

Micro D Series Filtered Connectors

For designs that require even smaller connector packages, APITech's brand has designed a line of EMI filtered Micro D-Subminiature connectors. This line of connectors offers a range of reliable filtering options, including capacitive, ESD versions, several sizes, and termination options. APITech has a Micro D-sub connector to satisfy your smallest space constraints.



Feature

- Light weight
- Compact size
- Environmentally sealed contact area when mated
- Corrosion resistant
- Durable (500 cycles min.)
- Superior electrical performance
- RoHS compliant

Mechanical Specifications

<i>Shell</i>	Aluminum, electroless nickel plated 500 μ in (12.7 μm) minimum
<i>Insulator</i>	High temperature plastic, flammability UL94V-0
<i>Contacts</i>	Copper alloy, gold plated 50 μ in (1.27 μm) minimum
<i>Potting</i>	Flammability UL94V-0
<i>Interfacial Seal</i>	Silicon

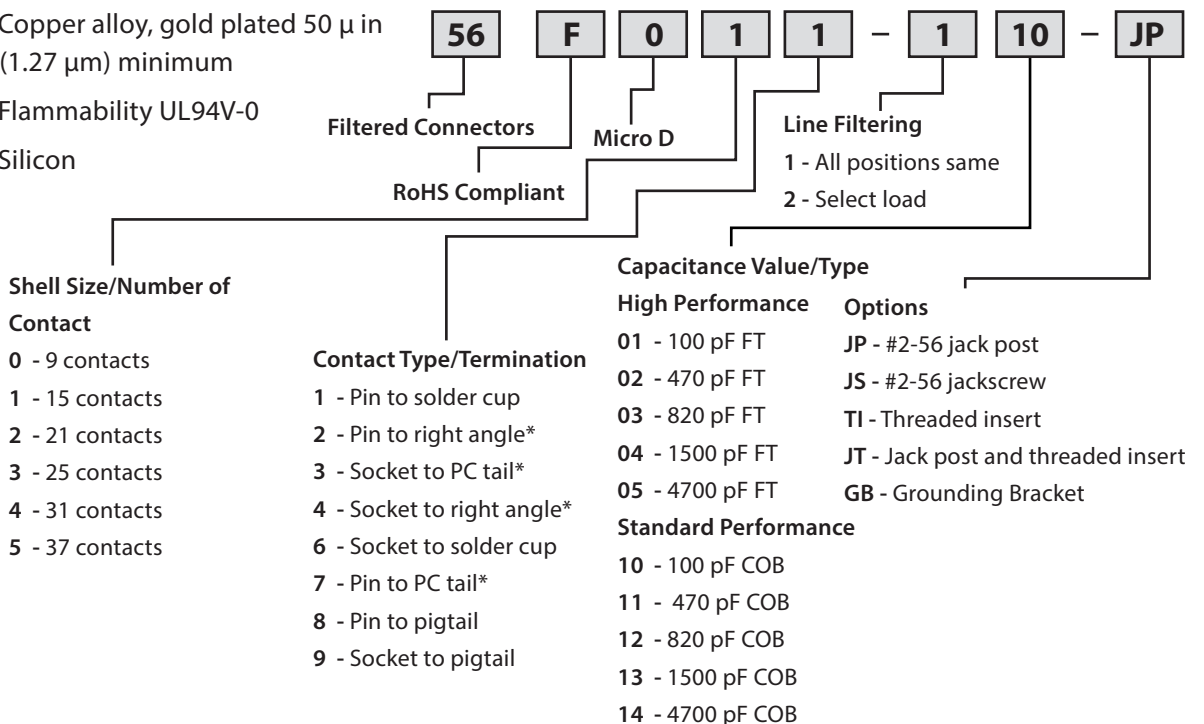
Electrical Specifications

<i>Operating Voltage</i>	100 VDC
<i>Dielectric Withstanding Voltage</i>	300 VDC
<i>Current Rating</i>	3 Amps
<i>Insulating Resistance</i>	5G ohms @ 100 VDC

Ordering Information

Example: 56F011-110-JP

This part number represents a micro D-sub connector with a shell size of 15 and a pin to solder cup configuration. All lines are filtered with same capacitance value, which is 100 pF COB. The connector includes an optional #2-56 jack post.



