

Series 700 High Performance Filtered Connectors

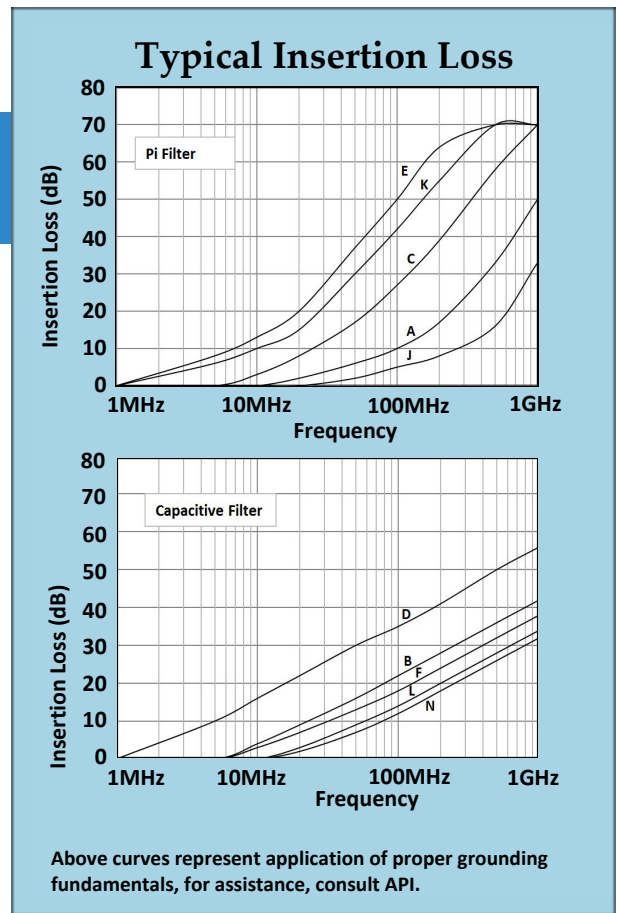
Filter Selection

API's Spectrum Control brand of Series 700 connectors offer the highest performance filtering for all types of professional applications.

Features

- Available in 9, 15, 25, 37 and 50 shell sizes
- Variety of termination configurations including right angle and straight PCB for both pin and socket contact and as an adapter
- Capacitive and Pi type filters in a full range of capacitance values

The catalog data for this series is presented in order of shell size, and grouped by pin and socket contacts. Part numbers must be selected from the tables within the series section.



Insertion loss measured per MIL-STD-220, no load, 50ohm source and load.

Electrical Specifications: High Performance Connectors

| Filter Designations | Filter Circuits | Capacitance | | 3 dB Cut-off Frequency Max. (MHz) | Dielectric With-standing Voltage | Working Voltage DC -55°C to +125°C | Minimum Insertion Loss - Decibels (dB) | | | | | | | | | |
|---------------------|-----------------|-------------|----------|-----------------------------------|----------------------------------|------------------------------------|--|--------|--------|--------|---------|---------|---------|-------|--|--|
| | | Value | Tol. | | | | 5 MHz | 10 MHz | 20 MHz | 50 MHz | 100 MHz | 200 MHz | 500 MHz | 1 GHz | | |
| J | Pi | 100 pF | +100 -0% | 32 | 300V | 100V | — | — | — | 2 | 5 | 8 | 16 | 33 | | |
| A | | 310 pF | ±20% | 17 | 300V | 100V | — | — | 2 | 6 | 10 | 17 | 33 | 50 | | |
| C | | 1000 pF | +150 -0% | 3.2 | 300V | 100V | — | 3 | 8 | 17 | 27 | 39 | 58 | 70 | | |
| K | | 2500 pF | +100 -0% | 1.3 | 150V | 50V | 6 | 10 | 15 | 30 | 42 | 55 | 70 | 70 | | |
| E | | 4000 pF | +100 -0% | 0.8 | 150V | 50V | 8 | 13 | 20 | 37 | 50 | 64 | 70 | 70 | | |
| N | C | 375 pF | ±20% | 14 | 600V | 200V | — | — | 2 | 7 | 12 | 18 | 26 | 32 | | |
| L | | 500 pF | ±20% | 10.6 | 600V | 200V | — | — | 3 | 9 | 14 | 20 | 28 | 34 | | |
| F | | 830 pF | ±20% | 6.4 | 600V | 200V | — | 3 | 7 | 13 | 18 | 24 | 32 | 38 | | |
| B | | 1000 pF | +100 -0% | 3.2 | 600V | 200V | — | 4 | 9 | 16 | 22 | 28 | 36 | 42 | | |
| D | | 5000 pF | +100 -0% | 0.64 | 300V | 100V | 10 | 16 | 22 | 30 | 35 | 41 | 50 | 56 | | |

Filter designation "G" for grounded contacts, "I" for insulated (not filtered) contacts.
Filter designation "O" for omitted contact and no hole in ground plane.

Above data represents guaranteed minimum.

Series 700 Specifications and Connector Ordering

Mechanical Specifications

- Shell* Zinc or aluminum diecast, nickel plated
 150 μ inches (3.81 μ m) min.
- Insulators* Glass-filled polyester,
 flammability UL94V-0
- Pin Contacts* Copper alloy, 15 μ inches
 (0.38 μ m) gold plated * over nickel
- Socket Contacts* Copper alloy, 30 μ inches
 (0.76 μ m) gold plated * over nickel
 * Heavier gold plating available upon request.
 See pg. FC43: Connector Options
- Terminations* Gold flash for PCB mount and solder
 cups. Solder dipped also available.
- Ground Plane* Brass, solder plated
- Grounding
 Springs* Beryllium copper, tin plated per
 MIL-T-10727
- Operating
 Temperature* -55°C to +125°C
- Capacitors* Proprietary barium titanate
 ceramic formulations

Electrical Specifications

- Current Rating* 5 Amps
 - R.F. Current
 Rating* 0.3 Amps
 - Contact
 Resistance* 10 milliohms maximum
 - UL Recognized* Under category of communication
 circuit accessories, File #E149046
 - Inductance on
 PI Filters* ~ 860 nH between 100 kHz and 1 MHz
- Solder cups accept up to a 20 gauge wire.

Ordering Your Connector

STEP 1: SELECTING THE FILTER

- Using the insert loss graphs on page FC20 determine which filters provide the required attenuation at the troublesome frequency, while not affecting the signal frequency by more than 3 to 6 dB.
- Choose the filter type, either feed-through capacitor or Pi. The Pi is generally considered better due to its superior high frequency performance and steeper curve. The feed-through capacitor is lower cost.
- Select capacitance value.
- Note the Spectrum letter designation for the filter chosen from the table on page FC20.

STEP 2: SELECTING THE CONNECTOR

- Turn to the appropriate size section. (9, 15, 25, 37, 50)
- Choose either pin contacts (plug) or socket contacts (receptacle).
- Choose the required termination type.
- From the table on the appropriate connector page, using the filter letter designation chosen in step 1 above, select the part number.

STEP 3: SPECIFYING OPTIONS

- Refer to page FC43 for special options including heavy gold plating, 4-40 mounting threads, grounding brackets, hardware, and others.
- Most options are available within the standard lead times.
- Some options require a part number suffix, while other combinations may require factory assistance for part number assignment. If a suffix is shown, add it to your selected part number. If more than one option is needed, consult with factory for part number assignment.

