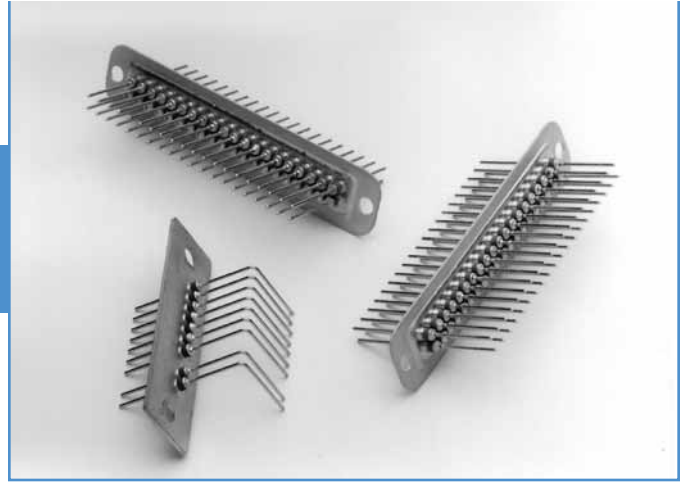


Bolt-in Style Filter Plates

The Bolt-in style plate provides an excellent method for electronic system interface and EMI filtering. Bolt-in filter plates are available in a variety of plate sizes and up to 74 lines per plate in hi-density (2mm) and 60 pins per plate in standard density (.100"). On the larger plate sizes, Spectrum ensures structural integrity through a unique, patent pending, coining process. The drawing on page 111 shows an electronic system utilizing Bolt-in style filter plates.



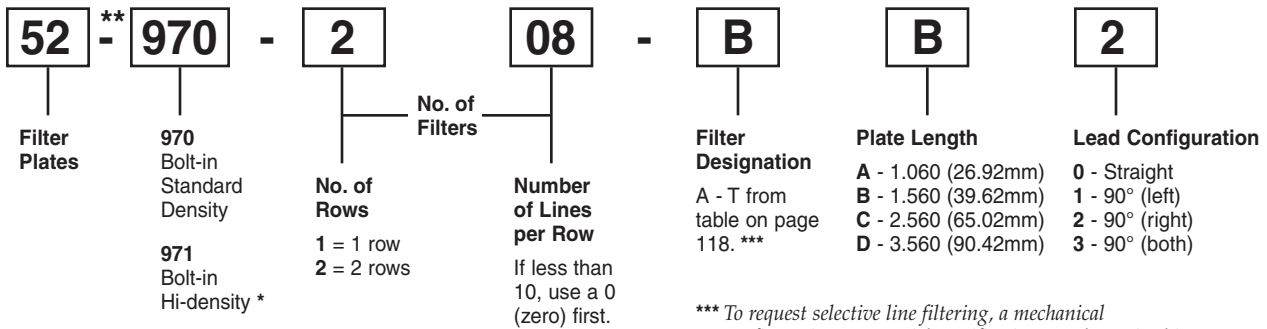
Bolt-in Filter Plate Advantages

- Eliminates the need to assemble filters into a bulkhead
- Excellent filtering from 5 MHz to 1 GHz
- Total cost savings vs. customer installed discrete filter elements
- Ideal for isolation of electronic compartments to suppress EMI
- Outperforms surface mount filters over 50 MHz
- Improved reliability
- Mixed capacitance values and schematics
- Maximize real estate on PCB
- Available in RoHS compliant versions

Ordering Information

Example: 52-970-208-BB2

The part number shown represents a Bolt-in style filter plate with 2 rows, 8 filters per row. Filters are C style with a capacitance value of 100pF. The plate length is 1.560", and the leads are bent 90° to the right side.

