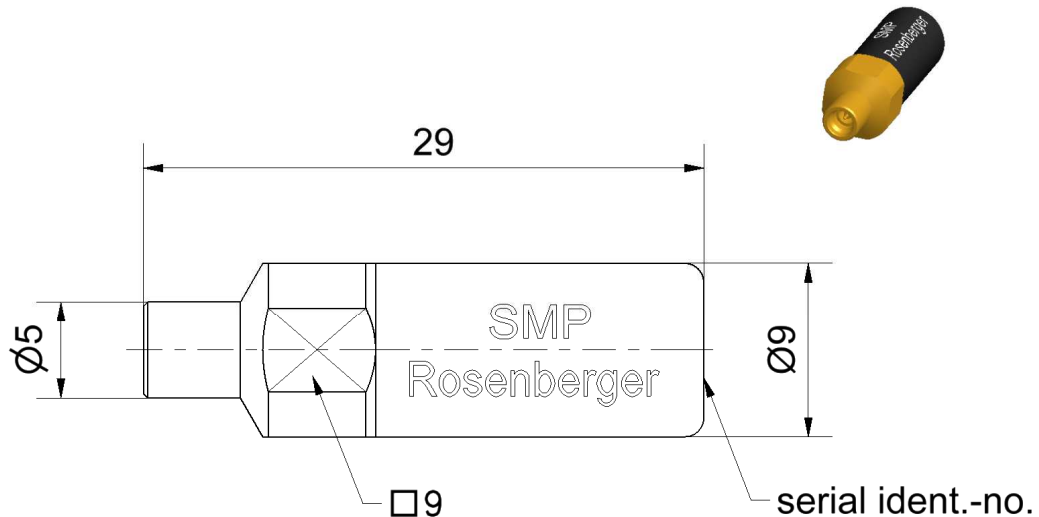




All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface

According to

MIL-STD-348

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts

Center conductor
Outer conductor

Material

CuBe
CuBe

Plating

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

Electrical data

Frequency range	DC to 40 GHz
Return loss	≤ 0.20 dB, DC to 4 GHz
	≤ 0.40 dB, 4 GHz to 18 GHz
	≤ 0.80 dB, 18 GHz to 40 GHz
Error from nominal phase ¹	≤ 2.5°, DC to 4 GHz
	≤ 6.0°, 4 GHz to 18 GHz
	≤ 8.0°, 18 GHz to 40 GHz

¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Short Inductance

Mechanical data

Mating cycles	≥ 100
Engagement force	
- Full detent	68 N
Disengagement force	
- Full detent	22 N
Gauge	0.00 mm to 0.05 mm

General standard definition

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_0 / Impedance / Z_0	50 Ω
Offset Delay	21.6816 ps
Length (electrical) / Offset Length	6.50 mm
Offset Loss	3.50 G Ω /s
Loss	0.0131 dB/ $\sqrt{\text{GHz}}$
Short Inductance ²	

² Short Inductances are determined individually for each Short 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
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³ Temperature range over which these specification are valid.

⁴ 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		Rosenberger						
SMP	Short Circuit Plug – full detent	19S12S-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 Rosenberg 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 Rosenberg homepage. Calibration interval <table><tr><td>Recommendation</td><td>12 months</td></tr></table> Packing <table><tr><td>Standard</td><td>1 pce in box</td></tr><tr><td>Weight</td><td>8.0 g/pce</td></tr></table>			Recommendation	12 months	Standard	1 pce in box	Weight	8.0 g/pce
Recommendation	12 months							
Standard	1 pce in box							
Weight	8.0 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	
Marion Striegler	11.09.15	Markus Müller	07.11.16	c00	15-1629	Marion Striegler	07.11.16	
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de				Tel. : +49 8684 18-0 Email : info@rosenberger.de			Page 3 / 3	

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