

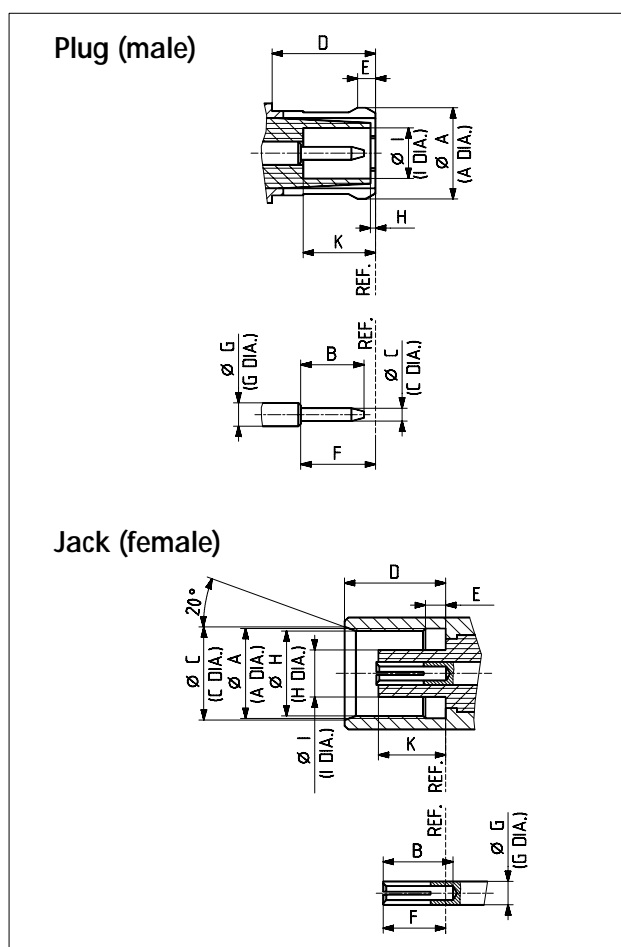


SERIES MCX 50Ω MICROAX CONNECTORS

Description

MCX 50 Ω miniature snap-on connectors from SUHNER offer you an excellent blend of size, weight, durability and performance for applications such as mobile and fixed telecommunications, in GPS applications and in Test+Measurement systems for testing instruments and apparatus. They are designed for frequencies up to 6 GHz and are tested according to the international standard CECC 22220. And they meet all the high requirements that micro coaxial connectors are expected to satisfy today.

Interface Dimensions



Interface Dimensions in mm / inches

	Plug		Jack	
	min.	max.	min.	max.
A	3.72/.146*	3.80/.150*	3.60/.142	3.70/.146
B	2.49/.098	2.59/.102	2.80/.110	---
C	0.48/.019	0.53/.021	3.75/.148	3.85/.152
D	4.15/.163	---	4.00/.157	4.12/.162
E	0.70/.028	0.75/.030	0.75/.030	0.85/.033
F	2.80/.110	3.20/.126	2.30/.091	2.80/.110
G	0.95/.037 nom.		0.95/.037 nom.	
H	---	0.30/.012	3.42/.135	3.48/.137
I	2.00/.079	2.07/.081	1.80/.071	1.98/.078
K	2.80/.110	3.20/.126	2.60/.102	2.80/.110

* prior to slotting

Interface dimensions conformable to the Standards:

Europe: CECC 22220

Technical Data

ELECTRICAL DATA	CECC 22000	REQUIREMENTS
Impedance		50 Ω
Frequency range		DC ... 6 GHz
RF-leakage (measured at 1 GHz) - connectors for flexible cables - connectors for semi-rigid cables	4.4.8	≥ 60 dB ≥ 70 dB
Dielectric withstanding voltage at sea level	4.4.5	≥ 750 V rms, 50 Hz (depending on cable)
Working voltage at sea level - unmated		≥ 170 V rms, 50 Hz (depending on cable)
Working voltage at 21 000 m / 70 000 ft. - unmated		≥ 42 V rms, 50 Hz (depending on cable)
Insulation resistance	4.4.4	$\geq 10^4$ M Ω
Contact resistance - centre contact - outer contact	4.4.2 4.4.3	≤ 5 m Ω ≤ 1 m Ω

MECHANICAL DATA	CECC 22000	REQUIREMENTS
Engagement force	4.5.1	≤ 25 N / 5.6 lbs
Disengagement force	4.5.1	8 N ... 20 N / 1.8 lbs ... 4.5 lbs
Contact captivation	4.5.2	≥ 10 N / 2.3 lbs
Cable retention force ¹⁾		see pages 42 - 48
Durability (matings)	4.7.1	≥ 500

1) value considers maximum load of the cables without irreversible variations of specifications.

ENVIRONMENTAL DATA	CECC 22000	EQUIVALENT TEST CONDITIONS
Temperature range		- 55° C ... + 155° C / - 67° F ... + 311° F
Climatic category		IEC → 55 / 155 / 21
High temperature endurance test	4.7.2	MIL-STD-202, Method 108A, Condition D
Thermal shock	4.6.7	MIL-STD-202, Method 107, Condition F
Moisture resistance	4.6.6	MIL-STD-202, Method 203, Condition C
Corrosion	4.6.10	Saltspray test acc. to MIL-STD-202, Method 101, Condition B
Vibration	4.6.3	MIL-STD-202, Method 204, Condition D

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

MATERIAL DATA

CONNECTOR PART	STANDARDS	MATERIAL	PLATING
Bodies	QQ-B-626	brass	gold or SUCOPLATE®
Pin contact	QQ-B-626	brass	gold
Socket contact	QQ-C-530	beryllium-copper, hardened	gold
Outer contacts plug	QQ-C-530	beryllium-copper, hardened	gold or SUCOPLATE®
jack	ISO CuNi1Pb1P QQ-B-626	copper (spring) brass	
Crimp ferrules	SUHNER® specification QQ-B-626	copper brass	gold or SUCOPLATE®
Insulators		PTFE or PFA	

Other materials and platings on request.