9 Series 700 Shell Size Pin Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-701-001 | A | 310 pF Pi |
| 56-701-002 | B | 1000 pF C |
| 56-701-003 | C | 1000 pF Pi |
| 56-701-004 | D | 5000 pF C |
| 56-701-005 | E | 4000 pF Pi |
| 56-701-028 | F | 830 pF C |
| 56-701-029 | J | 100 pF Pi |
| 56-701-030 | K | 2500 pF Pi |
| 56-701-047 | N | 375 pF C |
| 56-701-086 | L | 500 pF C |

Mating Face

Side View

Termination Face

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-702-001 | A | 310 pF Pi |
| 56-702-002 | B | 1000 pF C |
| * 56-702-003 | C | 1000 pF Pi |
| 56-702-004 | D | 5000 pF C |
| * 56-702-005 | E | 4000 pF Pi |
| 56-702-007 | F | 830 pF C |
| 56-702-008 | J | 100 pF Pi |
| 56-702-009 | K | 2500 pF Pi |
| 56-702-013 | N | 375 pF C |
| * 56-702-033 | L | 500 pF C |

Mating Face

Termination Face

Bottom View

Side View

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

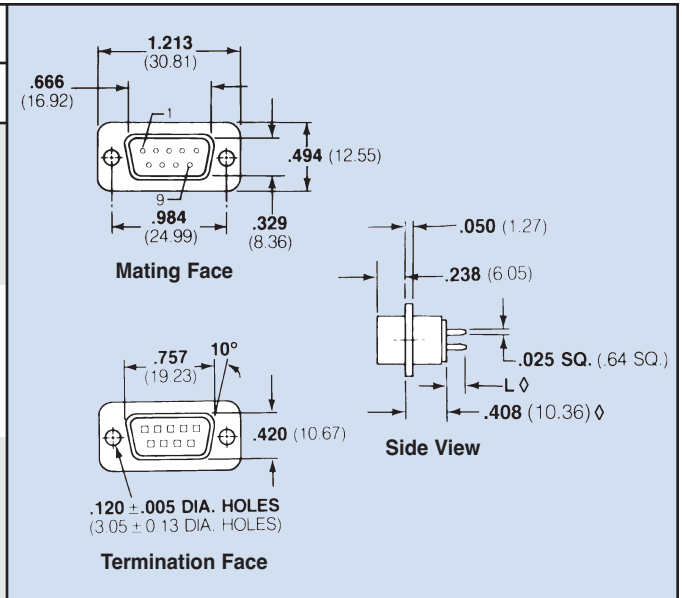
Standard Tolerance = ±.005 except where noted, ◊ = ±.015

9 Series 700 Shell Size Pin Contact



Solderless Wire Wrap

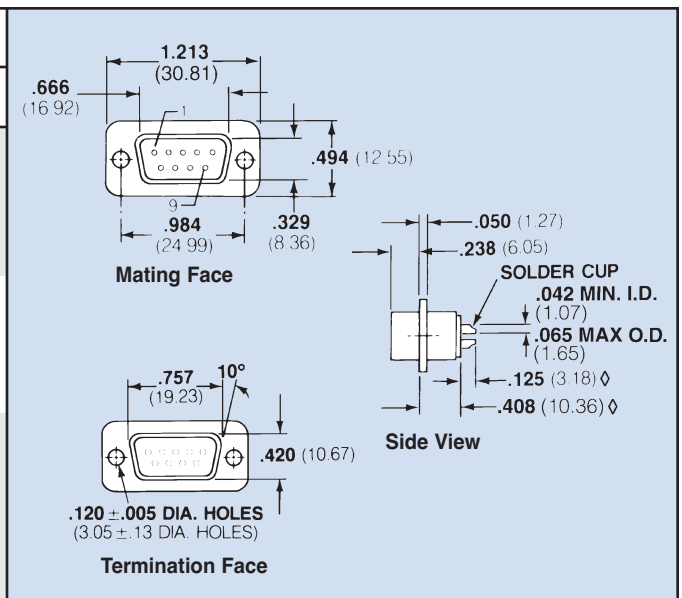
| Spectrum Part Number <i>Select one</i> | EMI Filter | | | Filter Desig.** | Cap. Value |
|---|------------|-----------|-----------|--------------------|------------|
| | L .500 | L .375 | L .250 | | |
| 56-701 -006 -022 -017 | | | | A | 310 pF Pi |
| 56-701 -007 -023 -018 | | | | B | 1000 pF C |
| 56-701 -008 -024 -019 | | | | C | 1000 pF Pi |
| 56-701 -009 -025 -020 | | | | D | 5000 pF C |
| 56-701 -010 -026 -021 | | | | E | 4000 pF Pi |
| 56-701 -037 -034 -031 | | | | F | 830 pF C |
| 56-701 -038 -035 -032 | | | | J | 100 pF Pi |
| 56-701 -039 -036 -033 | | | | K | 2500 pF Pi |
| 56-701 -050 -049 -048 | | | | N | 375 pF C |



*Replace "56-" with "56F" to indicate RoHS compliant

Solder Cup Termination

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-701-011 | A | 310 pF Pi |
| * 56-701-012 | B | 1000 pF C |
| * 56-701-013 | C | 1000 pF Pi |
| * 56-701-014 | D | 5000 pF C |
| * 56-701-015 | E | 4000 pF Pi |
| * 56-701-040 | F | 830 pF C |
| 56-701-041 | J | 100 pF Pi |
| 56-701-042 | K | 2500 pF Pi |
| 56-701-081 | N | 375 pF C |
| 56-701-087 | L | 500 pF C |

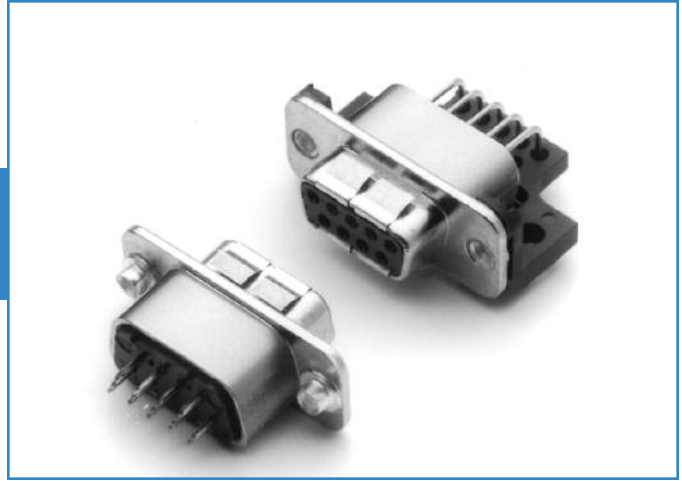


*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

9 Series 700 Shell Size Socket Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-703-001 | A | 310 pF Pi |
| 56-703-002 | B | 1000 pF C |
| 56-703-003 | C | 1000 pF Pi |
| 56-703-004 | D | 5000 pF C |
| 56-703-005 | E | 4000 pF Pi |
| 56-703-022 | F | 830 pF C |
| 56-703-023 | J | 100 pF Pi |
| 56-703-024 | K | 2500 pF Pi |
| 56-703-036 | N | 375 pF C |
| 56-703-047 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-704-001 | A | 310 pF Pi |
| 56-704-002 | B | 1000 pF C |
| * 56-704-003 | C | 1000 pF Pi |
| 56-704-004 | D | 5000 pF C |
| * 56-704-005 | E | 4000 pF Pi |
| 56-704-007 | F | 830 pF C |
| 56-704-008 | J | 100 pF Pi |
| 56-704-009 | K | 2500 pF Pi |
| 56-704-018 | N | 375 pF C |
| 56-704-035 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

