

D-Subminiature Part Numbering System

Ordering Information

Example: **56-513-012-TI**

56 - **5** **1** **3** - **0** **12** - **TI**

Product Series
4 = Series F
Ferrite
5 = Series 500
Low Profile
6 = Series 600
Hi-Density
7 = Series 700
High Performance

Filtered D-Subminiature Connectors

- Standard connector
F - RoHS compliant version

Shell Size
Series 400 & Series 500
0 = 9 Contacts
1 = 15 Contacts
2 = 25 Contacts
3 = 37 Contacts
Series 600 Hi-Density
0 = 15 Contacts
1 = 26 Contacts
2 = 44 Contacts
3 = 62 Contacts
4 = 78 Contacts
Series 700
0 = 9 Contacts
1 = 15 Contacts
2 = 25 Contacts
3 = 37 Contacts
4 = 50 Contacts

Contact Type/Termination

1 = Pin to solder cup
2 = Pin to 90° PCB mount
3 = Socket to straight PCB mount
4 = Socket to 90° PCB mount
5 = Pin-socket adapter
6 = Socket to solder cup
7 = Pin to straight PCB mount

Styles available for:

Series 400 only 2, 3, 4, 7

Series 500 only 2, 3, 4 & 7

Series 600 only 1, 2, 3, 4, 5

Series 700 1 thru 7

Note: 1 can be Pin to solder cup
or Pin to PCB for Series 700.
See charts pages FC22-FC41.

Line Filtering
0 = All positions same
9 = Special loading (Series 600 only)

Capacitance Value

Series 400
01 = Always
Series 500
10 = 120 pF
11 = 440 pF
12 = 840 pF
13 = 1000 pF
14 = 1500 pF
Series 600
15 = 85 pF FT
16 = 180 pF FT
18 = 1000 pF FT
19 = 4000 pF FT
20 = Insulated contact
Series 700
See filter specification chart on page FC20 and select part numbers from Series 700 charts pages FC22-FC41.

Options

See options descriptions on page FC43
add suffix ending

Series F

HD = Hi-Density
(15 socket only)

Series 500

TI = 4-40 threads on mounting flange (.125" hole if not selected)

GBL = Grounded board lock includes 4-40 threads (available only on 90° PCB)

GBLF = Grounded board lock and ferrite slab provides enhanced LC performance. (Available only on 90° PCB)

Series 600 Hi-Density

LI = 4-40 UNC inserts
S = Solder dipped tails
50G = 50 μ (1.27 μ m) gold
GBL = Ground board lock

Series 700

LI = 4-40 UNC inserts
LIM = Metric M3.0 self-locking threads
GB = Metal bracket provides ground connection, includes 4-40 self-locking threads (for right angle mount only)
GBL = Grounded board lock (right angle)
GBL6 = for .062" boards (straight PCB mount) (1.57mm)
GBL9 = for .093" boards (straight PCB mount) (2.36mm)
50G = 50 μ (1.27 μ m) gold plating
S = Solder dipped tails
JS = Jackscrew mounting
For option combinations, consult factory.

To assist your efforts in selecting the correct Filtered Connector to meet your needs, we have developed a part numbering system. All of the standard products are shown in their respective catalog pages.

Part number **56-513-012-TI** represents a Series 500 connector with 15 contacts in a socket to straight PCB mount configuration. All connector positions have a capacitance value of 840 pF and there are 4-40 threads on mounting flange.

D-Subminiature Connector Options

Threaded Inserts

Available on Series 500, 600 & 700

- #4-40 UNC or metric M3.0 threaded inserts in mounting flanges
- Allows ease of panel-assembly
- Plated steel inserts with last thread upset for torque

Grounding Bracket

For right angle mount PCB connectors, available on Series 700

- Metal bracket in place of plastic
- Provides ground connection direct from circuit board
- Allows shell grounding to board
- Includes 4-40 threads

Stand-off with Board Lock Feature

For straight PCB connectors, available on Series 700

- Allows shell grounding to board
- Eliminates stress on filter terminations
- Tin plated brass stand-off with snap-in feature
- Available for .062" (1.57mm) or .093" (2.36mm) thick boards

Grounding Bracket with Board Lock

For right angle mount PCB connectors, available on Series 500 & 700

- Metal bracket provides grounding
- Snap-in, no hardware needed, 4-40 threads included
- For use on .062" (1.57mm) thick boards

