

SMA GENERAL DATASHEET

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Applicable Standards

Interface according to

Standard: IEC 61169-16, MIL-C-39012

Electrical characteristics

Characteristic impedance		50	Ω	
Frequency range		DC to 18	GHz	
Return loss (typical)	DC - 3 GHz	≥ 30	dB	straight, semi-rigid cable
	3 - 6 GHz	≥ 28	dB	straight, semi-rigid cable
	6 - 10 GHz	≥ 25	dB	straight, semi-rigid cable
	10 - 18 GHz	≥ 20	dB	straight, semi-rigid cable
RF-Leakage	DC - 1 GHz	≥ -100	dB	Interface
Insertion loss		$\leq 0.03 \times \sqrt{f}$ [GHz]	dB	straight, semi-rigid cable
Insulation resistance		≥ 5	$G\Omega$	
Center contact resistance		≤ 3	$m\Omega$	
Outer contact resistance		≤ 2	$m\Omega$	
Working current		≤ 2	A DC	
Test voltage		1000	V rms	
Working voltage		335	V max.	
Intermodulation 3rd order	@ 2x43dBm		dBc	Data on request
Power handling	@ 1.0 GHz		W	Data on request
	@ 4.0 GHz		W	Data on request

Mechanical characteristics

Durability (matings)		≥ 500		
Coupling nut retention force		> 270	N	
Center contact retention force (axial)		> 28	N	
Coupling torque, standard		0,45	Nm	recommended
Coupling torque, special		0,8 - 1,1	Nm	recommended
Max. coupling torque standard / special		0,6 / 1,7	Nm	

Materials

Outer contact	CuZn / Niosta
Center contact	CuBe / CuZn
Crimp ferrule	Cu / CuZn
Other metal parts	CuZn
Dielectric	PTFE
Gasket	Rubber

Standard plating

Outer contact	Ag / white bronze
Centre contact	Au / Ag / white bronze
Crimp ferrule	Ag / white bronze
Other metal parts	Ag / white bronze

Environmental influences

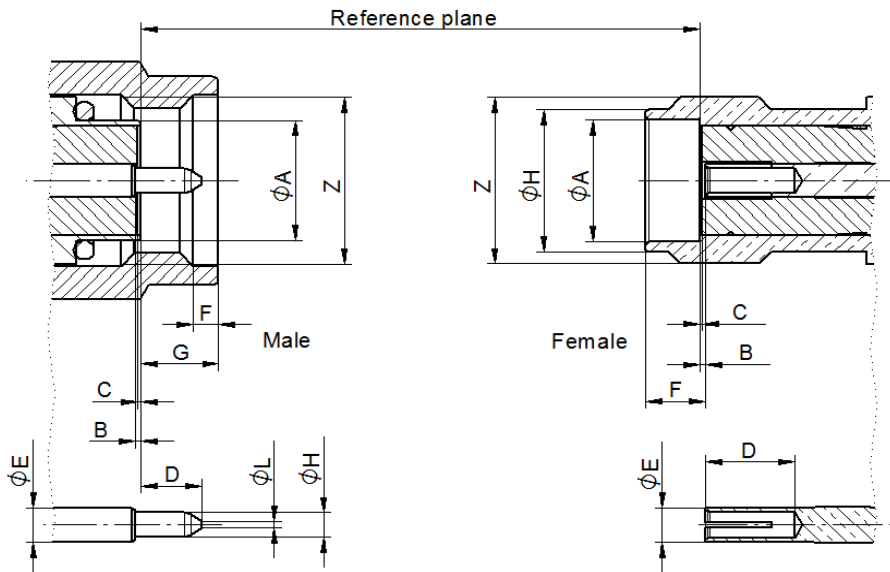
Temperature range	-55°C up to +125°C
Test categories	DIN 40045 / IEC 55/125/56
Relative humidity	MIL-STD-202, Method 106
Thermal shock	MIL-STD-202, Method 107, Cond. B
Shock	MIL-STD-202, Method 213, Cond. J
Vibration	MIL-STD-202, Method 204, Cond. B
Corrosion	MIL-STD-202. Method 101. Cond. B
RoHS	compliant

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	Male		Female	
	min.	max.	min.	max.
A		4,59	4,6	4,67
B		0,25		0,25
C		0,18		0,18
D		2,54	2,92	
E	1,24	1,29	1,24	1,29
F	0,38	1,14	1,88	1,98
G		3,43	0,38	1,14
H	0,9	0,94	5,28	5,49
I			4,32	
K			5,54	
L		0,38		
Z	1/4-36 UNS-2B		1/4-36 UNS-2A	

Dimension in mm

Some connectors may have a specification that differs from the above mentioned data.

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.

Date	Alteration	Signature		

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