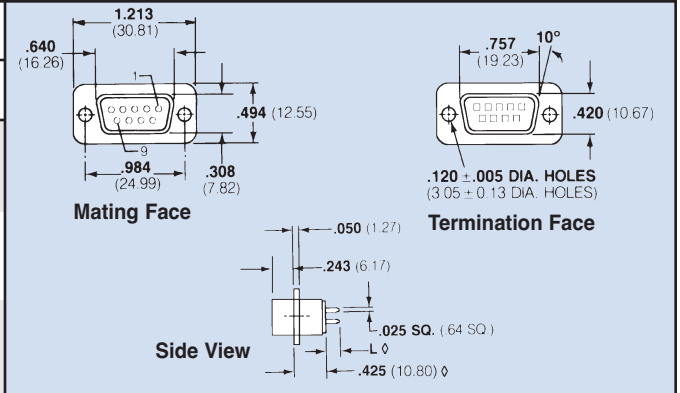
Standard Tolerance = ±.005 except where noted, ϕ = ±.015

9 Series 700 Shell Size Socket Contact & Pin/Socket Adapter



Solderless Wire Wrap

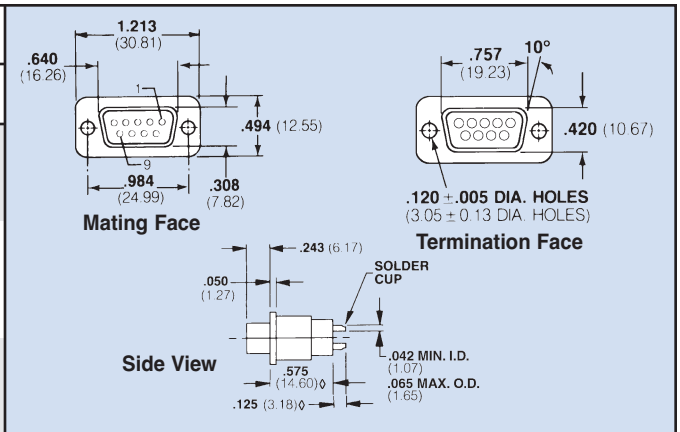
| Spectrum Part Number | Select one | | | EMI Filter | |
|----------------------|------------|-----------|-----------|-----------------|------------|
| | L .500 | L .375 | L .250 | Filter Desig.** | Cap. Value |
| 56-703 | -006 | -016 | -011 | A | 310 pF Pi |
| 56-703 | -007 | -017 | -012 | B | 1000 pF C |
| 56-703 | -008 | -018 | -013 | C | 1000 pF Pi |
| 56-703 | -009 | -019 | -014 | D | 5000 pF C |
| * 56-703 | -010 | -020 | * -015 | E | 4000 pF Pi |
| 56-703 | -031 | -028 | -025 | F | 830 pF C |
| 56-703 | -032 | -029 | -026 | J | 100 pF Pi |
| 56-703 | -033 | -030 | -027 | K | 2500 pF Pi |
| 56-703 | -039 | -038 | -037 | N | 375 pF C |



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Solder Cup Termination

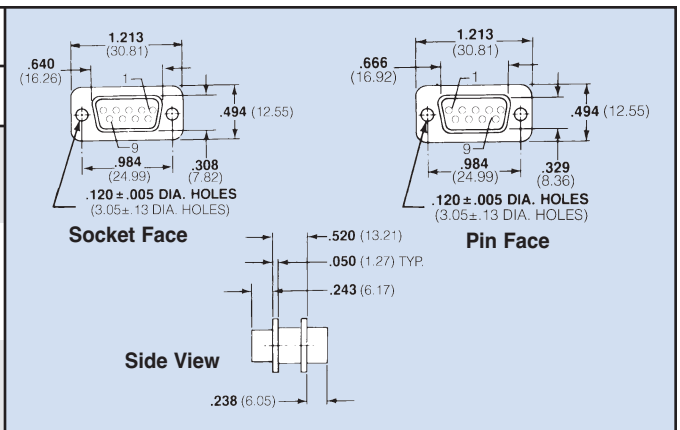
| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-706-001 | A | 310 pF Pi |
| 56-706-002 | B | 1000 pF C |
| * 56-706-003 | C | 1000 pF Pi |
| 56-706-004 | D | 5000 pF C |
| * 56-706-005 | E | 4000 pF Pi |
| 56-706-006 | F | 830 pF C |
| 56-706-007 | J | 100 pF Pi |
| * 56-706-008 | K | 2500 pF Pi |
| 56-706-009 | N | 375 pF C |
| 56-706-017 | L | 500 pF C |



*Replace "56-" with "56F" to indicate RoHS compliant

Pin/Socket Adapter

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-705-001 | A | 310 pF Pi |
| 56-705-002 | B | 1000 pF C |
| * 56-705-003 € | C | 1000 pF Pi |
| 56-705-004 | D | 5000 pF C |
| * 56-705-005 € | E | 4000 pF Pi |
| * 56-705-008 | F | 830 pF C |
| 56-705-009 | J | 100 pF Pi |
| 56-705-010 | K | 2500 pF Pi |
| 56-705-026 | N | 375 pF C |
| 56-705-049 | L | 500 pF C |



*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, φ = ±.015

15 Series 700 Shell Size Pin Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-711-001 | A | 310 pF Pi |
| 56-711-002 | B | 1000 pF C |
| 56-711-003 | C | 1000 pF Pi |
| 56-711-004 | D | 5000 pF C |
| 56-711-005 | E | 4000 pF Pi |
| 56-711-028 | F | 830 pF C |
| 56-711-029 | J | 100 pF Pi |
| 56-711-030 | K | 2500 pF Pi |
| 56-711-048 | N | 375 pF C |
| 56-711-088 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-712-001 | A | 310 pF Pi |
| 56-712-002 | B | 1000 pF C |
| * 56-712-003 | C | 1000 pF Pi |
| 56-712-004 | D | 5000 pF C |
| * 56-712-005 | E | 4000 pF Pi |
| * 56-712-007 | F | 830 pF C |
| 56-712-008 | J | 100 pF Pi |
| 56-712-009 | K | 2500 pF Pi |
| 56-712-017 | N | 375 pF C |
| 56-712-039 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

