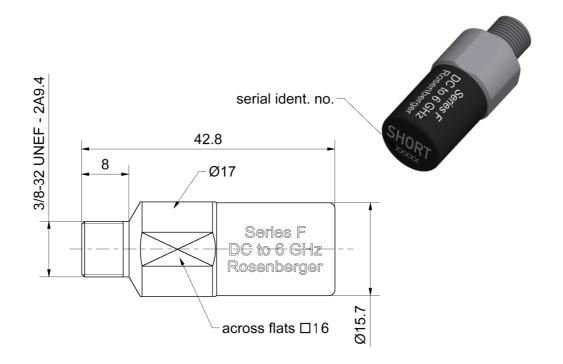
Technical Data Sheet		Rosenberger				
F 75 Ω	Short Circuit Jack	74K12S-001S3				



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

Interface

According to

IEC 61169-24¹, EIA-550

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts

Center contact

Outer contact

Material Plating

CuBe Gold, min. 1.27 µm, over nickel

Stainless steel Passivated

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¹ Accepts only limited pin diameter, see "Mechanical data".

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Rosenberger

F 75 Ω

Short Circuit Jack

Technical Data Sheet

74K12S-001S3

Electrical data

Frequency range DC to 6 GHz

Return loss \leq 0.10 dB, DC to 4 GHz

 \leq 0.15 dB, 4 GHz to 6 GHz

Error from nominal phase² $\leq 1.0^{\circ}$, DC to 4 GHz

 \leq 1.5°, 4 GHz to 6 GHz

Mechanical data

 $\begin{array}{ll} \text{Mating cycles} & \geq 1000 \\ \text{Maximum torque} & 6.78 \text{ Nm} \\ \text{Recommended torque} & 2.00 \text{ Nm} \\ \end{array}$

Permitted male pin diameter³ 0.76 mm to 0.86 mm Gauge 0.00 mm to 0.10 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 / $Z_{\rm o}$} & 75 \ \Omega \\ \mbox{Offset Delay} & 53.370 \ ps \\ \mbox{Length (electrical) / Offset Length} & 16.00 \ mm \\ \mbox{Offset Loss} & 2.40 \ G\Omega/s \\ \mbox{Loss} & 0.0148 \ dB/\sqrt{\mbox{GHz}} \end{array}$

Short Inductance4

Environmental data

Operating temperature range⁵ $+20 \,^{\circ}\text{C}$ to $+26 \,^{\circ}\text{C}$ Rated temperature range of use⁶ $0 \,^{\circ}\text{C}$ to $+50 \,^{\circ}\text{C}$ Storage temperature range $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$

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² The nominal phase is defined by the Offset Delay, the Offset Loss and the Short Inductance.

³ Connecting a F plug with larger male pin diameter will damage female contact fingers of this Short circuit. Use "full range adaptor" 74S121-K22S3 instead.

⁴ Short Inductances are determined individually for each Short circuit and are documented in a Calibration Certificate.

⁵ Temperature range over which these specification are valid.

⁶ This range is underneath and above the operating temperature range, within the short circuit is fully functional and could be used without damage.

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Rosenberger **Technical Data Sheet Short Circuit** F 75 Ω 74K12S-001S3 Jack

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 38.5 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	08.08.18	Markus Müller	09.05.19		b00	19-0897	Marion Striegler	. (09.05.19
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