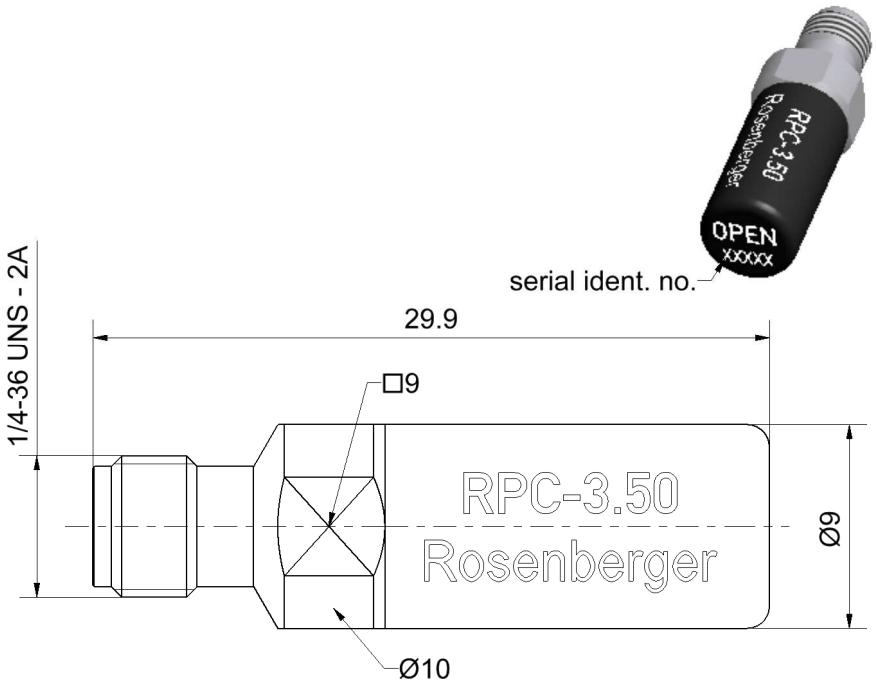
| Technical Data Sheet | | Rosenberger |
|---|---|---|
| RPC-3.50 | Open Circuit<br>Jack | **03K12L-000S3** |




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

## Interface

| | |
|---|---|
| According to | IEC 60169-23 |
| Mechanically compatible with | RPC-2.92 and SMA |

## Documents

| | |
|---|---|
| Application note | AN001 “Calibration Services” |

## Material and plating

| **Connector parts** | **Material** | **Plating** |
|---|---|---|
| Center conductor | CuBe | Gold, min. 1.27 µm, over nickel |
| Outer conductor | Stainless steel | Passivated |
| Dielectric | PS | |





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## Electrical data

| | |
|---|---|
| Frequency range | DC to 26.5 GHz |
| Return loss | ≤ 0.10 dB, DC to 4 GHz<br>≤ 0.12 dB, 4 GHz to 8 GHz<br>≤ 0.18 dB, 8 GHz to 26.5 GHz |
| Error from nominal phase[1] | ≤ 1.0°, DC to 4 GHz<br>≤ 1.5°, 4 GHz to 8 GHz<br>≤ 2.0°, 8 GHz to 26.5 GHz |

[1] *The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances.*

## Mechanical data

| | |
|---|---|
| Mating cycles | ≥ 500 |
| Maximum torque | 1.70 Nm |
| Recommended torque | 0.90 Nm |
| Gauge | 0.00 mm to 0.04 mm |

## General standard definitions

For proper operation the vector network analyzer (VNA) needs a model describing the electrical behaviour of this calibration standard. The different models, units, and terms used will depend on the VNA type and they will have to be entered into the VNA. All values are based on typical geometry and plating.

| | |
|---|---|
| Offset $Z_o$ / Impedance / $Z_o$ | 50 Ω |
| Offset Delay | 23.3495 ps |
| Length (electrical) / Offset Length | 7.00 mm |
| Offset Loss | 2.20 GΩ/s |
| Loss | 0.0089 dB/$\sqrt{\text{GHz}}$ |
| Fringing Capacitances[2] | |

[2] *Fringing Capacitances are determined individually for each open circuit and are documented in a Calibration Certificate.*

## Environmental data

| | |
|---|---|
| Operating temperature range[3] | + 20 °C to +26 °C |
| Rated temperature range of use[4] | 0 °C to +50 °C |
| Storage temperature range | - 40 °C to +85 °C |
| RoHS | compliant |

[3] *Temperature range over which these specification are valid.*
[4] *This range is underneath and above the operating temperature range, within the open circuit is fully functional and could be used without damage.*





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## Declaration of calibration options

**Factory Calibration**

Standard delivery for this calibration standard includes a Factory Calibration. The Calibration Certificate issued reports individual calibration results, traceable to national / international standards. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

**Accredited Calibration**

Optional this calibration standard can be delivered with an Accredited Calibration (DAkkS) having the highest confidence in the traceability. The DAkkS Calibration Certificate issued reports individual calibration results in a complex format, traceable to national / international standards. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format as well as in a dense data set needed for data based standard definitions. The uncertainties are smaller than in a Factory Calibration.

*For further, more detailed information see application note AN001 on the Rosenberger homepage.*

## Calibration interval

| | |
|---|---|
| Recommendation | 12 months |

## Packing

| | |
|---|---|
| Standard | 1 pce in box |
| Weight | 6.7 g/pce |








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