15 Series 700 Shell Size Pin Contact



Solderless Wire Wrap

| Spectrum Part Number <i>Select one</i> | EMI Filter | | | | |
|---|------------|-----------|-----------|--------------------|------------|
| | L .500 | L .375 | L .250 | Filter Desig.** | Cap. Value |
| 56-711 -006 -023 -018 | | | | A | 310 pF Pi |
| 56-711 -007 -024 -019 | | | | B | 1000 pF C |
| 56-711 -008 -025 -020 | | | | C | 1000 pF Pi |
| 56-711 -009 -026 -021 | | | | D | 5000 pF C |
| 56-711 -010 -027 -022 | | | | E | 4000 pF Pi |
| 56-711 -037 -034 -031 | | | | F | 830 pF C |
| 56-711 -038 -035 -032 | | | | J | 100 pF Pi |
| 56-711 -039 -036 -033 | | | | K | 2500 pF Pi |
| 56-711 -051 -050 -049 | | | | N | 375 pF C |

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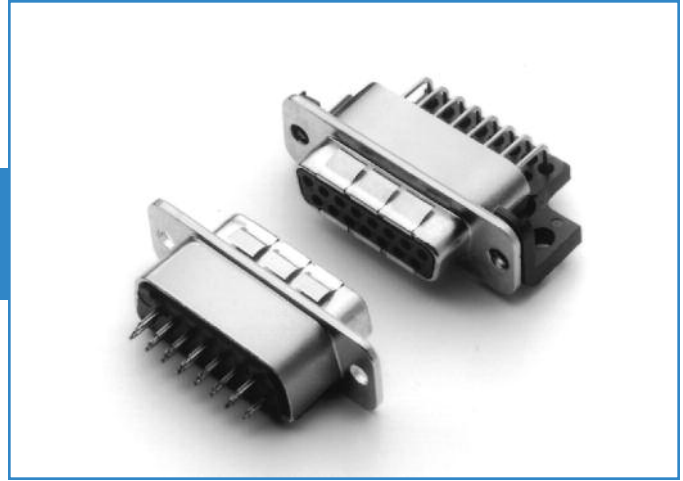
Solder Cup Termination

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-711-011 | A | 310 pF Pi |
| 56-711-012 | B | 1000 pF C |
| * 56-711-013 | C | 1000 pF Pi |
| 56-711-014 | D | 5000 pF C |
| * 56-711-015 | E | 4000 pF Pi |
| * 56-711-040 | F | 830 pF C |
| 56-711-041 | J | 100 pF Pi |
| 56-711-042 | K | 2500 pF Pi |
| 56-711-085 | N | 375 pF C |
| 56-711-086 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

15 Series 700 Shell Size Socket Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-713-001 | A | 310 pF Pi |
| 56-713-002 | B | 1000 pF C |
| 56-713-003 | C | 1000 pF Pi |
| 56-713-004 | D | 5000 pF C |
| 56-713-005 | E | 4000 pF Pi |
| 56-713-021 | F | 830 pF C |
| 56-713-022 | J | 100 pF Pi |
| 56-713-023 | K | 2500 pF Pi |
| 56-713-037 | N | 375 pF C |
| 56-713-045 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-714-001 | A | 310 pF Pi |
| 56-714-002 | B | 1000 pF C |
| * 56-714-003 | C | 1000 pF Pi |
| 56-714-004 | D | 5000 pF C |
| * 56-714-005 | E | 4000 pF Pi |
| * 56-714-006 | F | 830 pF C |
| 56-714-007 | J | 100 pF Pi |
| 56-714-008 | K | 2500 pF Pi |
| 56-714-017 | N | 375 pF C |
| 56-714-031 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

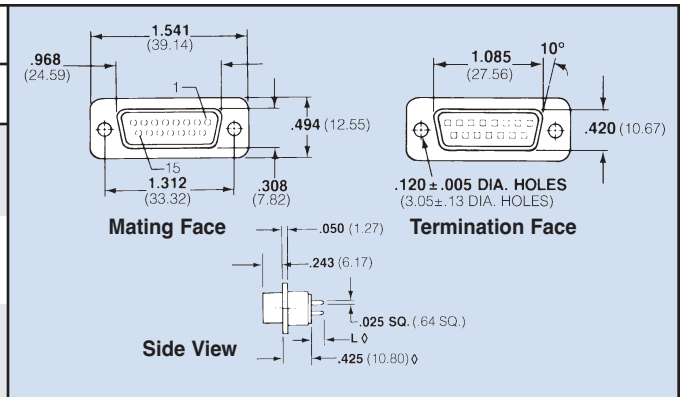
Standard Tolerance = ± 0.005 except where noted, $\diamond = \pm 0.015$

15 Series 700 Shell Size Socket Contact & Pin/Socket Adapter



Solderless Wire Wrap

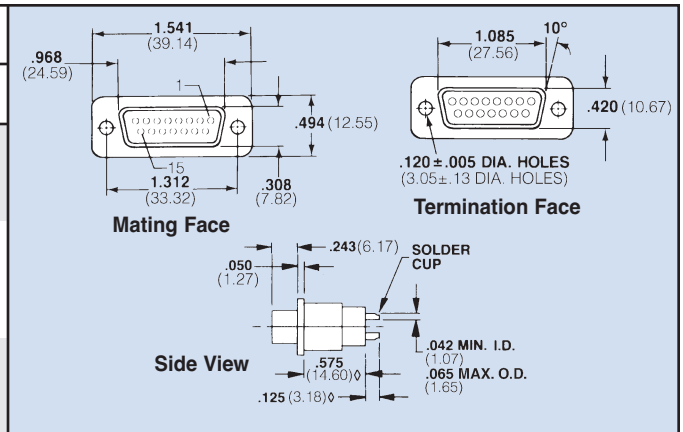
| Spectrum Part Number <i>Select one</i> | EMI Filter | | | |
|---|------------|-----------|-----------|-----------------|
| | L .500 | L .375 | L .250 | Filter Desig.** |
| 56-713 -006 | -016 | -011 | A | 310 pF Pi |
| 56-713 -007 | -017 | -012 | B | 1000 pF C |
| 56-713 -008 | -018 | -013 | C | 1000 pF Pi |
| 56-713 -009 | -019 | -014 | D | 5000 pF C |
| 56-713 -010 | -020 | -015 | E | 4000 pF Pi |
| 56-713 -030 | -027 | -024 | F | 830 pF C |
| 56-713 -031 | -028 | -025 | J | 100 pF Pi |
| 56-713 -032 | -029 | -026 | K | 2500 pF Pi |
| 56-713 -040 | -039 | -038 | N | 375 pF C |



*Replace "56-" with "56F" to indicate RoHS compliant

Solder Cup Termination

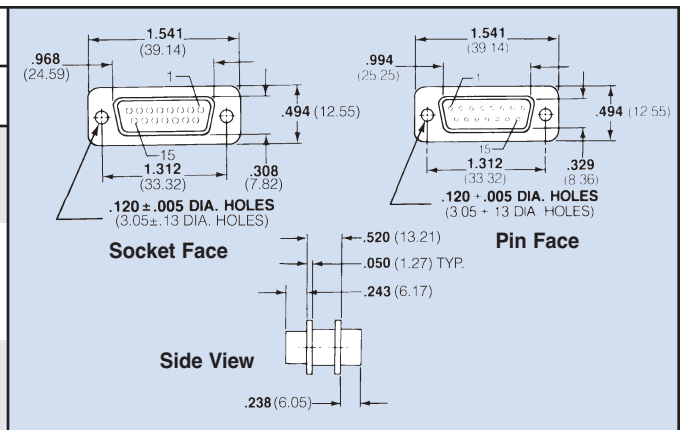
| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-716-001 | A | 310 pF Pi |
| 56-716-002 | B | 1000 pF C |
| * 56-716-003 | C | 1000 pF Pi |
| 56-716-004 | D | 5000 pF C |
| * 56-716-005 | E | 4000 pF Pi |
| 56-716-006 | F | 830 pF C |
| 56-716-007 | J | 100 pF Pi |
| * 56-716-008 | K | 2500 pF Pi |
| 56-716-009 | N | 375 pF C |
| 56-716-013 | L | 500 pF C |



