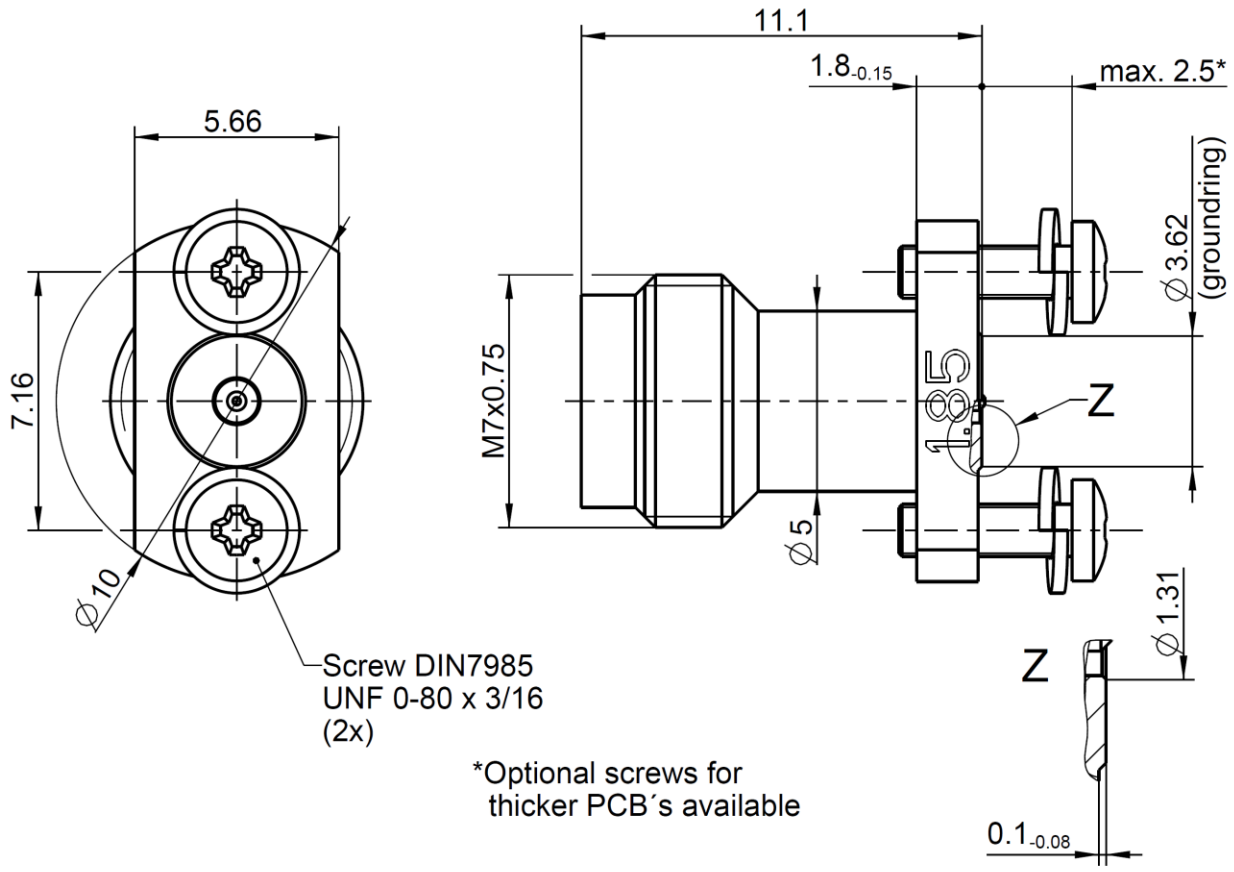
Technical Data Sheet		Rosenberger
RPC-1.85	Straight Jack PCB Economic Solderless Connector	**08K721-40MS3**



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

Interface

According to	IEC 61169-32
Mechanically compatible with	RPC-2.40

Documents

PCB layout	B 594C

Material and plating

Connector parts	**Material**	**Plating**
Center contact	CuBe	Gold, min. 1.27 µm, over chemical nickel
Outer contact	Stainless steel	Passivated
Dielectric	PTFE	

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Electrical data

Impedance	50 Ω
Frequency	DC to 70 GHz
Return loss	≥ 21 dB, DC to 26.5 GHz ≥ 15 dB, 26.5 GHz to 40 GHz ≥ 14 dB, 40 GHz to 50 GHz ≥ 10 dB, 50 GHz to 70 GHz
Insertion loss	$\leq 0.05 \times \sqrt{f(GHz)}$ dB
Insulation resistance	≥ 5 GΩ
Center contact resistance	≤ 4.0 mΩ
Outer contact resistance	≤ 2.5 mΩ
Test voltage	500 V rms
Working voltage	150 V rms
RF-leakage	≥ 100 dB up to 1 GHz

- VSWR in application depends decisive on PCB layout -

Mechanical data

Mating cycles Interface	≥ 500
Mating cycles PCB side	≥ 300 typical (at 20°C, sea level, non-permanent duration)
Mating force PCB side	≤ 20 N
Center contact captivation	≥ 27 N
Coupling test torque RPC-1.85	1.65 Nm
Typically torque for the screws	0.15 Nm
Recommended torque RPC-1.85	0.80 Nm to 1.10 Nm

Environmental data

Storage temperature range	-40°C to +85°C
Operating temperature range	-0°C to +85°C
Thermal shock	IEC 61169-1, Subclause 9.4.4
Corrosion	IEC 61169-1, Subclause 9.4.6
Vibration	IEC 61169-1, Subclause 9.3.3
Shock	IEC 61169-1, Subclause 9.3.14
Moisture resistance	IEC 61169-1, Subclause 9.4.3
RoHS	compliant

Accessories

Available Screws DIN 7985-H-A2 UNF 0-80 (cylinder head screw) for different PCB lengths.

3/16” length = Standard (already included with the connector)	DIN7985-H-A2 UNF 0-80x3/16
1/4” length = Optional (PCB thickness min. 1.2 mm to max. 4.2 mm)	DIN7985-H-A2 UNF 0-80x1/4
5/16” length = Optional (PCB thickness min. 2.8 mm to max. 5.7 mm)	DIN7985-H-A2 UNF 0-80x5/16
3/8” length = Optional (PCB thickness min. 4.4 mm to max. 7.4 mm)	DIN7985-H-A2 UNF 0-80x3/8
7/16” length = Optional (PCB thickness min. 6.0 mm to max. 8.9 mm)	DIN7985-H-A2 UNF 0-80x7/16

Tooling

N/A

Weight

2.4 g/pce

Draft	Date	Approved	Date
Martin Moder	09.01.17	H. Babinger	26.07.19

Rev.	Engineering change number	Name	Date
b00	19-1289	S. Schmid	23.07.19

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