

# Series 400 Ferrite Filtered Connectors

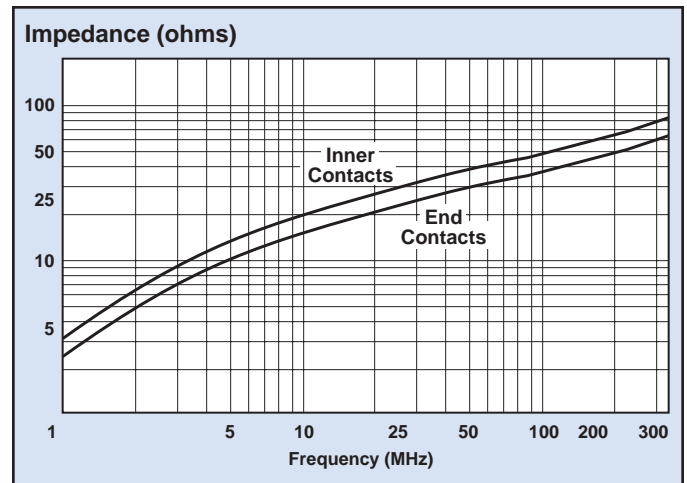
The Series 400 filtered D-subminiature connectors incorporate a solid slab of ferrite material as the filtering element. This rugged one piece design provides a compact connector that is a drop-in replacement for standard connectors. The ferrite material has been chosen for optimum filtering performance in the 10 to 300 MHz. range.

## Series 400 Applications

- Personal computers, microcomputer-applied products and peripheral/terminal equipment
- Eliminates common-mode noise along data lines in data communication terminals and digital equipment

## Features

- Superior filtering of high frequency interference
- Low cost, high performance ferrite filter
- Prevents common-mode noise in signal lines of data communication terminals and digital devices
- No distortion of wave forms
- Replaces individual ferrite bead filters, saving cost and space
- Provides both pin to ground and pin to pin filtering
- Effective in helping meet requirements of FCC, VDE, EN55022 and Japan's VCCI
- Short, space saving .318" footprint
- Interchangeable with standard D-subminiature connectors
- Can be installed directly over PCB trace pattern with no shorting
- 4-40 UNC locking insert eliminates loose hardware
- Metal shielding front shell
- Gold plated contacts
- Stacked ferrite connectors also available. Consult factory for more information.



## Mechanical Specifications

- Shell* . . . . . Steel (Tin Plated)
- Insulators* . . . . . PBT + 30% Glass Fiber (UL 94V-0)
- Pin Contacts* . . . . . Phosphor Bronze or Brass
- Contact Plated* . . . . . Gold Flash
- Operating Temperature* . . . . . -40°C to +105°C

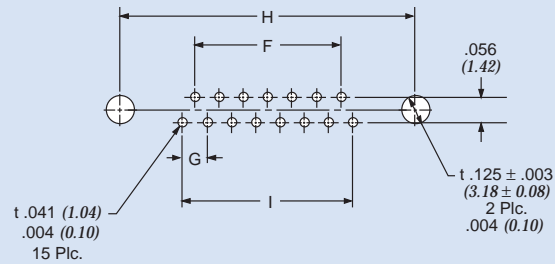
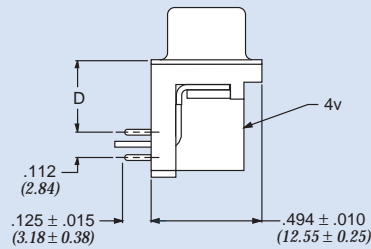
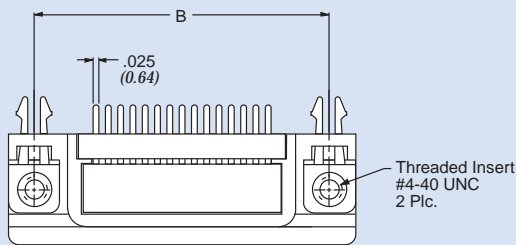
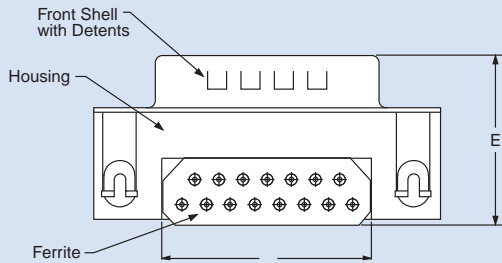
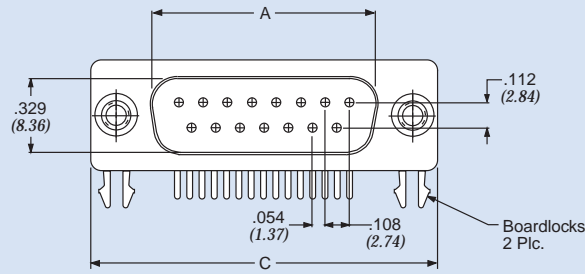
## Electrical Specifications