*Replace "56-" with "56F" to indicate RoHS compliant

Pin/Socket Adapter

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-715-001 | A | 310 pF Pi |
| 56-715-002 | B | 1000 pF C |
| * 56-715-003 € | C | 1000 pF Pi |
| 56-715-004 | D | 5000 pF C |
| * 56-715-005 € | E | 4000 pF Pi |
| 56-715-007 | F | 830 pF C |
| 56-715-008 | J | 100 pF Pi |
| 56-715-009 | K | 2500 pF Pi |
| 56-715-015 | N | 375 pF C |
| 56-715-040 | L | 500 pF C |

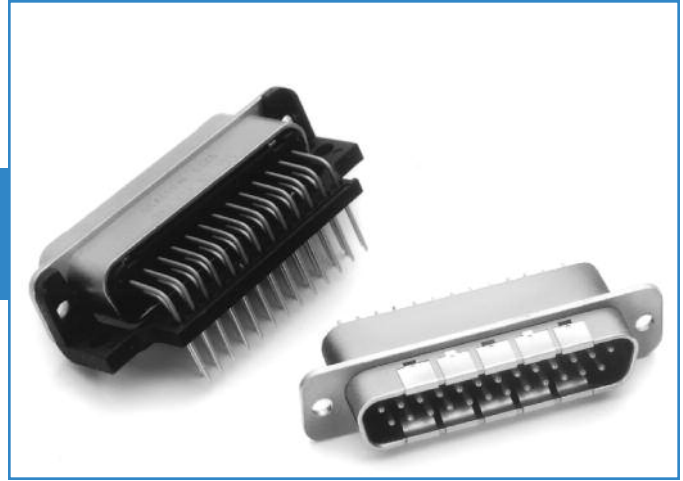


*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

25 Series 700 Shell Size Pin Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | | Mating Face | Side View |
|----------------------|----------------------|------------|--|---|
| | Filter Designation** | Cap. Value | | |
| 56-721-001 | A | 310 pF Pi | <p>2.088 (53.04) 1.534 (38.96) 1.852 (47.04) .494 (12.55) .329 (8.36)</p> | <p>.050 (1.27) .238 (6.05) .025 SQ. (.64 SQ.) .150 (3.81) ϕ .408 (10.36) ϕ</p> |
| 56-721-002 | B | 1000 pF C | | |
| 56-721-003 | C | 1000 pF Pi | <p>1.625 (41.28) 10° .420 (10.67) .120 ± .005 DIA. HOLES (3.05 ± .13 DIA. HOLES)</p> | <p>.020 ± .005 (.51 ± .13) .125 ± .005 DIA. HOLES (3.18 ± .13 DIA. HOLES) .740 (18.80) ϕ .540 (13.72) ϕ</p> |
| 56-721-004 | D | 5000 pF C | | |
| 56-721-005 | E | 4000 pF Pi | <p>2.088 (53.04) 1.534 (38.96) 1.852 (47.04) .494 (12.55) .329 (8.36)</p> | <p>.050 (1.27) .238 (6.05) .025 SQ. (.64 SQ.) .150 (3.81) ϕ .408 (10.36) ϕ</p> |
| 56-721-033 | F | 830 pF C | | |
| 56-721-034 | J | 100 pF Pi | <p>1.625 (41.28) 10° .420 (10.67) .120 ± .005 DIA. HOLES (3.05 ± .13 DIA. HOLES)</p> | <p>.020 ± .005 (.51 ± .13) .125 ± .005 DIA. HOLES (3.18 ± .13 DIA. HOLES) .740 (18.80) ϕ .540 (13.72) ϕ</p> |
| 56-721-035 | K | 2500 pF Pi | | |
| 56-721-063 | N | 375 pF C | <p>2.088 (53.04) 1.534 (38.96) 1.852 (47.04) .494 (12.55) .329 (8.36)</p> | <p>.050 (1.27) .238 (6.05) .025 SQ. (.64 SQ.) .150 (3.81) ϕ .408 (10.36) ϕ</p> |
| 56-721-111 | L | 500 pF C | | |

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | | Mating Face | Termination Face | Bottom View | Side View |
|----------------------|----------------------|------------|---|--|--|---|
| | Filter Designation** | Cap. Value | | | | |
| * 56-722-001 | A | 310 pF Pi | <p>2.088 (53.04) 1.534 (38.96) 1.852 (47.04) .494 (12.55) .329 (8.36)</p> | <p>1.625 (41.28) 10° .420 (10.67) .120 ± .005 DIA. HOLES (3.05 ± .13 DIA. HOLES)</p> | <p>.125 (3.18) ϕ 1.490 (37.85) .275 (6.99) .740 (18.80) ϕ .540 (13.72) ϕ</p> | <p>.105 (2.67) ϕ .590 (14.99) ϕ .025 SQ. (.64 SQ.) .702 (17.83) ϕ</p> |
| 56-722-002 | B | 1000 pF C | | | | |
| * 56-722-003 | C | 1000 pF Pi | <p>2.088 (53.04) 1.534 (38.96) 1.852 (47.04) .494 (12.55) .329 (8.36)</p> | <p>1.625 (41.28) 10° .420 (10.67) .120 ± .005 DIA. HOLES (3.05 ± .13 DIA. HOLES)</p> | <p>.125 (3.18) ϕ 1.490 (37.85) .275 (6.99) .740 (18.80) ϕ .540 (13.72) ϕ</p> | <p>.105 (2.67) ϕ .590 (14.99) ϕ .025 SQ. (.64 SQ.) .702 (17.83) ϕ</p> |
| 56-722-004 | D | 5000 pF C | | | | |
| * 56-722-005 | E | 4000 pF Pi | <p>2.088 (53.04) 1.534 (38.96) 1.852 (47.04) .494 (12.55) .329 (8.36)</p> | <p>1.625 (41.28) 10° .420 (10.67) .120 ± .005 DIA. HOLES (3.05 ± .13 DIA. HOLES)</p> | <p>.125 (3.18) ϕ 1.490 (37.85) .275 (6.99) .740 (18.80) ϕ .540 (13.72) ϕ</p> | <p>.105 (2.67) ϕ .590 (14.99) ϕ .025 SQ. (.64 SQ.) .702 (17.83) ϕ</p> |
| * 56-722-008 | F | 830 pF C | | | | |
| 56-722-009 | J | 100 pF Pi | <p>2.088 (53.04) 1.534 (38.96) 1.852 (47.04) .494 (12.55) .329 (8.36)</p> | <p>1.625 (41.28) 10° .420 (10.67) .120 ± .005 DIA. HOLES (3.05 ± .13 DIA. HOLES)</p> | <p>.125 (3.18) ϕ 1.490 (37.85) .275 (6.99) .740 (18.80) ϕ .540 (13.72) ϕ</p> | <p>.105 (2.67) ϕ .590 (14.99) ϕ .025 SQ. (.64 SQ.) .702 (17.83) ϕ</p> |
| 56-722-010 | K | 2500 pF Pi | | | | |
| 56-722-027 | N | 375 pF C | <p>2.088 (53.04) 1.534 (38.96) 1.852 (47.04) .494 (12.55) .329 (8.36)</p> | <p>1.625 (41.28) 10° .420 (10.67) .120 ± .005 DIA. HOLES (3.05 ± .13 DIA. HOLES)</p> | <p>.125 (3.18) ϕ 1.490 (37.85) .275 (6.99) .740 (18.80) ϕ .540 (13.72) ϕ</p> | <p>.105 (2.67) ϕ .590 (14.99) ϕ .025 SQ. (.64 SQ.) .702 (17.83) ϕ</p> |
| 56-722-060 | L | 500 pF C | | | | |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ± 0.005 except where noted, $\phi = \pm 0.015$