* Right angle and PC tail length is 0.109. Other lengths available, consult APITech.

All capacitance values ±20% @ 25°C.

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High Performance

Filter Designation	Type	Capacitance		Dielectric Withstanding Voltage	Working Voltage DC -55°C to +125°C	Minimum Insertion Loss - Decibels (dB) 50 ohm system per MIL-STD-220 (no load)							
		Value	Tolerance			5 MHz	10 MHz	20 MHz	50 MHz	100 MHz	200 MHz	500 MHz	1 GHz
01	FT	100 pF	±20%	300V	100V	—	—	—	—	1	6	14	20
02	FT	470 pF	±20%	300V	100V	—	—	2	8	14	20	28	34
03	FT	820 pF	±20%	300V	100V	—	2	6	13	19	25	33	39
04	FT	1500 pF	±20%	300V	100V	—	5	10	18	24	30	38	44
05	FT	4700 pF	±20%	300V	100V	8	14	20	28	34	40	48	54

Standard Performance

Filter Designation	Type	Capacitance		Dielectric Withstanding Voltage	Working Voltage DC -55°C to +125°C	Minimum Insertion Loss - Decibels (dB) 50 ohm system per MIL-STD-220 (no load)							
		Value	Tolerance			5 MHz	10 MHz	20 MHz	50 MHz	100 MHz	200 MHz	500 MHz	1 GHz
10	COB	100 pF	±20%	300V	100V	—	—	—	—	1	6	14	20
11	COB	470 pF	±20%	300V	100V	—	—	2	8	14	20	28	32
12	COB	820 pF	±20%	300V	100V	—	2	6	13	19	25	32	32
13	COB	1500 pF	±20%	300V	100V	—	5	10	18	24	30	32	32
14	COB	4700 pF	±20%	300V	100V	8	14	20	28	32	32	32	32

Right Angle PCB

Receptacle

Plug

F SP. ⌀ 0.050(1.27) = H
E SP. ⌀ 0.050(1.27) = G

.100 (2.54)
.350 (8.89)
.093 (2.36)
.419 (10.64)
.195 (4.95)

F SP. ⌀ 0.050(1.27) = H
E SP. ⌀ 0.050(1.27) = G

.100 (2.54)
.350 (8.89)
.093 (2.36)
.406 (10.31)
.183 (4.65)

SKT 1

.298 (7.57)
.018(0.46) TYP.

PIN 1

.298 (7.57)
.018(0.46) TYP.

Size	A	B	C (RCPT)	C (Plug)	D	E	F	G	H
9	.775 (19.69)	.565 (14.35)	.388 (9.86)	.330 (8.38)	.390 (9.91)	4	5	.200 (5.08)	.250 (6.35)
15	.925 (23.50)	.715 (18.16)	.538 (13.67)	.480 (12.19)	.540 (13.72)	7	8	.350 (8.89)	.400 (10.16)
21	1.075 (27.31)	.865 (21.97)	.688 (17.48)	.630 (16.00)	.690 (17.53)	10	11	.500 (12.70)	.550 (13.97)
25	1.175 (29.85)	.965 (24.51)	.788 (20.02)	.730 (18.54)	.790 (20.07)	12	13	.600 (15.24)	.650 (16.51)
31	1.325 (33.66)	1.115 (28.32)	.938 (23.83)	.880 (22.35)	.940 (23.88)	15	16	.750 (19.05)	.800 (20.32)
37	1.475 (37.47)	1.265 (32.13)	1.088 (27.64)	1.030 (26.16)	1.090 (27.69)	18	19	.900 (22.86)	.950 (24.13)