- Impedance* . . . . . @ 5 MHz - 15 ohms
- @ 25 MHz - 30 ohms
- @ 100 MHz - 50 ohms
- @ 300 MHz - 75 ohms
- Frequency Range* . . . . . 10 - 300 MHz
- Current Rating* . . . . . 5 Amps
- Dielectric Withstand Voltage* . . . . . 1000 VRMS for one minute
- Insulator Resistance* . . . . . 1000 megohms Min. @ 500VDC



# Series 400 Ferrite Filtered Connectors

## Pin Contact – Right Angle Mount



PC Board Mounting Dimensions

Series 400 Ferrite Filtered Connectors

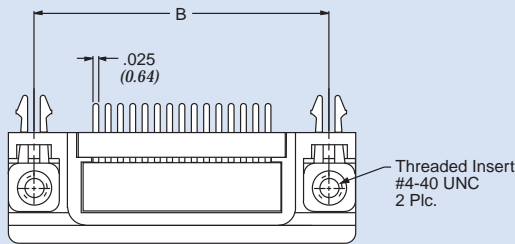
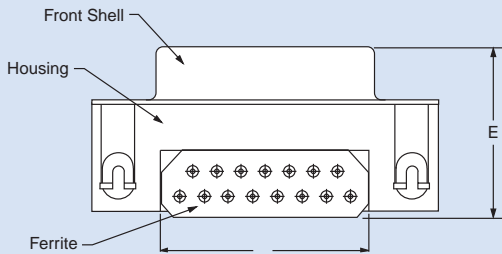
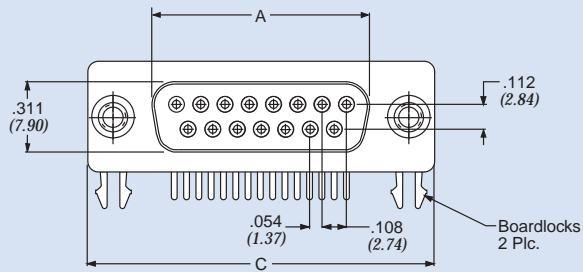
Part Number	Description	Typ. Impedance (Ohms)		Frequency Range	A +/-	B +/-	C +/-	D +/-	E +/-	F +/-	G +/-	H +/-	I +/-
		25 MHz	100 MHz		0.010 (0.25)	0.005 (0.13)	0.015 (0.38)	0.010 (0.25)	0.015 (0.38)	0.005 (0.13)	0.004 (0.10)	0.005 (0.13)	0.005 (0.13)
€ 56-402-001	D-Sub 9 pin	30	50	10 MHz to 300 MHz	0.666 (16.92)	0.984 (25.00)	1.213 (30.81)	0.318 (8.08)	0.751 (19.10)	0.327 (8.31)	0.109 (2.77)	0.984 (25.00)	0.436 (11.07)
€ 56-412-001	D-Sub 15 pin				0.994 (25.25)	1.312 (33.32)	1.541 (39.14)	0.318 (8.08)	0.751 (19.10)	0.654 (16.61)	0.109 (2.77)	1.312 (33.32)	0.763 (19.38)
€ 56-422-001	D-Sub 25 pin				1.534 (38.96)	1.852 (47.04)	2.088 (53.04)	0.318 (8.08)	0.751 (19.10)	1.199 (30.45)	0.109 (2.77)	1.852 (47.04)	1.308 (33.22)

€ Also available through Spectrum Control's authorized European distributors/agents.

