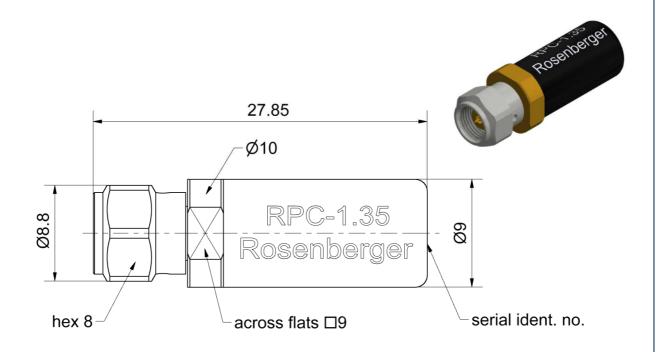
Technical Data Sheet		Rosenberger			
RPC-1.35	Short Circuit Plug	P9S12S-000D3			



Tel. : +49 8684 18-0

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

Interface	
According to	IEC 61169-65

Documents	
Application note	AN001 "Calibration Services"

Material and plating		
Connector parts	Material	Plating
Center conductor	CuBe	Gold, min. 1.27µm
Outer conductor	CuBe or equiv.	Gold, min. 1.27µm
Coupling nut	Stainless steel	Passivated

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# RF 35/09.14/6.2

## Technical Data Sheet Rosenberger

**RPC-1.35** 

Short Circuit

P9S12S-000D3

## **Electrical data**

Frequency range

DC to 90 GHz

Error from nominal phase<sup>1</sup>

 $\leq$  2.0°, DC to 18 GHz  $\leq$  3.0°, 18 GHz to 40 GHz  $\leq$  4.0°, 40 GHz to 65 GHz  $\leq$  5.0°, 65 GHz to 90 GHz

### Mechanical data

 $\begin{array}{ll} \text{Mating cycles} & \geq 3000 \\ \text{Maximum torque} & 1.65 \text{ Nm} \\ \text{Recommended torque} & 0.90 \text{ Nm} \\ \end{array}$ 

Gauge 0.003 mm to 0.020 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.

 $\begin{array}{lll} \mbox{Offset $Z_{\rm o}$ / Impedance / $Z_{\rm o}$} & 50 \ \Omega \\ \mbox{Offset Delay} & 16.678 \ ps \\ \mbox{Length (electrical) / Offset Length} & 5.00 \ mm \\ \mbox{Offset Loss} & 5,95 \ G\Omega/s \\ \mbox{Loss} & 0.0172 \ dB/\sqrt{\mbox{GHz}} \end{array}$ 

Short Inductance<sup>2</sup>

## **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

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<sup>&</sup>lt;sup>1</sup> The nominal phase is defined by the Offset Delay, the Offset Loss and the Short Inductances.

<sup>&</sup>lt;sup>2</sup> Short Inductances are determined individually for each short circuit and are documented in a Calibration Certificate.

<sup>&</sup>lt;sup>3</sup> Temperature range over which these specification are valid.

<sup>&</sup>lt;sup>4</sup> This range is underneath and above the operating temperature range, within the short circuit is fully functional and could be used without damage.

## Technical Data Sheet RPC-1.35 Short Circuit Plug P9S12S-000D3 RPS P9S12S-000D3

## **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 Rosenberger standards**, national / international standards are not available. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

## **Accredited Calibration**

Not available.

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

## Calibration interval

Recommendation

12 months

## **Packing**

Standard Weight 1 pce in box 5.8 g/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	
Marcel Panicke	22.08.17	Lars Ramtke	18.11.19	8.11.19		19-2148	Marion Striegler	18	18.11.19	
Rosenberger Hochfrequenztechnik GmbH & Co. KG							Pí	age		

Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de

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