

**.085 in. (2.16mm)  
Density  
Miniature Ribbon**

Filtered  
Vertical-Mount Solder Tail  
and Male/Female Adapter

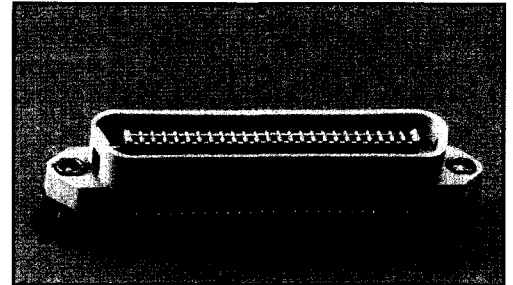


FEATURES

- *Low-pass (single-pole, capacitive) filtered contacts reduce inbound and outbound conducted EMI standard capacitance values of 50pF through 1,200pF.*
- *Saves space by incorporating required filter functions directly into footprint of I/O connector.*
- *Available as straight Solder Tail plug for solder termination to printed circuit board (nominal thickness through .093") and as plug/socket adapter, in 50-position size.*
- *All-plastic design reduces cost.*
- *All plugs lock with InstaLatch passive latch feature for automatic latching.*
- *Adapters available with InstaLatches, with Bail Latches, or with no latches on socket side.*
- *Available with through holes, #4-40 holes, #6-32 holes, or M3 holes for mounting/latching.*

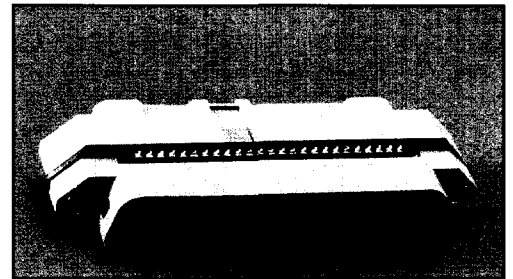
MATERIALS

**Insulator:** Gray UL94V-0 rated glass-filled polyester  
**Contact:** Copper alloy  
**Contact Plating:** 30µin. select gold over 50µin. select nickel standard; tin-lead on solder tails  
**Mounting Hardware Plating:** Tin-lead



ENVIRONMENTAL

**Operating Temperature:** -50°C to +105°C  
**Shock:** 50G Peak, per EIA Std. RS364, TP27, Condition A  
**Vibration:** 3 cycles @ 10-55Hz in each of 3 axes per EIA Std. 364, TP28, Condition A  
**Moisture Resistance:** Per EIA Std. RS364, TP31, Condition B, with Step 7B excluded



ELECTRICAL

**Voltage Rating:** 500VDC @ sea level  
**Contact Rating:** 3 Amps  
**RF Current Rating:** 0.3 Amps  
**Leakage Current:** 10mA maximum per contact when subjected to 1000 VAC test voltage, applied over 30 seconds and held for 60 seconds per FCC Part 68.5  
**Voltage Surge:** Withstands 1,500V peak longitudinal voltage surge with 10µsec. risetime, 160µsec. decay  
**Contact Resistance:** 6 milliohms maximum, per EIA Std. RS364, TP6  
**Insulation Resistance:** 5000 Megohms minimum  
**Dissipation Factor:** 5% maximum @ 25°C, 1kHz and 1 VAC RMS maximum

**Insertion Loss:**

Capacitance @ 25°C, 1kHz, 1 VAC RMS max.	Insertion Loss, min. (dB, @ 25°C, @ 50 ohm, no load, per MIL-STD-220)						
	10MHz	30MHz	50MHz	70MHz	100MHz	500MHz	1GHz
50pF±15%	-	-	-	-	2	14	11
100pF±15%	-	-	-	-	3	14	11
220pF±15%	-	-	4	7	12	14	11
470pF±15%	-	5	11	14	20	14	11
820pF±15%	3	3	16	20	20	14	11
1,000pF±15%	3	3	16	20	20	14	11
1,200pF±15%	3	3	16	20	20	14	11

MECHANICAL

**Durability:** 200 mating/unmating cycles  
**Mating / Unmating Forces:**

Size	Mating Force (max.) with InstaLatches		Unmating Force (min.) without InstaLatches	
	Lb.	Kg	Lb.	Kg
50	32	14.52	7	3.18