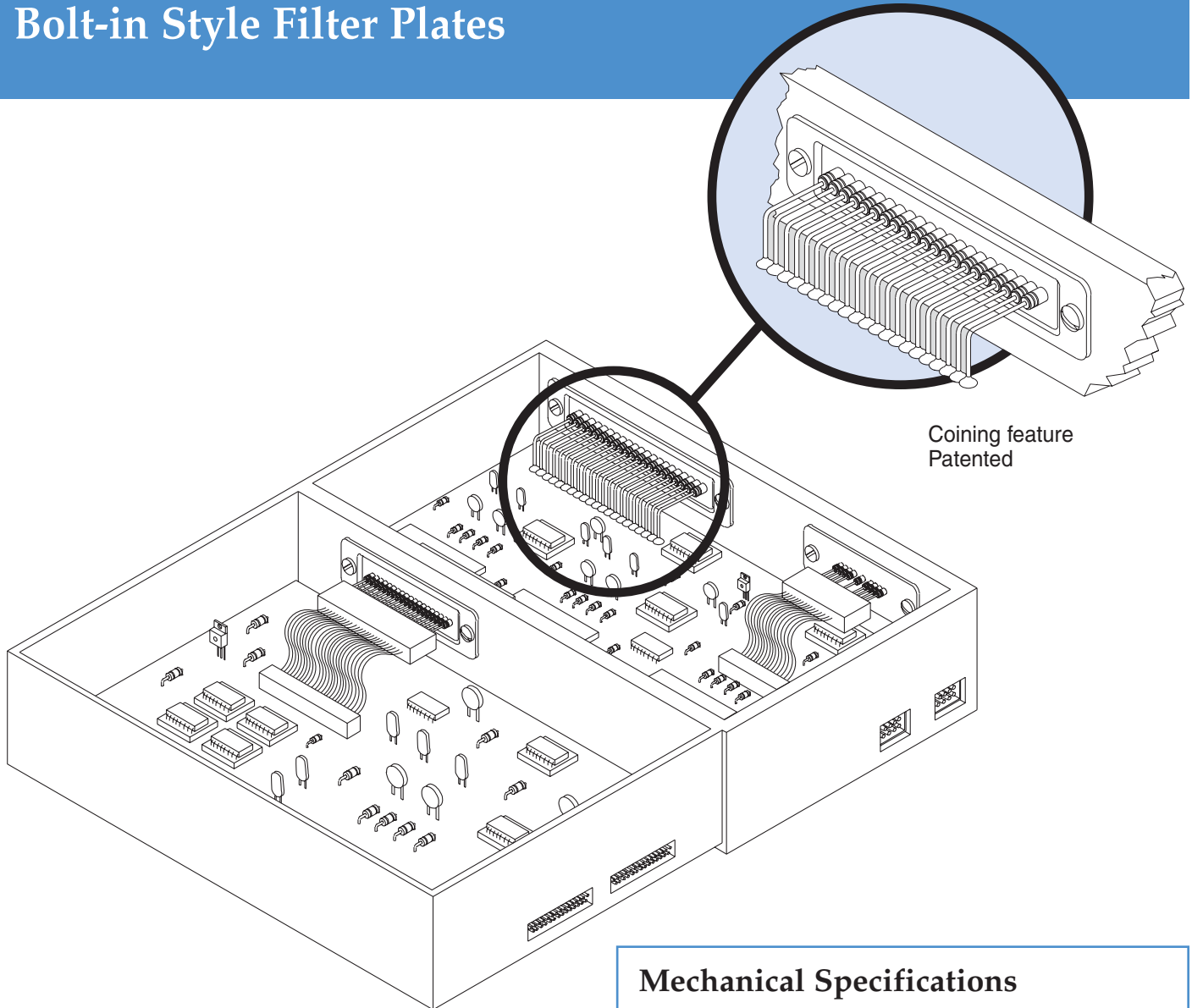


* Maximum capacitance up to 4000pF C style filter

**Replace "-" with "F" for RoHS complaint version

*** To request selective line filtering, a mechanical configuration or material specification not shown in this catalog, please complete and forward the design inquiry form on page 121. We will review your request and provide you with a part number.

Bolt-in Style Filter Plates



Coining feature
Patented

Mechanical Specifications

Base Plate

Material..... Brass UNS C26000/C27000

Base Plate

Thickness..... .020 inches (.51mm)

