



# SERIES MMCX MINIATURE MICROAX CONNECTORS

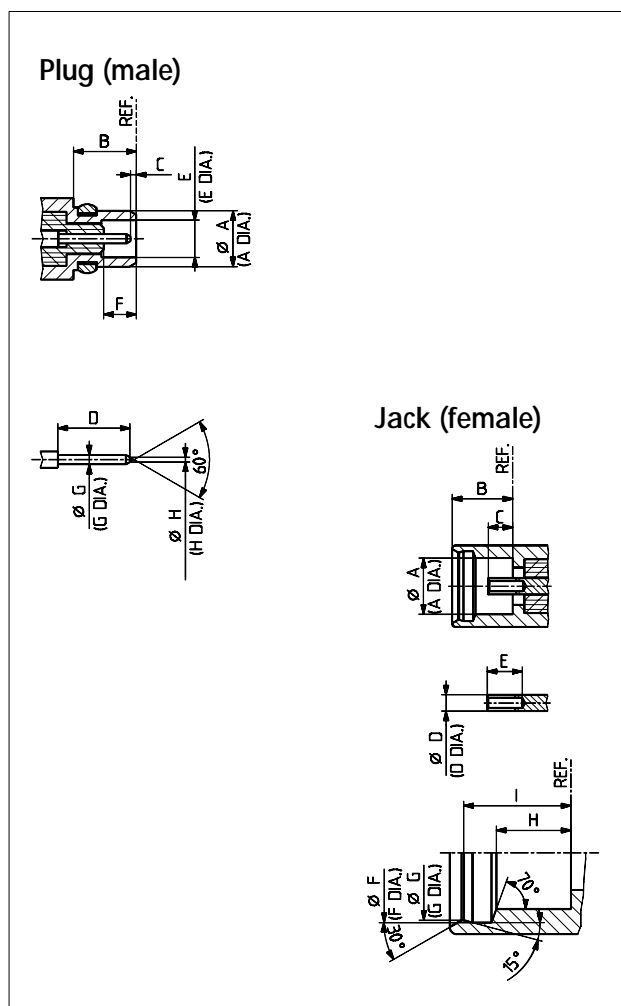
## Description

SUHNER MMCX connectors are intended for use in applications where the smallest dimensions have to be achieved. MMCX connectors can be used in applications from DC to 6 GHz.

The reliable "snap-on" coupling mechanism ensures that the electrical parameters are consistently reproduced.

Due to its non-slotted outer contact, the MMCX series provides a low RF-leakage.

## Interface Dimensions



## Interface Dimensions in mm / inches

	Plug		Jack	
	min.	max.	min.	max.
A	---	2.40/.094	2.41/.095	---
B	2.70/.106	---	---	2.65/.104
C	0.00/.000	0.25/.010	0.90/.035	1.20/.047
D	1.23/.048	---	0.70/.028 nom.	
E	1.58/.062	1.62/.064	1.40/.055	---
F	1.23/.048	---	3.00/.118	3.04/.120
G*	0.38/.015	0.42/.017	2.88/.113	2.92/.115
H	---	0.20/.008	1.57/.062	1.63/.064
I*	---	---	2.26/.089	2.34/.092

	Jack			
	min.	max.	min.	max.
G	2.88/.113	2.90/.114	2.90/.114	2.92/.115
I	2.30/.092	2.34/.092	2.26/.089	2.30/.090

Note: I is related to G

## Technical Data

ELECTRICAL DATA	CECC 22000	TEST REQUIREMENTS
Impedance		50 $\Omega$
Frequency range		DC ... 6 GHz
VSWR (typical values)	4.4.1	see table below
RF leakage (measured at 1 GHz) - connectors for flexible cables - connectors for semi-rigid cables	4.4.8	$\geq 60$ dB $\geq 70$ dB
Dielectric withstanding voltage (at sea level)	4.4.5	500 V rms, 50 Hz
Working voltage (at sea level)		$\leq 170$ V rms, 50 Hz
Insulation resistance	4.4.4	$\geq 10^3$ M $\Omega$
Contact resistance - centre contact - outer contact	4.4.2 4.4.3	$\leq 5.0$ m $\Omega$ $\leq 2.5$ m $\Omega$

TYPICAL VSWR	FREQUENCY RANGE			CABLE GROUP
	1 GHZ	2.5 GHZ	6 GHZ	
straight connectors	1.03	1.08	1.12	Y3, Y11
	1.04	1.08	1.12	U1
right angle connectors	1.03	1.08	1.13	Y3, Y11
	1.07	1.12	1.25	U1

Other connectors and cables on request

MECHANICAL DATA	CECC 22000	TEST REQUIREMENTS
Engagement force	4.5.4	$\leq 15$ N / <i>3.4 lbs</i>
Disengagement force	4.5.4	6 N ... 15 N / <i>1.4 lbs ... 3.4 lbs</i>
Contact captivation	4.5.2	$\geq 10$ N / <i>2.3 lbs</i>
Cable retention forces <sup>1)</sup>	4.5.5	see pages 42 - 48
Durability (matings)	4.7.1	$\geq 500$

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

ENVIRONMENTAL DATA	CECC 22000 TEST CONDITIONS	EQUIVALENT MIL TEST CONDITIONS
Temperature range		- 55°C ... + 155°C / - 67°F ... + 311°F
Climatic category acc. to IEC	4.6.5 → 55 / 155 / 21	
Thermal shock	4.6.7 → IEC 68-2-14 Na	MIL-STD-202, Method 107, Condition F
Moisture resistance	4.6.6 → IEC 68-2-3 Ca	MIL-STD-202, Method 106
Corrosion	4.6.10 → IEC 68-2-11 Ka	Saltspray test acc. to MIL-STD-202, Method 101, Condition B
Vibration	4.6.3 → IEC 68-2-6 Fc	MIL-STD-202, Method 204, Condition C

MATERIAL DATA			
CONNECTOR PART	STANDARDS	MATERIAL	PLATING
Bodies, Crimp ferrules	QQ-B-626	brass	gold
Centre contacts	QQ-C-530 QQ-B-626	beryllium-copper, hardened brass	gold
Insulators		PTFE or PFA	

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