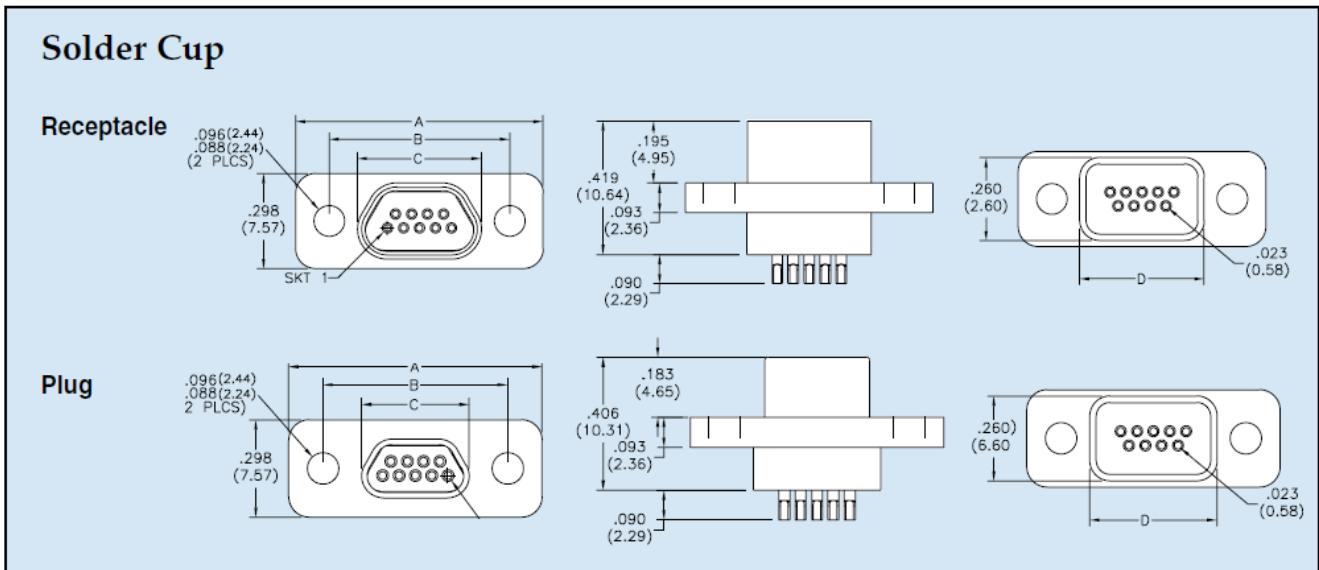
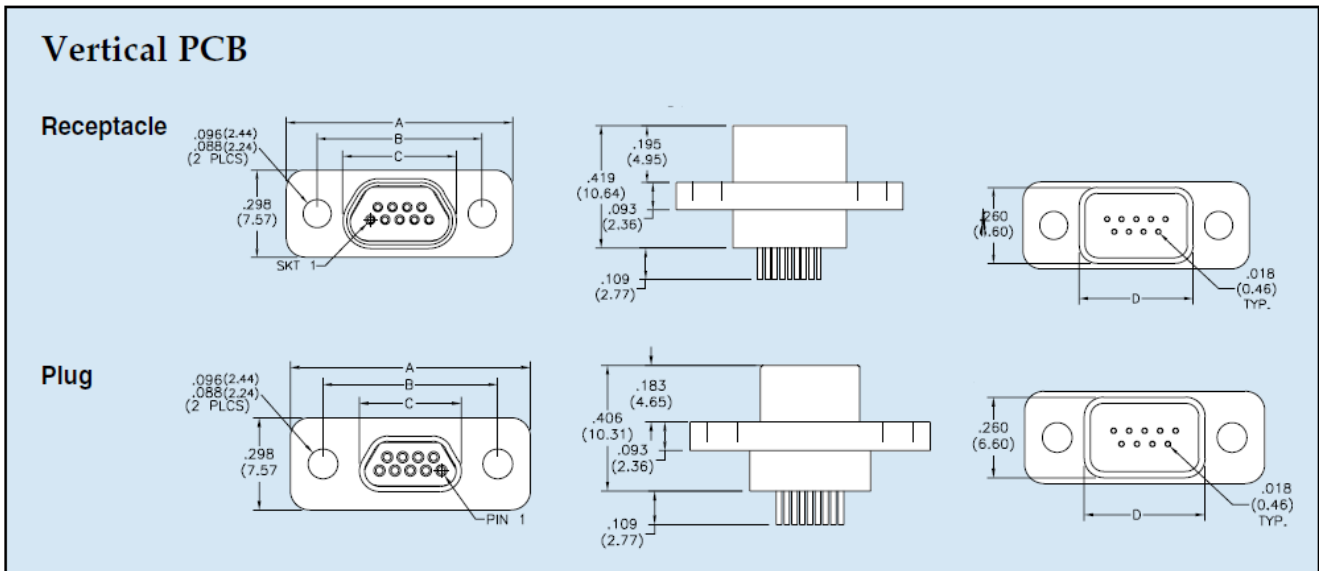
Dimensions in inches (mm)