Gold Plating

Available on Series 600 & 700

- High reliability applications, 50µ" (1.27 µm) gold over 50µ" (1.27 µm) nickel

Solder Dipped Tails

Available on Series 600 & 700 connectors

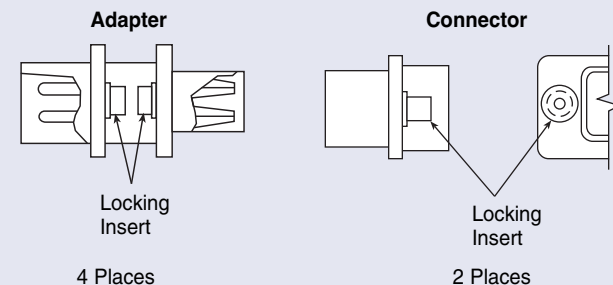
- Solder dipped tails added to standard gold flash

Water Block

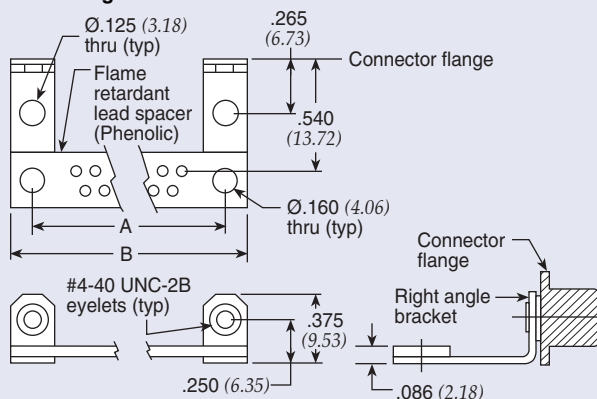
Consult API engineers for specifics.

- Internally sealed in accordance with NEMA Standard Rain Test section 6.4 (also UL50 part 28 ram test for submersion, section 6.10.1)

Threaded Inserts

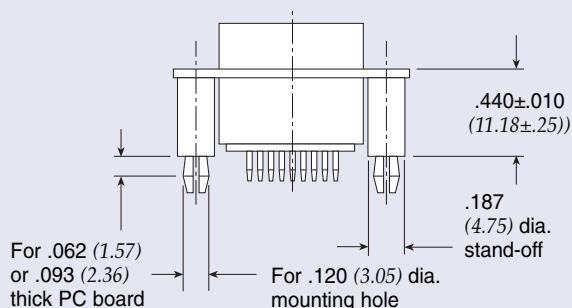


Grounding Brackets

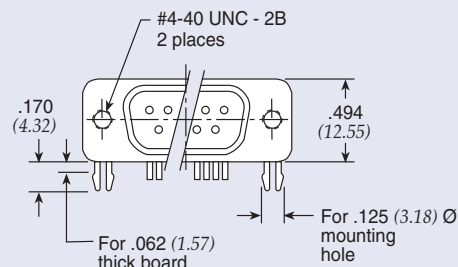


Size	A	B
9	.984 (24.99)	1.214 (30.84)
15	1.312 (33.32)	1.542 (39.17)
25	1.852 (47.04)	2.088 (53.04)
37	2.500 (63.50)	2.730 (69.34)

Stand-off with Board Lock



Grounding Bracket with Board Lock (see above for grounding bracket details)



Dimensions in inches (mm)

Filtered Combo D-Subminiature Connectors

API's Spectrum Control line of filtered combo D-sub provide high insertion loss with capacitive filtering. These connectors are available with 20 Amp power contacts or 40 Amp power contacts. Configurations include male and female versions with straight PC terminals, right angle PC terminals or solder cup terminals. Standard D-sub shell sizes provide interchangeability with unfiltered connectors. High strength epoxy potting protects ceramic elements.