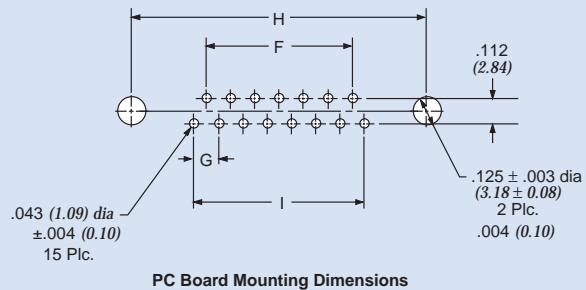
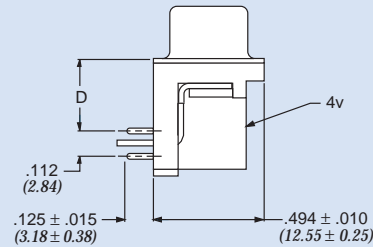
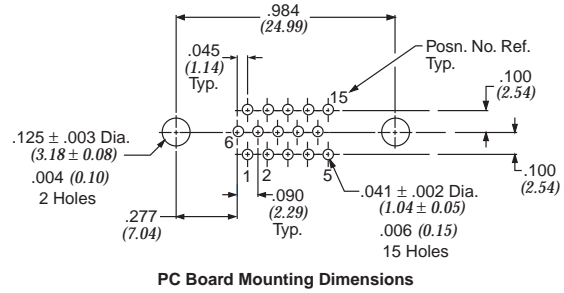
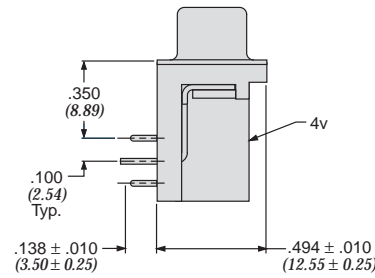
Dimensions in inches (mm)

# Series 400 Ferrite Filtered Connectors

## Socket Contact – Right Angle Mount



## \*Hi-Density



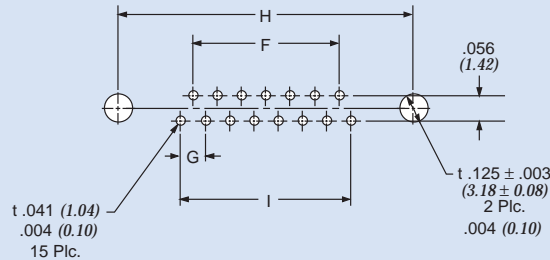
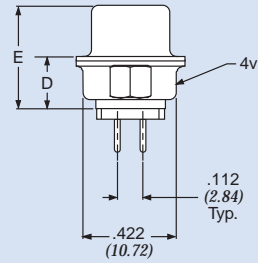
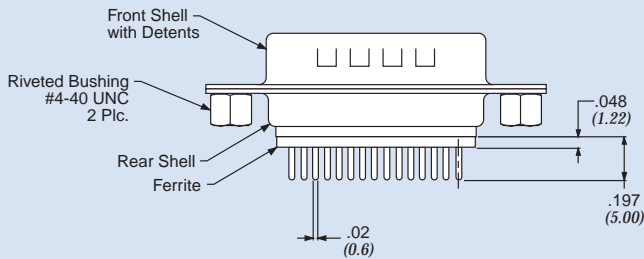
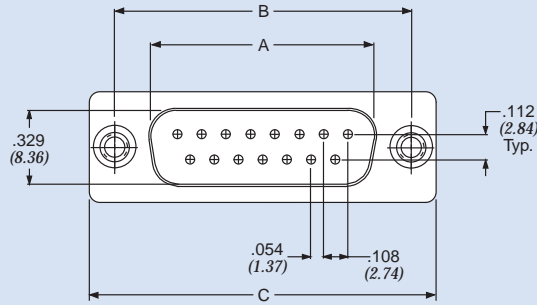
Part Number	Description	Typ. Impedance (Ohms)		Frequency Range	A +/-	B +/-	C +/-	D +/-	E +/-	F +/-	G +/-	H +/-	I +/-
		25 MHz	100 MHz		0.010 (0.25)	0.005 (0.13)	0.015 (0.38)	0.010 (0.25)	0.015 (0.38)	0.005 (0.13)	0.004 (0.10)	0.005 (0.13)	0.005 (0.13)
€ 56-404-001	D-Sub 9 socket	30	50	10 MHz to 300 MHz	0.643 (16.33)	0.984 (25.00)	1.213 (30.81)	0.318 (8.08)	0.755 (19.20)	0.327 (8.31)	0.109 (2.77)	0.984 (25.00)	0.436 (11.07)
€ 56-414-001	D-Sub 15 socket				0.971 (24.66)	1.312 (33.32)	1.541 (39.14)	0.318 (8.08)	0.755 (19.20)	0.654 (16.61)	0.109 (2.77)	1.312 (33.32)	0.763 (19.38)
€ 56-424-001	D-Sub 25 socket				1.511 (38.38)	1.852 (47.04)	2.088 (53.04)	0.318 (8.08)	0.755 (19.20)	1.199 (30.45)	0.109 (2.77)	1.852 (47.04)	1.308 (33.22)
€ 56-414-001-HD	Hi-Density 15 socket				0.643 (16.33)	0.984 (25.00)	1.213 (30.81)	* See inset drawing					