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Filtered Connectors

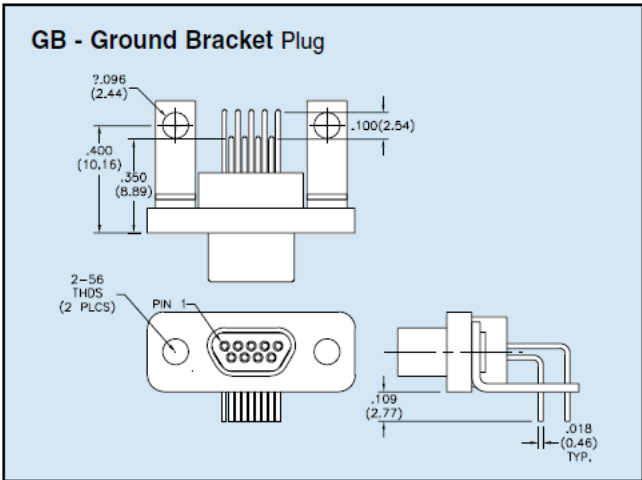
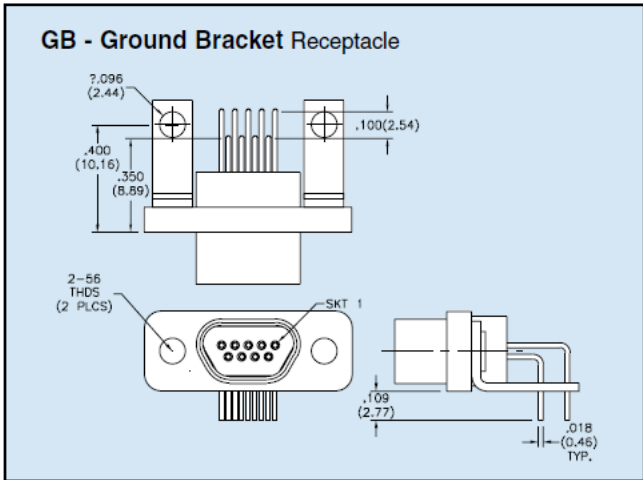
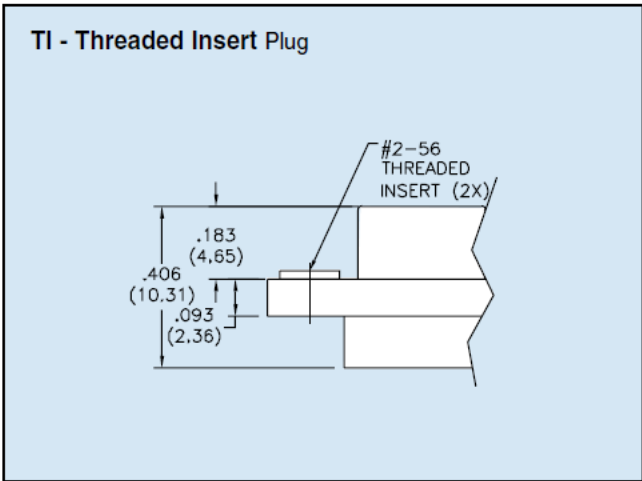
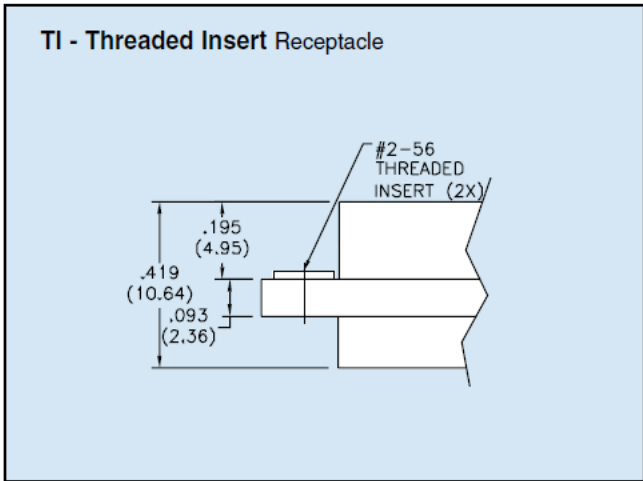
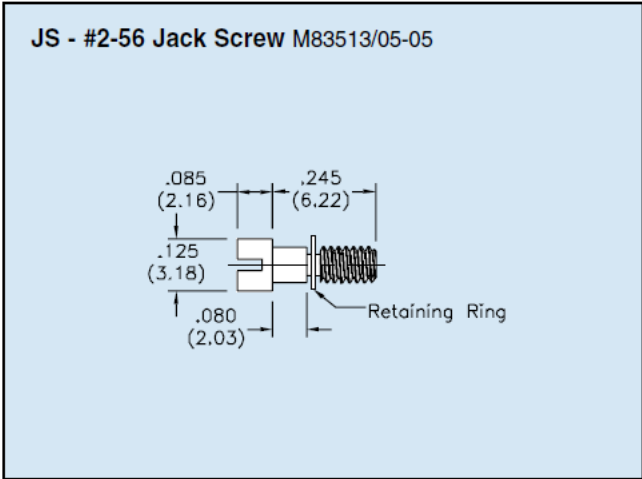
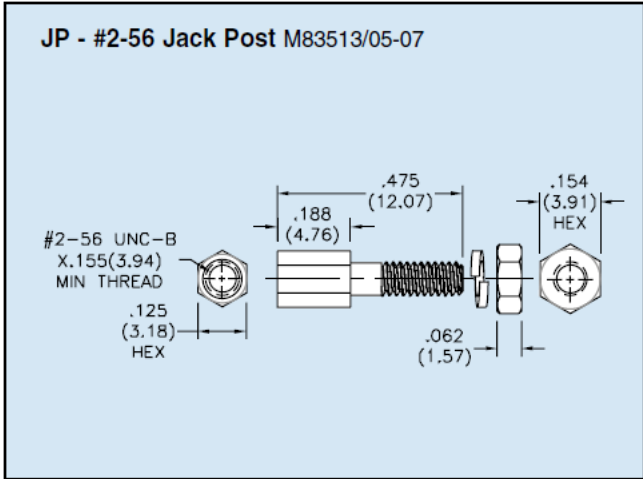
Size	A	B	C (RCPT)	C (Plug)	D
9	.775 (19.69)	.565 (14.35)	.388 (9.86)	.330 (8.38)	.390 (9.91)
15	.925 (23.50)	.715 (18.16)	.538 (13.67)	.480 (12.19)	.540 (13.72)
21	1.075 (27.31)	.865 (21.97)	.688 (17.48)	.630 (16.00)	.690 (17.53)
25	1.175 (29.85)	.965 (24.51)	.788 (20.02)	.730 (18.54)	.790 (20.07)
31	1.325 (33.66)	1.115 (28.32)	.938 (23.83)	.880 (22.35)	.940 (23.88)
37	1.475 (37.47)	1.265 (32.13)	1.088 (27.64)	1.030 (26.16)	1.090 (27.69)

Dimensions in inches (mm)