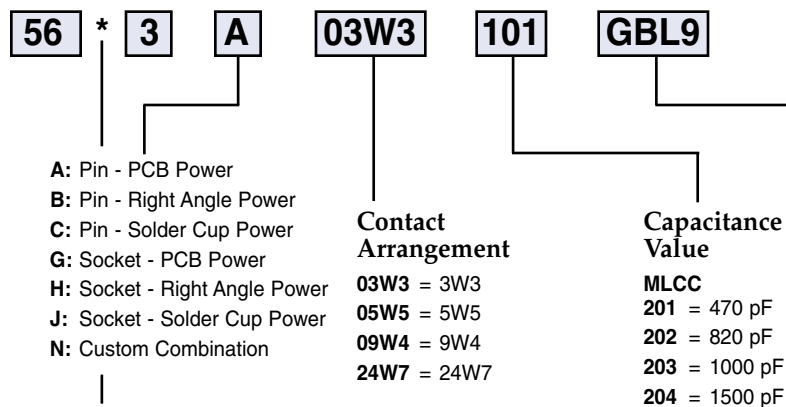
Capacitive filtering is available in 470, 820, 1000 and 1500 pF. Additional capacitance ranges and configurations can be provided upon request. Please consult factory for more information.

Applications

- Telecommunications base station equipment
- Switching and transmission equipment
- Power supplies
- Industrial equipment
- Computer work stations

Ordering Information

Example: **563A03W3101GBL9**



* Insert "F" for RoHS compliant



Mechanical Specifications

Shell	Steel, tin plated
Power Contacts	Brass, gold plated .000030 in. (0.762 μ m) minimum
Signal Contacts	Pin: brass, gold plated .000015 in. (0.762 μ m) min. Socket: copper alloy, gold plated .000030 in. (0.762 μ m) min.
Insulator	Glass-filled polyester, flammability UL94V-0
Operating Temperature	-55°C to +125°C
Capacitors	MLCC

Electrical Specifications

Operating Voltage	200 VDC
Current Rating*	40 Amp power/ 5 Amp signal
Insulation Resistance	1 Gohm at 100 VDC
Capacitance	See below for MLCC values. For other capacitance values contact factory.

Dielectric Withstanding Voltage 600 VDC

*30 Amp available. Consult factory.