25 Series 700 Shell Size Pin Contact



Solderless Wire Wrap

| Spectrum Part Number <i>Select one</i> | EMI Filter | | | | |
|---|------------|--------|--------|-----------------|------------|
| | L .500 | L .375 | L .250 | Filter Desig.** | Cap. Value |
| 56-721 -006 -028 -024 | | | | A | 310 pF Pi |
| 56-721 -007 -029 -025 | | | | B | 1000 pF C |
| 56-721 -008 -030 -026 | | | | C | 1000 pF Pi |
| 56-721 -009 -031 -022 | | | | D | 5000 pF C |
| 56-721 -010 -032 -027 | | | | E | 4000 pF Pi |
| 56-721 -042 -039 -036 | | | | F | 830 pF C |
| 56-721 -043 -040 -037 | | | | J | 100 pF Pi |
| 56-721 -044 -041 -038 | | | | K | 2500 pF Pi |
| 56-721 -066 -065 -064 | | | | N | 375 pF C |

Mating Face

Termination Face

Side View

*Replace "56-" with "56F" to indicate RoHS compliant

Solder Cup Termination

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-721-011 | A | 310 pF Pi |
| * 56-721-012 | B | 1000 pF C |
| * 56-721-013 | C | 1000 pF Pi |
| 56-721-014 | D | 5000 pF C |
| * 56-721-015 | E | 4000 pF Pi |
| * 56-721-045 | F | 830 pF C |
| 56-721-046 | J | 100 pF Pi |
| 56-721-047 | K | 2500 pF Pi |
| 56-721-070 | N | 375 pF C |
| 56-721-112 | L | 500 pF C |

Mating Face

Termination Face

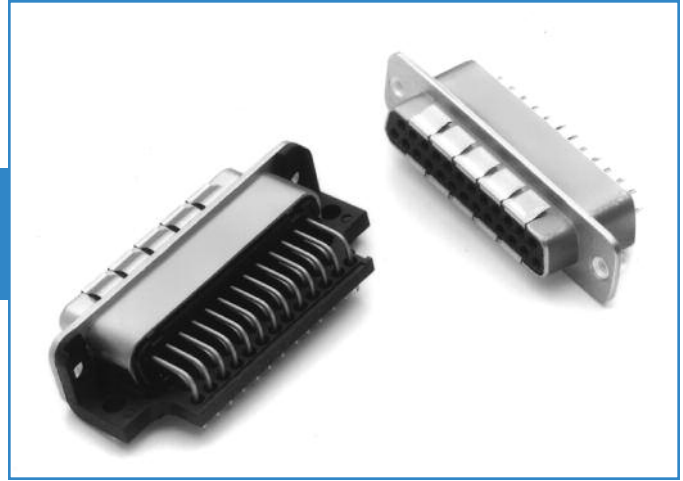
Side View

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

25 Series 700 Shell Size Socket Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-723-001 | A | 310 pF Pi |
| 56-723-002 | B | 1000 pF C |
| 56-723-003 | C | 1000 pF Pi |
| 56-723-004 | D | 5000 pF C |
| 56-723-005 | E | 4000 pF Pi |
| 56-723-023 | F | 830 pF C |
| 56-723-024 | J | 100 pF Pi |
| 56-723-025 | K | 2500 pF Pi |
| 56-723-045 | N | 375 pF C |
| 56-723-069 | L | 500 pF C |

Mating Face

Side View

Termination Face

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-724-001 | A | 310 pF Pi |
| 56-724-002 | B | 1000 pF C |
| * 56-724-003 | C | 1000 pF Pi |
| 56-724-004 | D | 5000 pF C |
| * 56-724-005 | E | 4000 pF Pi |
| * 56-724-008 | F | 830 pF C |
| 56-724-009 | J | 100 pF Pi |
| 56-724-010 | K | 2500 pF Pi |
| 56-724-021 | N | 375 pF C |
| 56-724-046 | L | 500 pF C |

Mating Face

Termination Face

Side View

Bottom View

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

25 Series 700 Shell Size Pin/Socket Adapter



Solderless Wire Wrap

| Spectrum Part Number <i>Select one</i> | EMI Filter | | | Filter Desig.** | Cap. Value |
|---|------------|-----------|-----------|-----------------|------------|
| | L .500 | L .375 | L .250 | | |
| * 56-723 -006 -017 * -012 | | | | A | 310 pF Pi |
| 56-723 -007 -018 -013 | | | | B | 1000 pF C |
| * 56-723 -008 -019 * -014 | | | | C | 1000 pF Pi |
| 56-723 -009 -020 -015 | | | | D | 5000 pF C |
| * 56-723 -010 -021 * -016 | | | | E | 4000 pF Pi |
| * 56-723 -032 -029 * -026 | | | | F | 830 pF C |
| 56-723 -033 -030 -027 | | | | J | 100 pF Pi |
| 56-723 -034 -031 -028 | | | | K | 2500 pF Pi |
| 56-723 -048 -047 -046 | | | | N | 375 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Solder Cup Termination

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-726-001 | A | 310 pF Pi |
| 56-726-002 | B | 1000 pF C |
| * 56-726-003 | C | 1000 pF Pi |
| 56-726-004 | D | 5000 pF C |
| * 56-726-005 | E | 4000 pF Pi |
| 56-726-006 | F | 830 pF C |
| 56-726-007 | J | 100 pF Pi |
| * 56-726-008 | K | 2500 pF Pi |
| 56-726-009 | N | 375 pF C |
| 56-726-021 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Pin/Socket Adapter

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-725-001 | A | 310 pF Pi |
| 56-725-002 | B | 1000 pF C |
| * 56-725-003 € | C | 1000 pF Pi |
| 56-725-004 | D | 5000 pF C |
| * 56-725-005 € | E | 4000 pF Pi |
| * 56-725-019 | F | 830 pF C |
| 56-725-020 | J | 100 pF Pi |
| * 56-725-021 | K | 2500 pF Pi |
| 56-725-064 | N | 375 pF C |
| 56-725-073 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±0.005 except where noted, ∅ = ±0.015