Plating..... Tin,
RoHS version will be silver

Lead Material..... Copper alloy

Lead Plating..... Gold plate

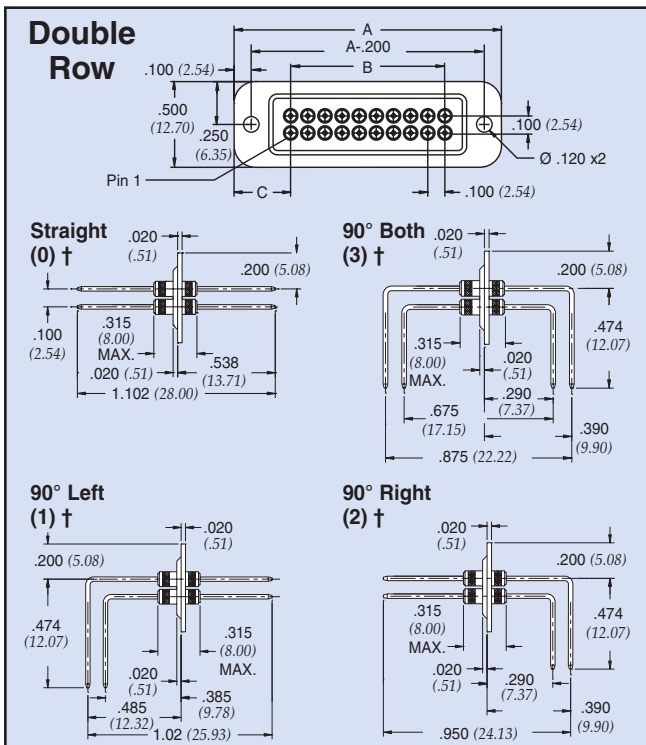
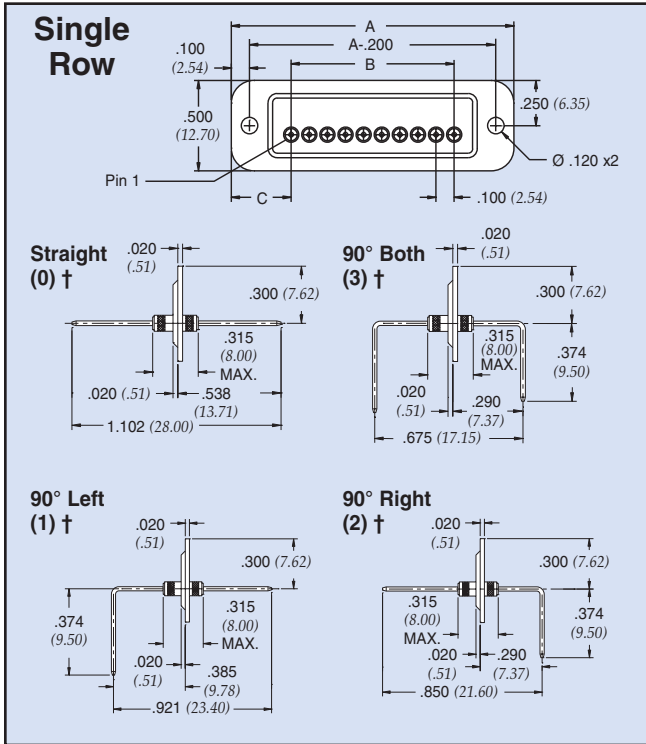
Lead Diameter..... \varnothing .025" (.64mm)
for 0.100" centers (2.54mm)
 \varnothing .020 (.51mm)
for 0.079" centers (2.00mm)

Current Rating..... 5 Amps for .025" (.64mm) \varnothing
3 Amps for .020" (.51mm) \varnothing

Bolt-in Style Filter Plates

Standard Density Centers .100"

Dimensions: inches and (mm)
Lead Spacing: .100" (2.54 mm)



Coining feature patented
 † Refers to lead configuration for part number/ordering information