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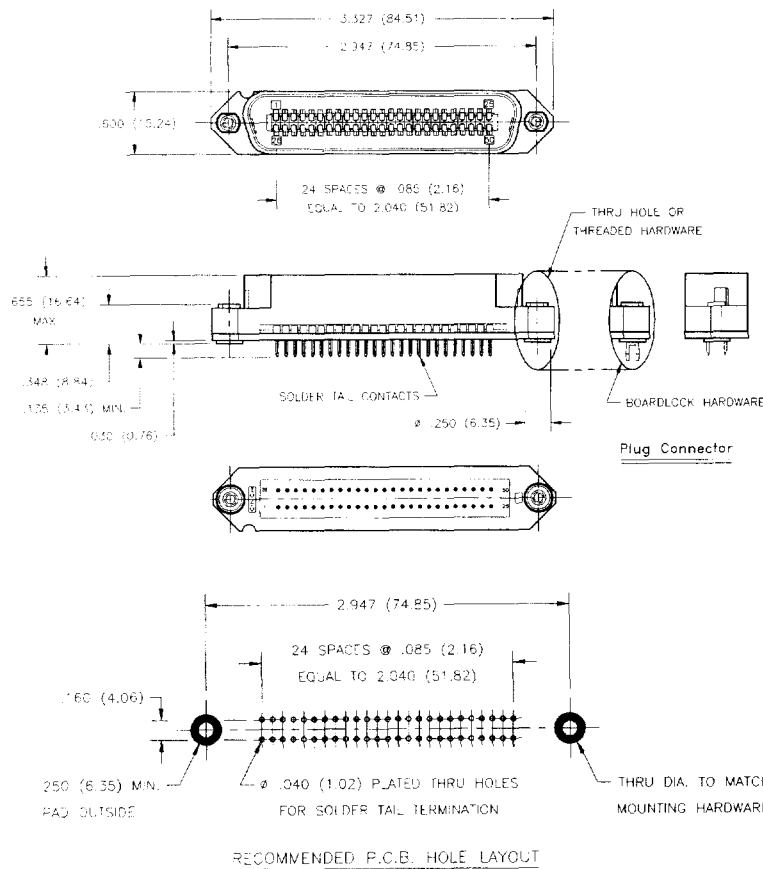
**Cinch**

**Filtered Vertical-Mount Solder Tail Plug**

Vertical-mount Filtered Miniature Ribbon plugs provide filtered I/O directly from printed circuit boards, where the mating face of the connector is in a plane parallel to that of the board. Filtering keeps conducted EMI from passing between the system board and I/O cable.

The connector's filter must be grounded to the system at the mounting holes, via either top flange or through the lower standoff to a pad on the component side of the printed circuit board.

See page 6-51 for accessories such as dust covers and mounting screws that make the use of Cinch Filtered Miniature Ribbon connectors even more cost-effective in board-mount applications.



**Ordering Information, Filtered Vertical-Mount Solder Tail Plug, 50 Position**

	Capacitance	.144 Hole	#4-40 Hole	#6-32 Hole	M3 -0.5 Hole
Through or threader hole	50pF±15%	CF97-50PB-TH	CF97-50PB-4T	CF97-50PB-6T	CF97-50PB-3T
	100pF±15%	CF97-50PC-TH	CF97-50PC-4T	CF97-50PC-6T	CF97-50PC-3T
	220pF±15%	CF97-50PD-TH	CF97-50PD-4T	CF97-50PD-6T	CF97-50PD-3T
	470pF±15%	CF97-50PE-TH	CF97-50PE-4T	CF97-50PE-6T	CF97-50PE-3T
	820pF±15%	CF97-50PF-TH	CF97-50PF-4T	CF97-50PF-6T	CF97-50PF-3T
	1,000pF±15%	CF97-50PH-TH	CF97-50PH-4T	CF97-50PH-6T	CF97-50PH-3T
Threaded Boardlock	1,200pF±15%	CF97-50PJ-TH	CF97-50PJ-4T	CF97-50PJ-6T	CF97-50PJ-3T
	50pF±15%	-	CF97-50PB-4B	CF97-50PB-6B	CF97-50PB-3B
	100pF±15%	-	CF97-50PC-4B	CF97-50PC-6B	CF97-50PC-3B
	220pF±15%	-	CF97-50PD-4B	CF97-50PD-6B	CF97-50PD-3B
	470pF±15%	-	CF97-50PE-4B	CF97-50PE-6B	CF97-50PE-3B
	820pF±15%	-	CF97-50PF-4B	CF97-50PF-6B	CF97-50PF-3B
1,000pF±15%	-	CF97-50PH-4B	CF97-50PH-6B	CF97-50PH-3B	
1,200pF±15%	-	CF97-50PJ-4B	CF97-50PJ-6B	CF97-50PJ-3B	

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**Filtered Panel Mount Feedthrough Adapter**