37 Series 700 Shell Size Pin Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-731-001 | A | 310 pF Pi |
| 56-731-002 | B | 1000 pF C |
| 56-731-003 | C | 1000 pF Pi |
| 56-731-004 | D | 5000 pF C |
| 56-731-005 | E | 4000 pF Pi |
| 56-731-028 | F | 830 pF C |
| 56-731-029 | J | 100 pF Pi |
| 56-731-030 | K | 2500 pF Pi |
| 56-731-048 | N | 375 pF C |
| 56-731-076 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-732-001 | A | 310 pF Pi |
| 56-732-002 | B | 1000 pF C |
| * 56-732-003 | C | 1000 pF Pi |
| 56-732-004 | D | 5000 pF C |
| * 56-732-005 | E | 4000 pF Pi |
| 56-732-006 | F | 830 pF C |
| 56-732-007 | J | 100 pF Pi |
| 56-732-008 | K | 2500 pF Pi |
| 56-732-009 | N | 375 pF C |
| 56-732-023 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

37 Series 700 Shell Size Pin Contact



Solderless Wire Wrap

| Spectrum Part Number <i>Select one</i> | EMI Filter | | | | |
|---|------------|--------|--------|-----------------|------------|
| | L .500 | L .375 | L .250 | Filter Desig.** | Cap. Value |
| 56-731 -006 -023 -018 | | | | A | 310 pF Pi |
| 56-731 -007 -024 -019 | | | | B | 1000 pF C |
| 56-731 -008 -025 -020 | | | | C | 1000 pF Pi |
| 56-731 -009 -026 -021 | | | | D | 5000 pF C |
| 56-731 -010 -027 -022 | | | | E | 4000 pF Pi |
| 56-731 -037 -034 -031 | | | | F | 830 pF C |
| 56-731 -038 -035 -032 | | | | J | 100 pF Pi |
| 56-731 -039 -036 -033 | | | | K | 2500 pF Pi |
| 56-731 -051 -050 -049 | | | | N | 375 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Solder Cup Termination

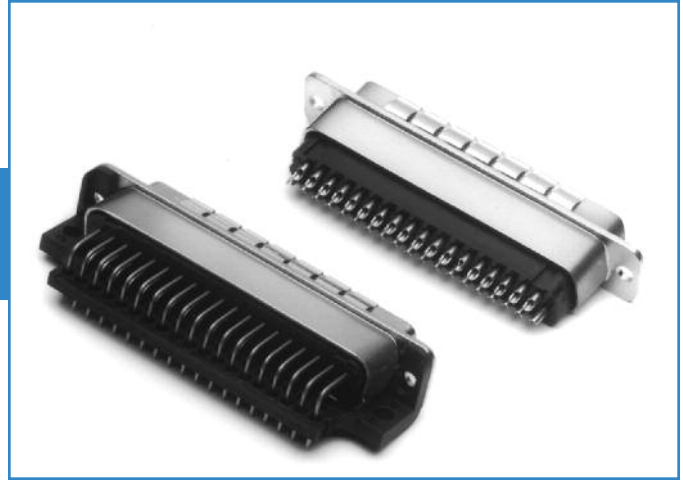
| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-731-011 | A | 310 pF Pi |
| 56-731-012 | B | 1000 pF C |
| * 56-731-013 | C | 1000 pF Pi |
| 56-731-014 | D | 5000 pF C |
| * 56-731-015 | E | 4000 pF Pi |
| * 56-731-040 | F | 830 pF C |
| 56-731-041 | J | 100 pF Pi |
| 56-731-042 | K | 2500 pF Pi |
| 56-731-060 | N | 375 pF C |
| 56-731-077 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

37 Series 700 Shell Size Socket Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-733-001 | A | 310 pF Pi |
| 56-733-002 | B | 1000 pF C |
| 56-733-003 | C | 1000 pF Pi |
| 56-733-004 | D | 5000 pF C |
| 56-733-005 | E | 4000 pF Pi |
| 56-733-021 | F | 830 pF C |
| 56-733-022 | J | 100 pF Pi |
| 56-733-023 | K | 2500 pF Pi |
| 56-733-035 | N | 375 pF C |
| 56-733-046 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-734-001 | A | 310 pF Pi |
| 56-734-002 | B | 1000 pF C |
| 56-734-003 | C | 1000 pF Pi |
| 56-734-004 | D | 5000 pF C |
| 56-734-005 | E | 4000 pF Pi |
| 56-734-006 | F | 830 pF C |
| 56-734-007 | J | 100 pF Pi |
| 56-734-008 | K | 2500 pF Pi |
| 56-734-012 | N | 375 pF C |
| 56-734-021 | L | 500 pF C |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ± 0.005 except where noted, $\diamond = \pm 0.015$

37 Series 700 Shell Size Socket Contact & Pin/Socket Adapter



Solderless Wire Wrap

| Spectrum Part Number <i>Select one</i> | EMI Filter | | | Filter Desig.** | Cap. Value |
|---|------------|-----------|-----------|--------------------|------------|
| | L .500 | L .375 | L .250 | | |
| * 56-733 -006 | -016 | * -011 | | A | 310 pF Pi |
| 56-733 -007 | -017 | -012 | | B | 1000 pF C |
| 56-733 -008 | -018 | -013 | | C | 1000 pF Pi |
| 56-733 -009 | -019 | -014 | | D | 5000 pF C |
| 56-733 -010 | -020 | -015 | | E | 4000 pF Pi |
| 56-733 -030 | -027 | -024 | | F | 830 pF C |
| 56-733 -031 | -028 | -025 | | J | 100 pF Pi |
| 56-733 -032 | -029 | -026 | | K | 2500 pF Pi |
| 56-733 -038 | -037 | -036 | | N | 375 pF C |

Mating Face

Termination Face

Side View

*Replace "56-" with "56F" to indicate RoHS compliant

Solder Cup Termination

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-736-001 | A | 310 pF Pi |
| 56-736-002 | B | 1000 pF C |
| * 56-736-003 | C | 1000 pF Pi |
| 56-736-004 | D | 5000 pF C |
| * 56-736-005 | E | 4000 pF Pi |
| 56-736-006 | F | 830 pF C |
| 56-736-007 | J | 100 pF Pi |
| * 56-736-008 | K | 2500 pF Pi |
| 56-736-009 | N | 375 pF C |
| 56-736-015 | L | 500 pF C |

Mating Face

Termination Face

Side View

*Replace "56-" with "56F" to indicate RoHS compliant

Pin/Socket Adapter

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-735-001 | A | 310 pF Pi |
| 56-735-002 | B | 1000 pF C |
| * 56-735-003 € | C | 1000 pF Pi |
| 56-735-004 | D | 5000 pF C |
| * 56-735-005 € | E | 4000 pF Pi |
| * 56-735-008 | F | 830 pF C |
| 56-735-009 | J | 100 pF Pi |
| 56-735-010 | K | 2500 pF Pi |
| 56-735-025 | N | 375 pF C |
| 56-735-034 | L | 500 pF C |

Socket Face

Pin Face

Side View

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

50 Series 700 Shell Size Pin Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-741-001 | A | 310 pF Pi |
| 56-741-002 | B | 1000 pF C |
| 56-741-003 | C | 1000 pF Pi |
| 56-741-004 | D | 5000 pF C |
| 56-741-005 | E | 4000 pF Pi |
| 56-741-027 | F | 830 pF C |
| 56-741-028 | J | 100 pF Pi |
| 56-741-029 | K | 2500 pF Pi |
| 56-741-042 | N | 375 pF C |
| 56-741-066 | L | 500 pF C |

