

VIA SERIES DATASHEET

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Applicable Standards

Interface according to VIA Interface

Electrical characteristics

Characteristic impedance	50	Ω
Frequency range	DC - 6	GHz
Return loss (only interface, depending on axial misalignment)	36	dB (typ.) DC to 2.5 GHz
	35	dB (typ.) 2.5 to 4 GHz
	32	dB (typ.) 4 to 6 GHz
Power handling	100	W @ 2.2 GHz @ 20°C
RF-Leakage	≥ 70	dB @ DC to 6 GHz
Insertion loss	$\leq 0.1 \times \sqrt{f \text{ (GHz)}}$	dB
Insulation resistance	≥ 5	G Ω
Centre contact resistance	≤ 6	m Ω
Outer contact resistance	≤ 5	m Ω
Proof voltage (at sea level)	500	V rms
Operating voltage (at sea level)	335	V rms
Contact current	≤ 2	A DC
Screening Attenuation	≤ 70	dB up to 6 GHz

Mechanical characteristics

Durability (Mating cycles)	≥ 100		
Axial tolerance	$\pm 1\text{mm}$		
Radial tolerance	4° : board to board distance <16.5mm		
	$\pm 0.6\text{mm}$: board to board distance >16.5mm		
Minimum board to board distance	12mm		
Pitch	$\geq 6.5\text{mm}$		
Engagement force (with adapter)	Limited detent	typ. 20	N
	Smooth bore	typ. 12	N
Disengagement force (with adapter)	Limited detent	min. 15	N
	Smooth bore	min. 5	N

Materials

Outer contact	CuBe-female / Brass-male
Centre contact	CuBe-female / Brass-male
Plastic housing	PA-female
Insulator	LCP-female / PTFE-male

Standard plating

Outer contact	NiP + Au / White bronze
Centre contact	NiP + Au

Environmental influences

Temperature range	-55°C up to +125°C
Thermal shock	MIL-STD-202, Method 107, Condition B
Climatic category	IEC 61169-1, Sub-clause 9.4.5 (+155°C, 250 hours)
Moisture resistance	MIL-STD-202, Methode 106
Vibration	MIL-STD-202, Methode 204, Condition B
Shock	MIL-STD-202, Methode 213, Condition A
max. soldering temperature (PCB connectors)	IEC 61760-1, +260°C for 10 sec
RoHS	compliant

Date: 14.02.2018 I.Fasold
 Approved: 14.02.2018 P.Schuh

Revision: c

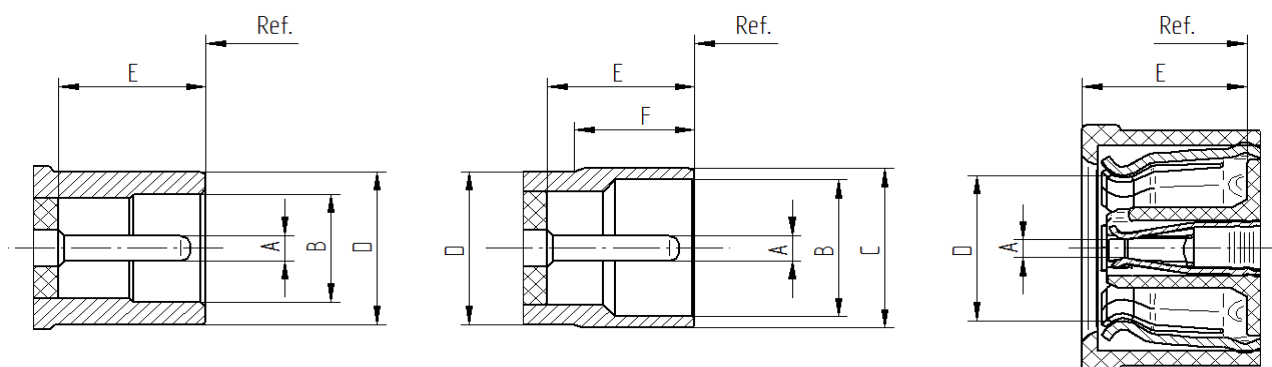
VIA GENERAL DATASHEET

Interface dimensions

Plug - Smooth bore

Plug - Limited detent

Jack



	Male				Female	
	Smooth bore		Limited detent		min.	max.
	min.	max.	min.	max.		
A	∅ 0,68	∅ 0,73	∅ 0,68	∅ 0,73	1)	
B	∅ 2,95	∅ 3,00	∅ 3,76	∅ 3,01	-	-
C	-	-	∅ 4,38	∅ 4,43	-	-
D	∅ 4,18	∅ 4,23	-	-	∅ 3,90	∅ 4,01
E	3,7	-	3,7	-	4,15	4,35
F	-	-	3,1	3,05	-	-

Dimension in mm

1) Resilient dimension to meet electrical and mechanical requirements.

IMS Connector Systems connectors fulfills in principle the indicated technical data. Individual values of the connectors may deviate depending based on applications, design, type of cables, assembly method and execution. Specific product data sheets for particular products can be provided on request from your IMS Connector Systems sales contact.