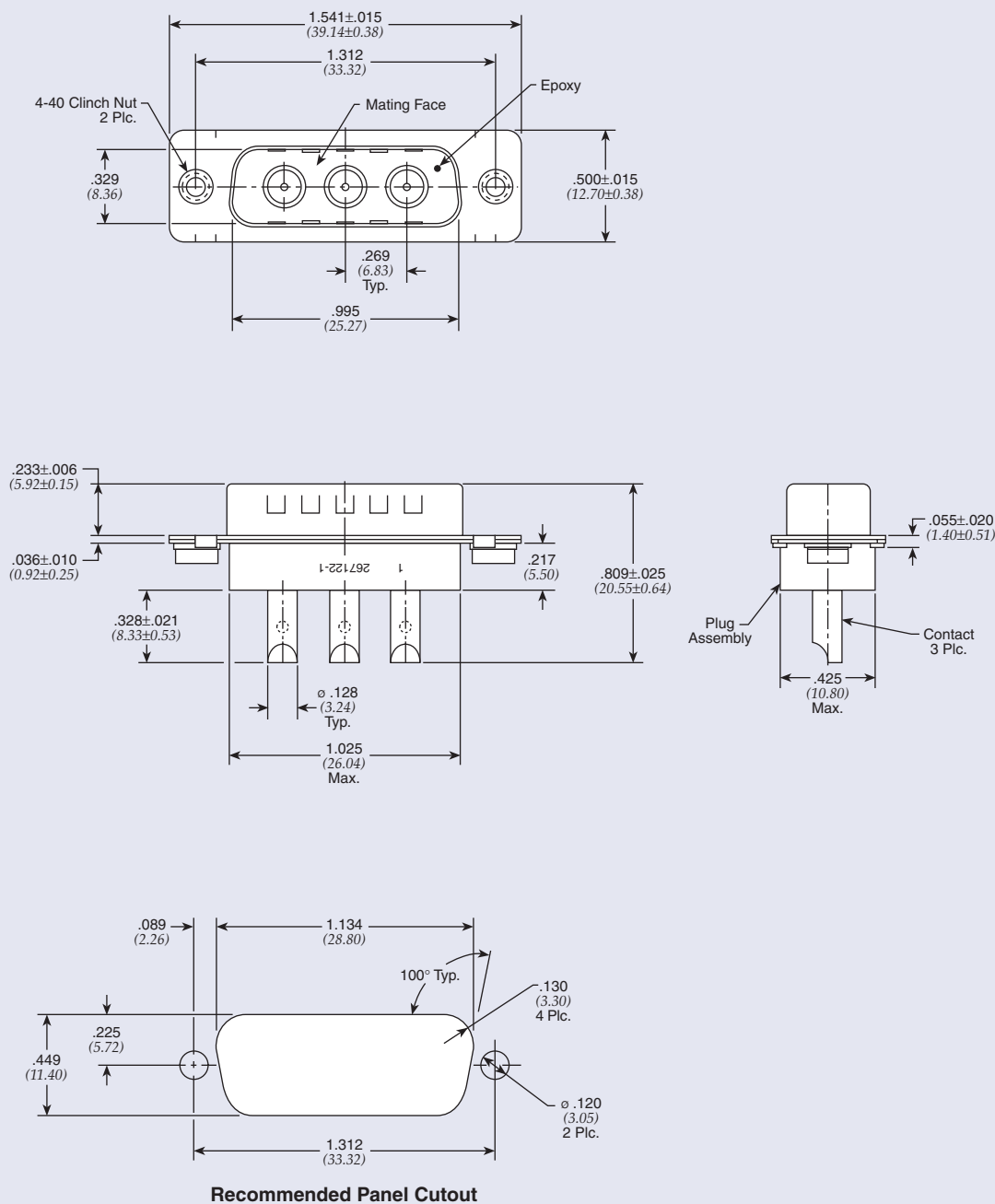
Options

See options descriptions on page FC43 add suffix ending

- LI** = 4-40 UNC inserts
 - LIM** = Metric M3.0 self-locking threads
 - GB** = Metal bracket provides ground connection, includes 4-40 self-locking threads (for right angle mount only)
 - GBL** = Grounded board lock (right angle)
 - GBL6** = for .062" boards (straight PCB mount)
 - GBL9** = for .093" boards (straight PCB mount)
 - 50G** = 50 μ (1.27 μ m) gold plating
 - S** = Solder dipped tails
 - JS** = Jackscrew mounting
- For option combinations, consult factory.

Filtered Combo D-Subminiature Connectors 3W3

Plug - Solder Cup

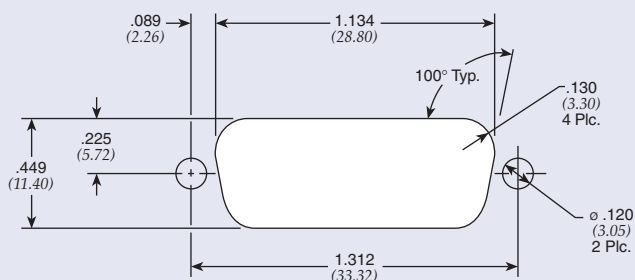
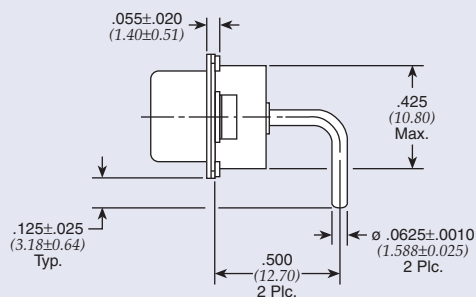
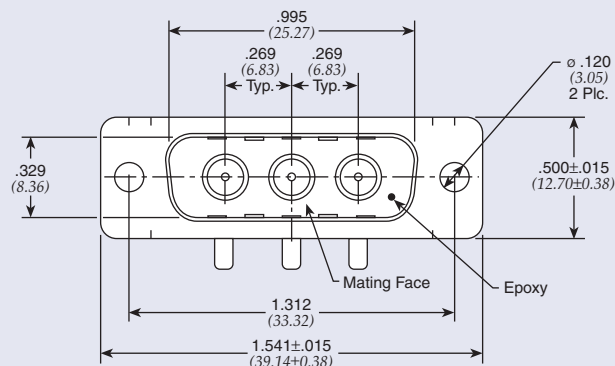
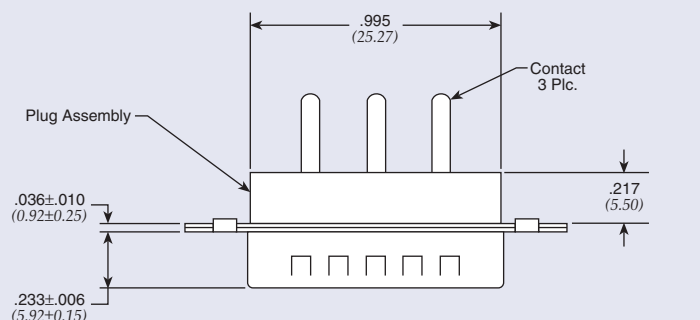


Only represents a few of our available configurations. Consult factory for more information.