€ Also available through Spectrum Control's authorized European distributors/agents.

Dimensions in inches (mm)

# Series 400 Ferrite Filtered Connectors

## Pin Contact – Vertical Mount



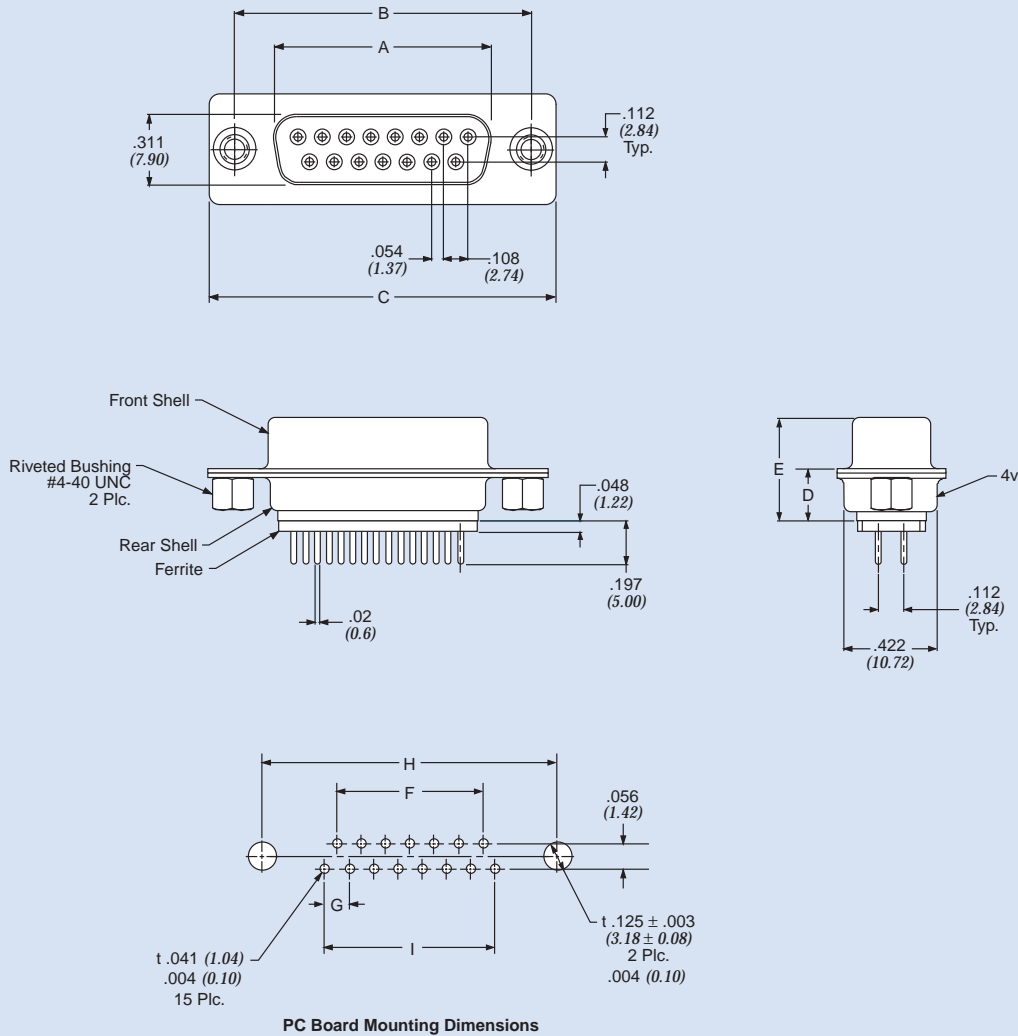
PC Board Mounting Dimensions

Part Number	Description	Typ. Impedance (Ohms)		Frequency Range	A +/-	B +/-	C +/-	D +/-	E +/-	F +/-	G +/-	H +/-	I +/-
		25 MHz	100 MHz		0.010 (0.25)	0.005 (0.13)	0.015 (0.38)	0.010 (0.25)	0.015 (0.38)	0.005 (0.13)	0.004 (0.10)	0.005 (0.13)	0.005 (0.13)
56-407-001	D-Sub 9 pin	30	50	10 MHz to 300 MHz	0.666 (16.92)	0.984 (25.00)	1.213 (30.81)	0.236 (5.99)	0.468 (11.88)	0.327 (8.31)	0.109 (2.77)	0.984 (25.00)	0.436 (11.07)
56-417-001	D-Sub 15 pin				.994 (25.25)	1.312 (33.32)	1.541 (39.14)	0.236 (5.99)	0.468 (11.88)	0.654 (16.61)	0.109 (2.77)	1.312 (33.32)	0.763 (19.38)
56-427-001	D-Sub 25 pin				1.534 (38.96)	1.852 (47.04)	2.088 (53.04)	0.236 (5.99)	0.468 (11.88)	1.199 (30.45)	0.109 (2.77)	1.852 (47.04)	1.308 (33.22)