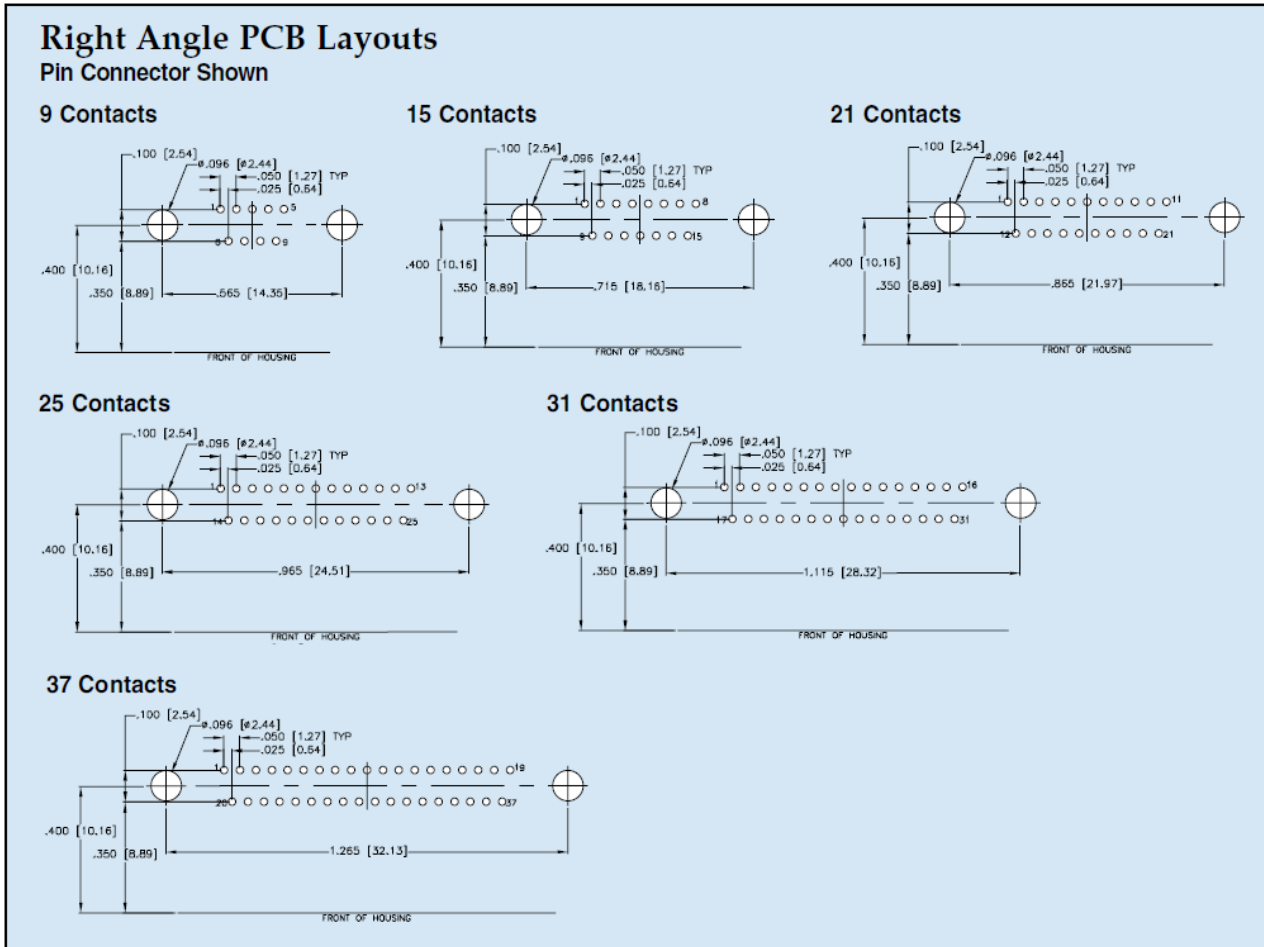
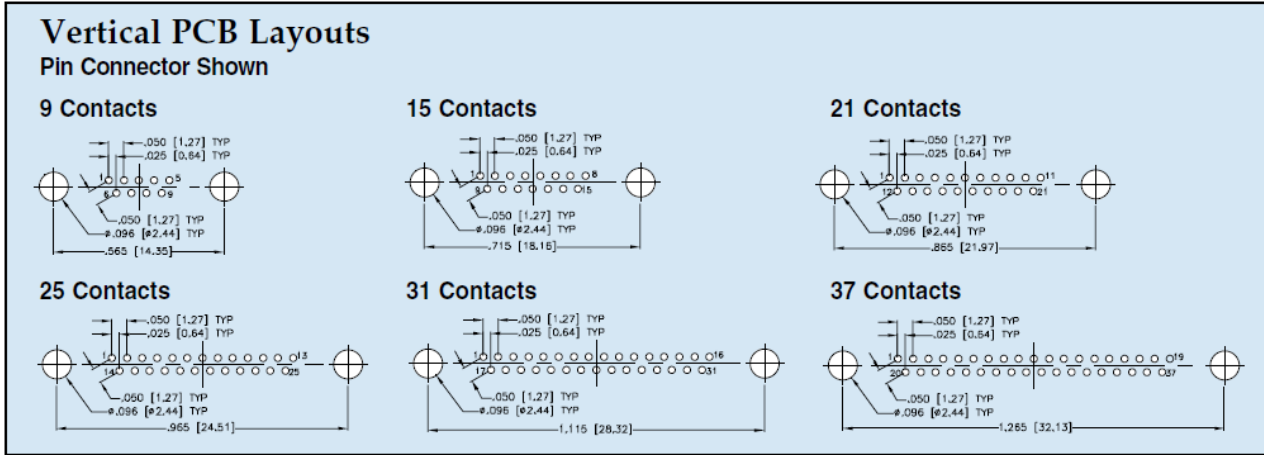
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Options