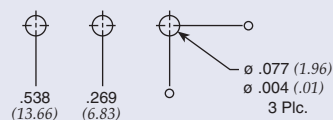
Dimensions in inches (mm)

Filtered Combo D-Subminiature Connectors 3W3

Plug - Right Angle



Recommended Panel Cutout

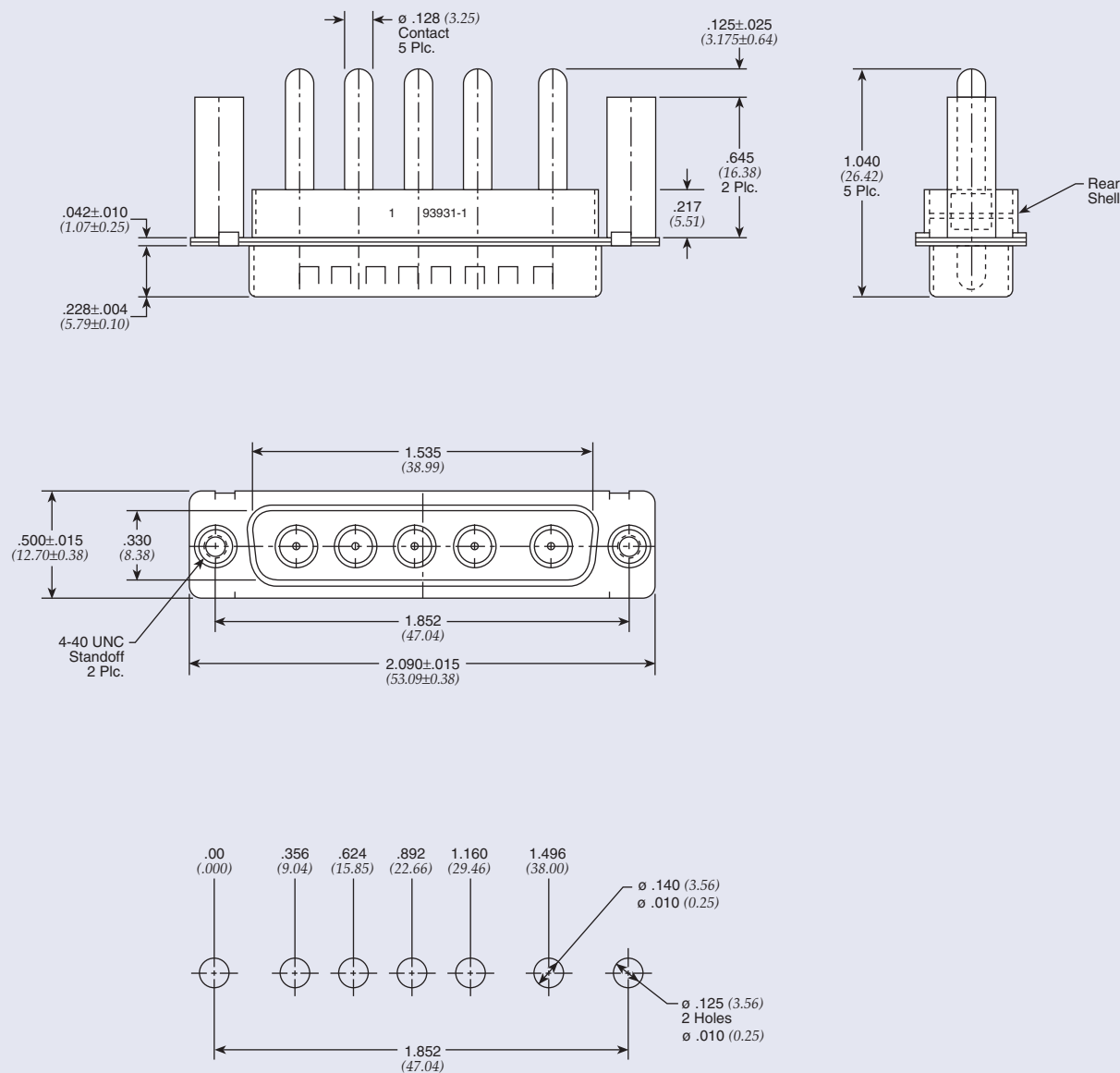


Only represents a few of our available configurations. Consult factory for more information.