Dimensions in inches (mm)

# Series 400 Ferrite Filtered Connectors

## Socket Contact – Vertical Mount



Part Number	Description	Typ. Impedance (Ohms)		Frequency Range	A +/-	B +/-	C +/-	D +/-	E +/-	F +/-	G +/-	H +/-	I +/-
		25 MHz	100 MHz		0.010 (0.25)	0.005 (0.13)	0.015 (0.38)	0.010 (0.25)	0.015 (0.38)	0.005 (0.13)	0.004 (0.10)	0.005 (0.13)	0.005 (0.13)
56-403-001	D-Sub 9 socket	30	50	10 MHz to 300 MHz	0.643 (16.33)	0.984 (25.00)	1.213 (30.81)	0.236 (5.99)	0.472 (11.98)	0.327 (8.31)	0.109 (2.77)	0.984 (25.00)	0.436 (11.07)
56-413-001	D-Sub 15 socket				.971 (24.66)	1.312 (33.32)	1.541 (39.14)	0.236 (5.99)	0.472 (11.98)	0.654 (16.61)	0.109 (2.77)	1.312 (33.32)	0.763 (19.38)
56-423-001	D-Sub 25 socket				1.511 (38.38)	1.852 (47.04)	2.088 (53.04)	0.236 (5.99)	0.472 (11.98)	1.199 (30.45)	0.109 (2.77)	1.852 (47.04)	1.308 (33.22)

Dimensions in inches (mm)