



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

### Interface

According to  
Mechanically compatible with

IEC 60169-23  
RPC-2.92 and SMA

### Documents

Application note

AN001 "Calibration Services"

### Documentation

This Part is delivered with:

- **USB Stick**  
with S2p data file of the reference measurement values. Calibration Certificate as PDF file.
- **Calibration Certificate**  
Details see "Declaration of calibration" options.

RPC-3.50

Mismatch Airline  
Plug / Jack

**03S102-K100**

**Material and plating**

**Connector parts**

Center conductor  
Outer conductor  
Coupling nut

**Material**

CuBe  
Brass  
Stainless steel

**Plating**

Gold, min. 1.27 µm, over chemical nickel  
Gold, min. 1.27 µm, over chemical nickel  
Passivated

**Mechanical data**

Mating cycles ≥ 500  
Maximum torque 1.70 Nm  
Recommended torque 0.90 Nm  
Nominal Airline dimensions at 23 °C:  
- Diameter outer conductor 3.500 mm  
- Diameter inner conductor 50 Ω section 1.520 mm  
- Diameter inner conductor 25 Ω section 2.307 mm  
- Length outer conductor 100.00 mm  
- Length inner conductor 100.00 mm  
- Length difference ≤ 0.04 mm  
(outer conductor – inner conductor)  
- Length 25 Ω section 75.00 mm

**Electrical verification standard**

This Mismatch Airline is designed as an electrical verification standard. Reference measurement values (calibration results) for transmission and reflection are included. Connected to a calibrated VNA the actual measured transmission and reflection values can be compared to the reference measurement values and the quality of the VNA calibration can be evaluated.

**Environmental data**

Operating temperature range<sup>1</sup> +20 °C to +26 °C  
Storage temperature range 0 °C to +50 °C  
RoHS compliant

1. This range is a recommendation. However, the mismatch airline can be used in a wider range. Any temperature change from 23 °C results in dimensional changes.

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF\_35/09;14/6.2