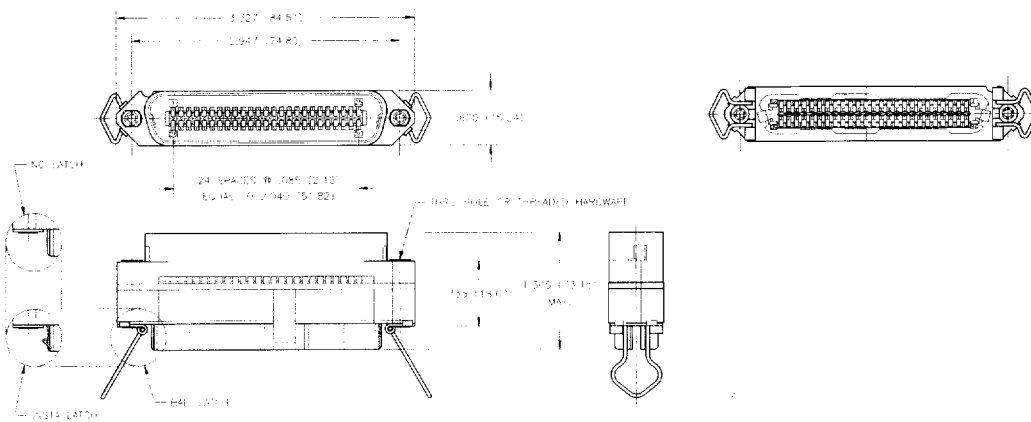
Filtered Ribbon Panel Mount Adapters provide filtered I/O in systems where internal cabling carries signals to the system panel.

By filtering right at the panel, EMI that could otherwise be generated over the length of the internal cable is prevented. The use of a plug/socket adapter also yields a benefit in serviceability. Should it ever be necessary to replace the filter, an adapter can be readily replaced without replacing a bulky, more expensive cable assembly.

The adapter must be grounded to the system panel through the mounting hardware, which extends to both plug and socket flanges; thus, the adapter may be mounted with either side to the panel.

Adapters are also available without filter capacitors. Often referred to as “connector savers”, these devices are most useful as “throw away” intermediate interconnects in applications where numerous mating/unmating cycles are required.

See page 6-51 for accessories such as bent bail latches, dust covers, and mounting screws that make the use of Cinch Miniature Ribbon Filtered Adapters even more cost-effective in panel mount-applications.



**Ordering Information, Filtered Adapter, 50 position**

	Capacitance	#4-40 Hole	#6-32 Hole	M3 -0.5 Hole
Socket without latches	None (Connector Saver)	CF97-50AA-4T	CF97-50AA-6T	CF97-50AA-3T
	50pF±15%	CF97-50AB-4T	CF97-50AB-6T	CF97-50AB-3T
	100pF±15%	CF97-50AC-4T	CF97-50AC-6T	CF97-50AC-3T
	220pF±15%	CF97-50AD-4T	CF97-50AD-6T	CF97-50AD-3T
	470pF±15%	CF97-50AE-4T	CF97-50AE-6T	CF97-50AE-3T
	820pF±15%	CF97-50AF-4T	CF97-50AF-6T	CF97-50AF-3T
	1,000pF±15%	CF97-50AH-4T	CF97-50AH-6T	CF97-50AH-3T
Socket with install latches	1,200pF±15%	CF97-50AJ-4T	CF97-50AJ-6T	CF97-50AJ-3T
	None (Connector Saver)	CF97-50AA-4TI	CF97-50AA-6TI	CF97-50AA-3TI
	50pF±15%	CF97-50AB-4TI	CF97-50AB-6TI	CF97-50AB-3TI
	100pF±15%	CF97-50AC-4TI	CF97-50AC-6TI	CF97-50AC-3TI
	220pF±15%	CF97-50AD-4TI	CF97-50AD-6TI	CF97-50AD-3TI
	470pF±15%	CF97-50AE-4TI	CF97-50AE-6TI	CF97-50AE-3TI
	820pF±15%	CF97-50AF-4TI	CF97-50AF-6TI	CF97-50AF-3TI
Socket with Bail latches	1,000pF±15%	CF97-50AH-4TI	CF97-50AH-6TI	CF97-50AH-3TI
	1,200pF±15%	CF97-50AJ-4TI	CF97-50AJ-6TI	CF97-50AJ-3TI
	None (Connector Saver)	CF97-50AA-4TB	CF97-50AA-6TB	CF97-50AA-3TB
	50pF±15%	CF97-50AB-4TB	CF97-50AB-6TB	CF97-50AB-3TB
	100pF±15%	CF97-50AC-4TB	CF97-50AC-6TB	CF97-50AC-3TB
	220pF±15%	CF97-50AD-4TB	CF97-50AD-6TB	CF97-50AD-3TB
	470pF±15%	CF97-50AE-4TB	CF97-50AE-6TB	CF97-50AE-3TB
820pF±15%	CF97-50AF-4TB	CF97-50AF-6TB	CF97-50AF-3TB	
1,000pF±15%	CF97-50AH-4TB	CF97-50AH-6TB	CF97-50AH-3TB	
1,200pF±15%	CF97-50AJ-4TB	CF97-50AJ-6TB	CF97-50AJ-3TB	

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