



Micro-D Filter Connectors General Information

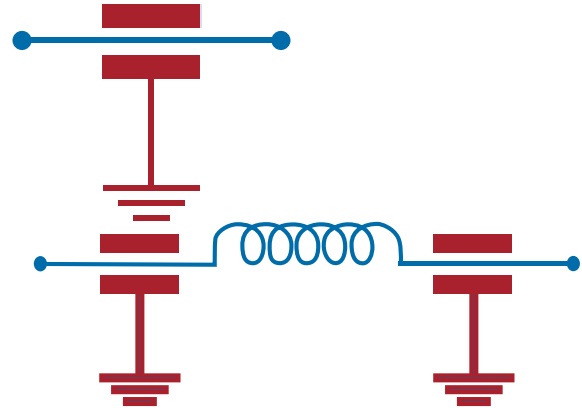
ABOUT MICRO-D FILTER CONNECTORS

Glenair Filter Micro-D connectors are low-pass filters, transmitting DC and low frequency signals while attenuating unwanted high frequency noise. These connectors are available with C filter elements or Pi filters. The filter substrates are constructed with a ceramic planar capacitor array.

Glenair Filter Micro-D's meet the demanding performance requirements of MIL-DTL-83513, except for a reduction in the dielectric withstanding voltage rating to 250 volts DC (higher voltages available on request). The TwistPin contact system assures superior performance in the most demanding applications.

C Filter

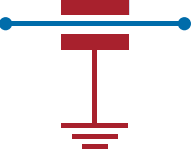
Single capacitor with low self inductance. This configuration is generally used to attenuate high frequency signals. The simple design allows high-frequency EMI to discharge to ground via the surrounding electromagnetic field. C filters occupy the least amount of space and offer lower cost compared to other filter types.




Pi Filter

Dual capacitors with a ferrite inductor positioned between them. The Pi filter provides excellent high-frequency performance due to its sharper rolloff.

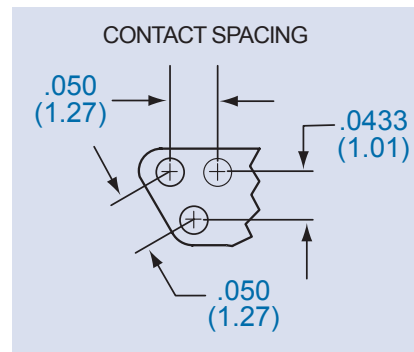
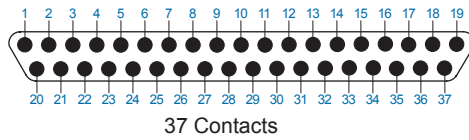
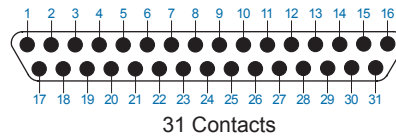
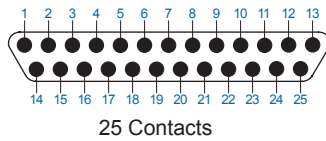
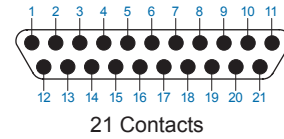
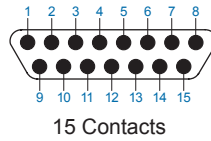
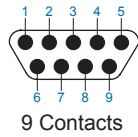
Micro-D C Filter Attenuation and Capacitance Values

C Filter	Filter Class	Capacitance pF	No Load Insertion Loss (dB Minimum)			
			1 MHz	10 MHz	100 MHz	500-1000 MHz
	A	19,000 — 28,000	6	24	41	50
	B	16,000 — 22,500	5	23	39	49
	C	9,000 — 16,500	3	16	35	46
	D	4,000 — 6,000	—	8	28	41
	E	1,650 — 2,500	—	4	21	34
	F	400 — 650	—	—	10	23
	G	200 — 300	—	—	5	17
	J	35 — 60	—	—	1	8

Micro-D Pi Filter Attenuation and Capacitance Values

Pi Filter	Filter Class	Capacitance pF	No Load Insertion Loss (dB Minimum)			
			1 MHz	10 MHz	100 MHz	500-1000 MHz
	A	38,000 — 56,000	10	40	62	66
	B	32,000 — 45,000	8	35	60	62
	C	18,000 — 33,000	5	25	57	60
	D	8,000 — 12,000	1	14	50	58
	E	3,300 — 5,000	—	8	40	52
	F	800 — 1,300	—	2	15	32
	G	400 — 600	—	0.8	13	22
	J	70 — 120	—	—	4	15

Micro-D Filter Connector Contact Arrangements (Face View Pin Connector)



* Consult factory for filtered Micro-D connectors in other arrangements

Performance Specifications	
Current Rating	3 AMP
Dielectric Withstanding Voltage	250 VDC
Working Voltage	100 VDC
Insulation Resistance	5000 Megohms Minimum
Contact Resistance	8 milliohms Maximum
Low Level Contact Resistance	32 milliohms Maximum
Magnetic Permeability	2 μ Maximum
Operating Temperature	-55° C to +125° C
Shock	50 g.
Vibration	20 g.
Mating Force	(10 oz) x (# of Contacts)
Capacitance and Attenuation	(See Table on Preceding Page)

Materials and Finishes	
Connector Shell	Aluminum Alloy 6061 or Stainless Steel, 300 Series, Passivated. See Ordering Info for Aluminum Plating Options.
Insulator	Liquid Crystal Polymer (LCP)
Seals	Fluorosilicone Rubber, Blue
Pin Contact	Beryllium Copper With 50 microinches Gold over Nickel Plating
Socket Contact	Copper Alloy With 50 microinches Gold Over Nickel Plating
Hardware	300 Series Stainless Steel
PCB Terminals	Gold-Plated Copper Alloy, Solder Dipped
Capacitors	Planar Ceramic Array
Inductors	Ferrite
EMI Ground Spring	Beryllium Copper, Gold Plated
Encapsulant	Thermally Conductive Epoxy