Mating Face

Termination Face

Side View

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| 56-742-001 | A | 310 pF Pi |
| 56-742-002 | B | 1000 pF C |
| 56-742-003 | C | 1000 pF Pi |
| 56-742-004 | D | 5000 pF C |
| 56-742-005 | E | 4000 pF Pi |
| 56-742-006 | F | 830 pF C |
| 56-742-007 | J | 100 pF Pi |
| 56-742-008 | K | 2500 pF Pi |
| 56-742-009 | N | 375 pF C |
| 56-742-022 | L | 500 pF C |

Mating Face

Termination Face

Side View

Bottom View

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

50 Series 700 Shell Size Pin Contact



Solderless Wire Wrap

| Spectrum Part Number <i>Select one</i> | EMI Filter | | | | |
|---|------------|-----------|-----------|--------------------|------------|
| | L .500 | L .375 | L .250 | Filter Desig.** | Cap. Value |
| 56-741 -006 -022 -017 | | | | A | 310 pF Pi |
| 56-741 -007 -023 -018 | | | | B | 1000 pF C |
| 56-741 -008 -024 -019 | | | | C | 1000 pF Pi |
| 56-741 -009 -025 -020 | | | | D | 5000 pF C |
| 56-741 -010 -026 -021 | | | | E | 4000 pF Pi |
| 56-741 -036 -033 -030 | | | | F | 830 pF C |
| 56-741 -037 -034 -031 | | | | J | 100 pF Pi |
| 56-741 -038 -035 -032 | | | | K | 2500 pF Pi |
| 56-741 -045 -044 -043 | | | | N | 375 pF C |

Mating Face

Termination Face

Side View

*Replace "56-" with "56F" to indicate RoHS compliant

Solder Cup Termination

| Spectrum Part Number | EMI Filter | |
|----------------------|----------------------|------------|
| | Filter Designation** | Cap. Value |
| * 56-741-011 | A | 310 pF Pi |
| * 56-741-012 | B | 1000 pF C |
| * 56-741-013 | C | 1000 pF Pi |
| * 56-741-014 | D | 5000 pF C |
| * 56-741-015 | E | 4000 pF Pi |
| 56-741-039 | F | 830 pF C |
| 56-741-040 | J | 100 pF Pi |
| 56-741-041 | K | 2500 pF Pi |
| 56-741-063 | N | 375 pF C |
| 56-741-067 | L | 500 pF C |

Mating Face

Termination Face

Side View

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

50 Series 700 Shell Size Socket Contact



Printed Circuit Board Mount

| Spectrum Part Number | EMI Filter | | |
|----------------------|----------------------|------------|--|
| | Filter Designation** | Cap. Value | |
| 56-743-001 | A | 310 pF Pi | <p>Mating Face</p> <p>Termination Face</p> <p>Side View</p> |
| 56-743-002 | B | 1000 pF C | |
| 56-743-003 | C | 1000 pF Pi | |
| 56-743-004 | D | 5000 pF C | |
| 56-743-005 | E | 4000 pF Pi | |
| 56-743-021 | F | 830 pF C | |
| 56-743-022 | J | 100 pF Pi | |
| 56-743-023 | K | 2500 pF Pi | |
| 56-743-033 | N | 375 pF C | |
| 56-743-043 | L | 500 pF C | |

*Replace "56-" with "56F" to indicate RoHS compliant

Printed Circuit Board Right Angle Mount

| Spectrum Part Number | EMI Filter | | |
|----------------------|----------------------|------------|--|
| | Filter Designation** | Cap. Value | |
| 56-744-001 | A | 310 pF Pi | <p>Mating Face</p> <p>Termination Face</p> <p>Bottom View</p> <p>Side View</p> |
| 56-744-002 | B | 1000 pF C | |
| 56-744-003 | C | 1000 pF Pi | |
| 56-744-004 | D | 5000 pF C | |
| 56-744-005 | E | 4000 pF Pi | |
| 56-744-006 | F | 830 pF C | |
| 56-744-007 | J | 100 pF Pi | |
| 56-744-008 | K | 2500 pF Pi | |
| 56-744-009 | N | 375 pF C | |
| 56-744-012 | L | 500 pF C | |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015

50 Series 700 Shell Size Socket Contact & Pin/Socket Adapter



Solderless Wire Wrap

| Spectrum Part Number <i>Select one</i> | EMI Filter | | | Filter Desig.** | Cap. Value | | |
|---|------------|-----------|-----------|-----------------|------------|--|--|
| | L .500 | L .375 | L .250 | | | | |
| 56-743 -006 | -016 | -011 | A | 310 pF Pi | | | |
| 56-743 -007 | -017 | -012 | B | 1000 pF C | | | |
| 56-743 -008 | -018 | -013 | C | 1000 pF Pi | | | |
| 56-743 -009 | -019 | -014 | D | 5000 pF C | | | |
| 56-743 -010 | -020 | -015 | E | 4000 pF Pi | | | |
| 56-743 -030 | -027 | -024 | F | 830 pF C | | | |
| 56-743 -031 | -028 | -025 | J | 100 pF Pi | | | |
| 56-743 -032 | -029 | -026 | K | 2500 pF Pi | | | |
| 56-743 -036 | -035 | -034 | N | 375 pF C | | | |

*Replace "56-" with "56F" to indicate RoHS compliant

Solder Cup Termination

| Spectrum Part Number | EMI Filter | | | | |
|----------------------|----------------------|------------|--|--|--|
| | Filter Designation** | Cap. Value | | | |
| 56-746-001 | A | 310 pF Pi | | | |
| 56-746-002 | B | 1000 pF C | | | |
| 56-746-003 | C | 1000 pF Pi | | | |
| 56-746-004 | D | 5000 pF C | | | |
| 56-746-005 | E | 4000 pF Pi | | | |
| 56-746-006 | F | 830 pF C | | | |
| 56-746-007 | J | 100 pF Pi | | | |
| 56-746-008 | K | 2500 pF Pi | | | |
| 56-746-009 | N | 375 pF C | | | |
| 56-746-018 | L | 500 pF C | | | |

*Replace "56-" with "56F" to indicate RoHS compliant

Pin/Socket Adapter

| Spectrum Part Number | EMI Filter | | | | |
|----------------------|----------------------|------------|--|--|--|
| | Filter Designation** | Cap. Value | | | |
| * 56-745-001 | A | 310 pF Pi | | | |
| 56-745-002 | B | 1000 pF C | | | |
| * 56-745-003 | C | 1000 pF Pi | | | |
| 56-745-004 | D | 5000 pF C | | | |
| * 56-745-005 | E | 4000 pF Pi | | | |
| 56-745-006 | F | 830 pF C | | | |
| 56-745-007 | J | 100 pF Pi | | | |
| 56-745-008 | K | 2500 pF Pi | | | |
| 56-745-019 | N | 375 pF C | | | |
| 56-745-027 | L | 500 pF C | | | |

*Replace "56-" with "56F" to indicate RoHS compliant

Dimensions in inches (mm)

Standard Tolerance = ±.005 except where noted, ∅ = ±.015