Dimensions in inches (mm)

Filtered Combo D-Subminiature Connectors 5W5

Plug - Vertical



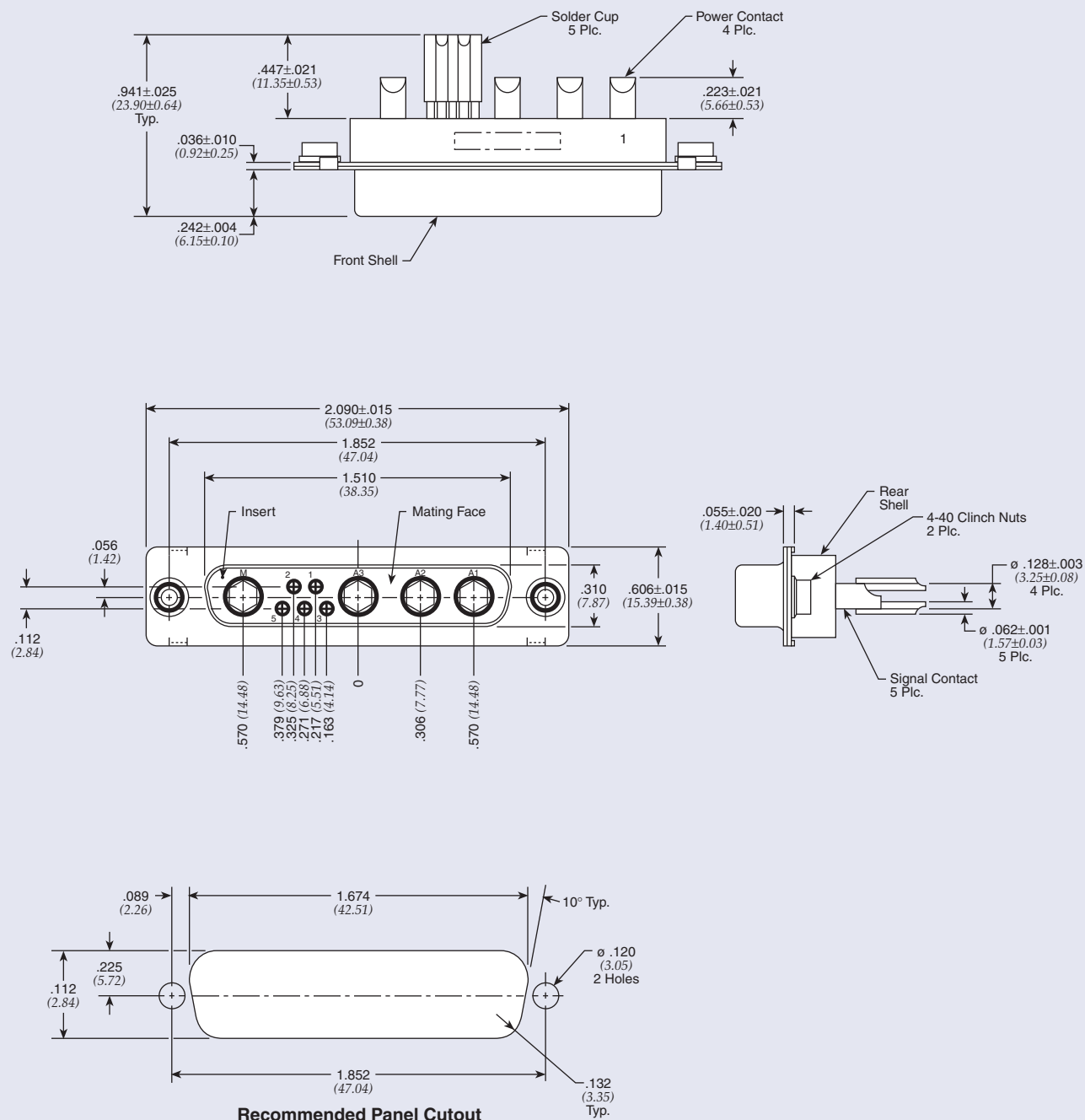
Recommended PCB Layout

Only represents a few of our available configurations. Consult factory for more information.

