1 GHz to 4 GHz<br>≥ 25 dB @ 4 GHz to 6 GHz |
| Insertion loss                                 | ≤ 0.03 x $\sqrt{f \text{ [GHz]}}$ dB                                          |
| Insulation resistance                          | ≥ 5 GΩ                                                                        |
| Center contact resistance                      | ≤ 1.0 mΩ, 4.3-10 side    ≤ 1.0 mΩ, N side                                     |
| Outer contact resistance                       | ≤ 1.0 mΩ, 4.3-10 side    ≤ 0.25 mΩ, N side                                    |
| Test voltage                                   | 2500 V rms                                                                    |
| Working voltage                                | 500 V rms                                                                     |
| RF-leakage                                     | ≥ 128 dB @ DC to 1 GHz                                                        |
| Power handling (at 20 °C, sea level, VSWR 1.0) | 1000 W @ 1 GHz<br>700 W @ 2 GHz                                               |
| Intermodulation (3 <sup>rd</sup> order)        | ≥ 155 dBc (2 x 43 dBm)                                                        |

## Mechanical data

|                                   |              |               |
|-----------------------------------|--------------|---------------|
|                                   | 4.3-10 side  | N side        |
| Mating cycles                     | ≥ 100        | min. 500      |
| Center contact captivation: axial | ≥ 30 N       | ≥ 28 N        |
| radial                            | > 5 Ncm      | ≥ 3 Ncm       |
| Center contact retention force    | 1.5 N – 20 N |               |
| Recommended torque                | 5 Nm         | 0.7 to 1.1 Nm |

## Environmental data

|                                   |                                        |
|-----------------------------------|----------------------------------------|
| Temperature range                 | -55 °C to +90 °C operating temperature |
| Thermal shock                     | IEC 60169-1, Sub-clause 16.4           |
| Corrosion resistance              | ISO 21207 method B                     |
| Vibration                         | IEC 61169-1 9.3.3 and IEC 60068-2-64   |
| Shock                             | IEC 61169-1 9.3.14                     |
| Degree of protection (mated pair) | IEC 60529, IP68 1h / 25m               |
| RoHS                              | compliant                              |

## Tooling

N/A

## Suitable cables

N/A

## Weight

Weight 57g/pce

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

| Draft                                                                                                                                                  | Date     | Approved      | Date       | Rev. | Engineering change number                                                                    | Name           | Date          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|------------|------|----------------------------------------------------------------------------------------------|----------------|---------------|
| F. Fraunhofer                                                                                                                                          | 04.02.13 | F. Fraunhofer | 24.06.2019 | d01  | 19-0004                                                                                      | S. Huber-Siegl | 24.06.2019    |
| Rosenberger Hochfrequenztechnik GmbH & Co. KG<br>P.O.Box 1260 D-84526 Tittmoning Germany<br><a href="http://www.rosenberger.de">www.rosenberger.de</a> |          |               |            |      | Tel. : +49 8684 18-0<br>Email : <a href="mailto:info@rosenberger.de">info@rosenberger.de</a> |                | Page<br>2 / 2 |