



All dimensions are in mm.

	Plug (male)		Jack (female)	
	min.	max.	min.	max.
A ¹⁾	0.793	0.813	0.793	0.813
B ¹⁾	1.84	1.86	1.84	1.86
C	4.725	4.749	4.770	4.790
D ¹⁾	0.005	0.05	0.005	0.05
E ¹⁾	0.506	0.520	see ²⁾	
F	M7 x 0.75 - 6H		M7 x 0.75 - 6g	
G	1.36	1.44	---	---
H	hex 8		---	

¹⁾ could be divergent for metrology components

²⁾ Slotted contact; dimensions to meet reflection factor requirements, mating characteristics and connector durability when mated with a 0.505 mm to 0.52 mm pin.

Interface

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

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RFB00035

Draft	Date	Approved	Date	Rev.	Engineering Change Number	Name	Date
R. Neuhauser	11.10.19	H. Babinger	30.09.20	100	20-1230	G. Schiele	30.09.20
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Technical Data

Rosenberger

08

RPC-1.85

08-000-000_TD

Electrical data

Impedance	50 Ω
Frequency range	DC to 70 GHz
Return loss	see individual product data sheet
Insertion loss	see individual product data sheet
Insulation resistance	$\geq 5 \text{ G}\Omega$
Proof voltage (at sea level)	500 V rms or as limited by used cable
Working voltage (at sea level)	150 V rms or as limited by used cable
RF-leakage	$\geq 100 \text{ dB}$ up to 1 GHz

Mechanical data

Mating cycles	≥ 500
Center contact captivation: axial	$\geq 20 \text{ N}$
Coupling torque recommended	0.80 Nm to 1.10 Nm
Coupling test torque	1.65 Nm

Environmental data

Temperature range	-40 °C to +85 °C
Thermal shock	IEC 61169-1, Subclause 9.4.4
Corrosion resistance	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
Max. soldering temperature (PCB)	IEC 61760-1, +260 °C for 10 sec.
RoHS	compliant

Materials ³⁾

Connector parts

	Material	Plating
Center contact	Beryllium copper	gold-plated
Outer contact	Stainless steel	passivated
Dielectric	PEEK	

³⁾ These are standard materials from which deviations are possible. Please see individual product datasheet for used materials

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