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Board and Panel Cutouts

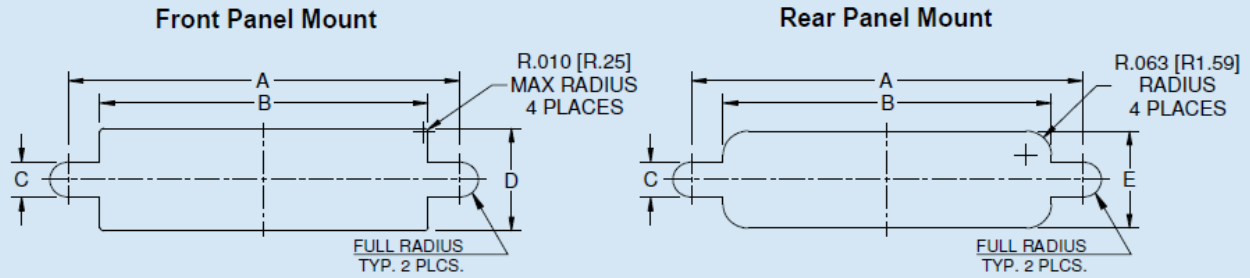


NOTES: PC Tail Diameter 0.018 ± 0.002 (0.46 ± 0.05) Contact numbers shown are pin connector.
Reverse for socket. Patterns shown are for connector mounting side of PC board.

Micro D Series Filtered Connectors

Board and Panel Cutouts

Panel Cutout



Dimensions in inches (mm)

Layout	A ±0.003 (±0.08)	B ±0.002 (±0.05)	C ±0.002 (±0.05)	D ±0.002 (±0.05)	E ±0.005 (±0.13)
9	0.565 (14.35)	0.410 (10.41)	0.092 (2.34)	0.270 (6.86)	0.256 (6.50)
15	0.715 (18.16)	0.560 (14.22)	0.092 (2.34)	0.270 (6.86)	0.256 (6.50)
21	0.865 (21.97)	0.710 (18.03)	0.092 (2.34)	0.270 (6.86)	0.256 (6.50)
25	0.965 (24.51)	0.810 (20.57)	0.092 (2.34)	0.270 (6.86)	0.256 (6.50)
31	1.115 (28.32)	0.960 (24.38)	0.092 (2.34)	0.270 (6.86)	0.256 (6.50)
37	1.265 (32.13)	1.110 (28.19)	0.092 (2.34)	0.270 (6.86)	0.256 (6.50)