Plate length (A)	No. of filtered lines per row	52-970-XXX-XXX	
		B	C
1.060 * (26.92)	1	0 (0.00)	0.53 (13.46)
	2	0.1 (2.54)	0.43 (10.92)
	3	0.2 (5.08)	0.43 (10.92)
	4	0.3 (7.62)	0.33 (8.38)
	5	0.4 (10.16)	0.33 (8.38)
1.560 * (39.62)	1	0.0 (0.00)	0.73 (18.54)
	2	0.1 (2.54)	0.73 (18.54)
	3	0.2 (5.08)	0.63 (16.00)
	4	0.3 (7.62)	0.63 (16.00)
	5	0.4 (10.16)	0.53 (13.46)
	6	0.5 (12.70)	0.53 (13.46)
	7	0.6 (15.24)	0.43 (10.92)
	8	0.7 (17.78)	0.43 (10.92)
	9	0.8 (20.32)	0.33 (8.38)
	10	0.9 (22.86)	0.33 (8.38)
2.560 (65.02)	5	0.4 (10.16)	1.03 (26.16)
	6	0.5 (12.70)	1.03 (26.16)
	7	0.6 (15.24)	0.93 (23.62)
	8	0.7 (17.78)	0.93 (23.62)
	9	0.8 (20.32)	0.83 (21.08)
	10	0.9 (22.86)	0.83 (21.08)
	11	1.0 (25.40)	0.73 (18.54)
	12	1.1 (27.94)	0.73 (18.54)
	13	1.2 (30.48)	0.63 (16.00)
	14	1.3 (33.02)	0.63 (16.00)
	15	1.4 (35.56)	0.53 (13.46)
	16	1.5 (38.10)	0.53 (13.46)
	17	1.6 (40.64)	0.43 (10.92)
	18	1.7 (43.18)	0.43 (10.92)
	19	1.8 (45.72)	0.33 (8.38)
20	1.9 (48.26)	0.33 (8.38)	
3.560 (90.42)	13	1.2 (30.48)	1.13 (27.70)
	14	1.3 (33.02)	1.13 (27.70)
	15	1.4 (35.56)	1.03 (26.16)
	16	1.5 (38.10)	1.03 (26.16)
	17	1.6 (40.64)	0.93 (23.62)
	18	1.7 (43.18)	0.93 (23.62)
	19	1.8 (45.72)	0.83 (21.08)
	20	1.9 (48.26)	0.83 (21.08)
	21	2.0 (50.80)	0.73 (18.54)
	22	2.1 (53.34)	0.73 (18.54)
	23	2.2 (55.88)	0.63 (16.00)
	24	2.3 (58.42)	0.63 (16.00)
	25	2.4 (60.96)	0.53 (13.46)
	26	2.5 (63.50)	0.53 (13.46)
	27	2.6 (66.04)	0.43 (10.92)
28	2.7 (68.58)	0.43 (10.92)	
29	2.8 (71.12)	0.33 (8.38)	
30	2.9 (73.66)	0.33 (8.38)	

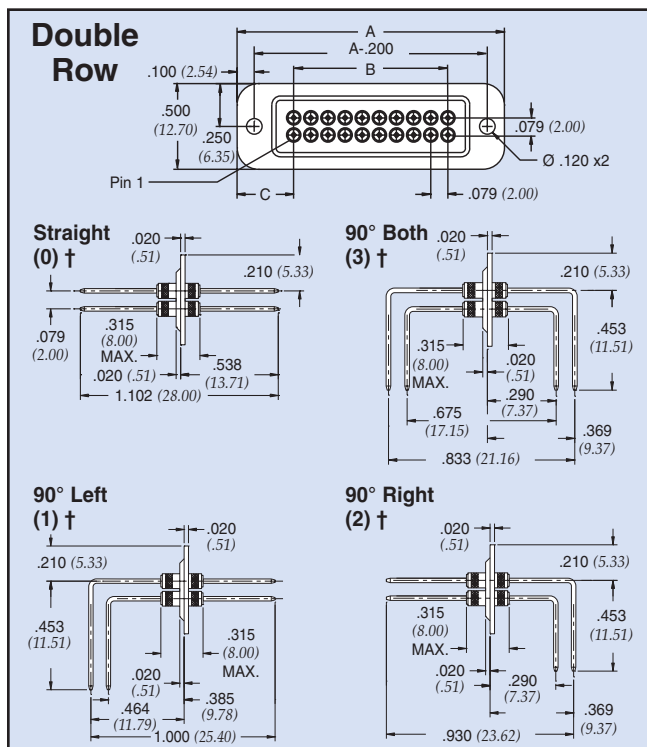
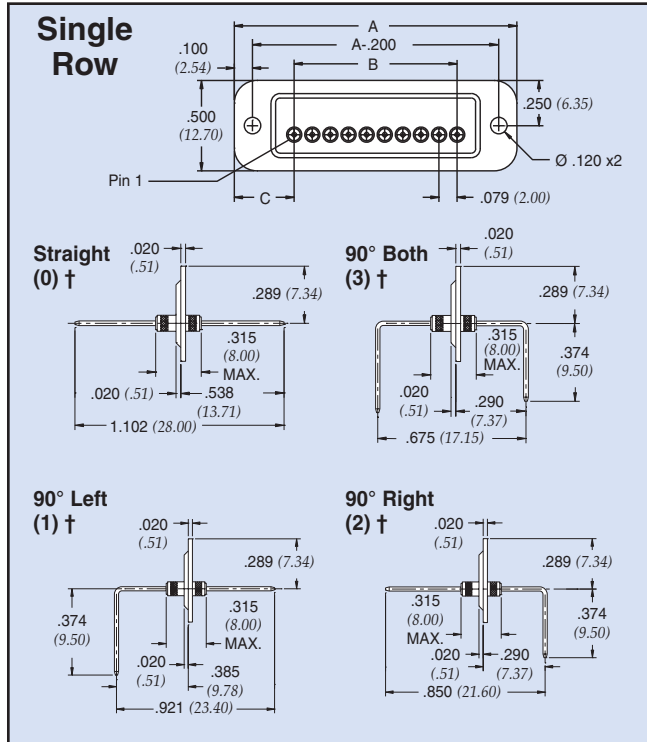
* For plate widths 1.060 and 1.560 there will be no coining.
 For these plates, increase dimensions to the right .020".
 Thus, any dimension on left will be reduced by .020.

Filtered Arrays

Bolt-in Style Filter Plates

Hi-Density Centers 2mm

Dimensions: inches and (mm)
Lead Spacing: .079" (2.00 mm)



Coining feature patented
 † Refers to lead configuration for part number/ordering information

Plate length (A)	No. of filtered lines per row	52-971-XXX-XXX	
		B	C
1.060 * (26.92)	2	0.079 (2.00)	0.487 (12.38)
	3	0.157 (4.00)	0.409 (10.38)
	4	0.236 (6.00)	0.409 (10.38)
	5	0.315 (8.00)	0.330 (8.38)
	6	0.394 (10.00)	0.330 (8.38)
1.560 * (39.62)	3	0.157 (4.00)	0.662 (16.81)
	4	0.236 (6.00)	0.662 (16.81)
	5	0.315 (8.00)	0.583 (14.81)
	6	0.394 (10.00)	0.583 (14.81)
	7	0.472 (12.00)	0.504 (12.81)
	8	0.551 (14.00)	0.504 (12.81)
	9	0.630 (16.00)	0.426 (10.81)
2.560 (65.02)	10	0.709 (18.00)	0.886 (22.51)
	11	0.787 (20.00)	0.886 (22.51)
	12	0.866 (22.00)	0.807 (20.51)
	13	0.945 (24.00)	0.807 (20.51)
	14	1.024 (26.00)	0.729 (18.51)
	15	1.102 (28.00)	0.729 (18.51)
	16	1.181 (30.00)	0.650 (16.51)
	17	1.260 (32.00)	0.650 (16.51)
	18	1.339 (34.00)	0.571 (14.51)
	19	1.417 (36.00)	0.571 (14.51)
	20	1.496 (38.00)	0.492 (12.51)
	21	1.575 (40.00)	0.492 (12.51)
3.560 (90.42)	22	1.654 (42.00)	0.414 (10.51)
	23	1.732 (44.00)	0.414 (10.51)
	24	1.811 (46.00)	0.335 (8.51)
	25	1.890 (48.00)	0.335 (8.51)
	20	1.496 (38.00)	0.993 (25.22)
	21	1.575 (40.00)	0.993 (25.22)
	22	1.654 (42.00)	0.914 (23.22)
	23	1.732 (44.00)	0.914 (23.22)
	24	1.811 (46.00)	0.835 (21.22)
	25	1.890 (48.00)	0.835 (21.22)
	26	1.969 (50.00)	0.757 (19.22)
	27	2.047 (52.00)	0.757 (19.22)
	28	2.126 (54.00)	0.678 (17.22)
	29	2.205 (56.00)	0.678 (17.22)
	30	2.283 (58.00)	0.599 (15.22)
	31	2.362 (60.00)	0.599 (15.22)
	32	2.441 (62.00)	0.520 (13.22)
33	2.520 (64.00)	0.520 (13.22)	
34	2.598 (66.00)	0.442 (11.22)	
35	2.677 (68.00)	0.442 (11.22)	
36	2.756 (70.00)	0.363 (9.22)	
37	2.835 (72.00)	0.363 (9.22)	

* For plate widths 1.060 and 1.560 there will be no coining.
 For these plates, increase dimensions to the right .020".
 Thus, any dimension on left will be reduced by .020.