Dimensions in inches (mm)

Filtered Combo D-Subminiature Connectors 9W4

Socket - Solder Cup

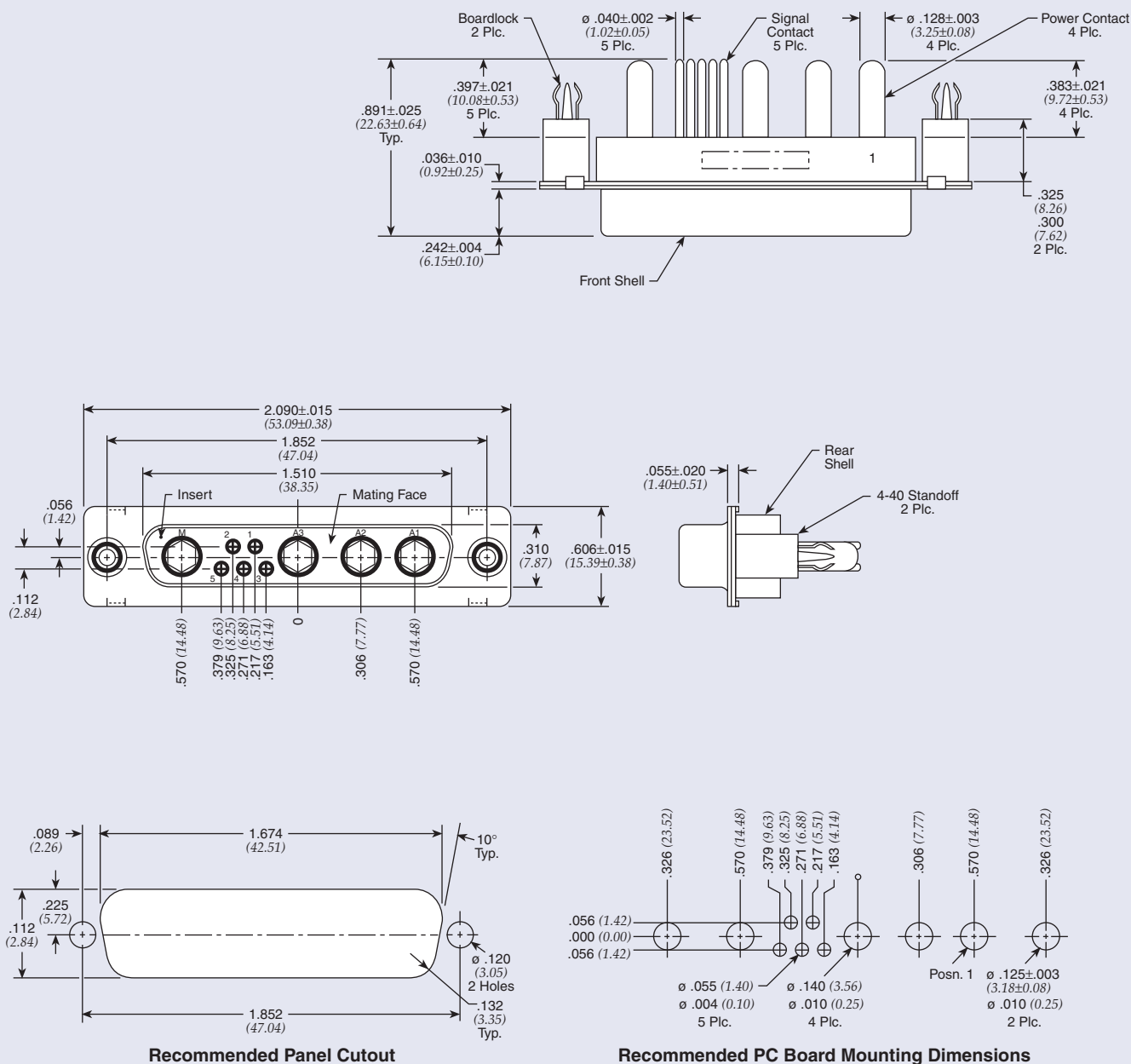


Only represents a few of our available configurations. Consult factory for more information.

Dimensions in inches (mm)

Filtered Combo D-Subminiature Connectors

Socket - Vertical

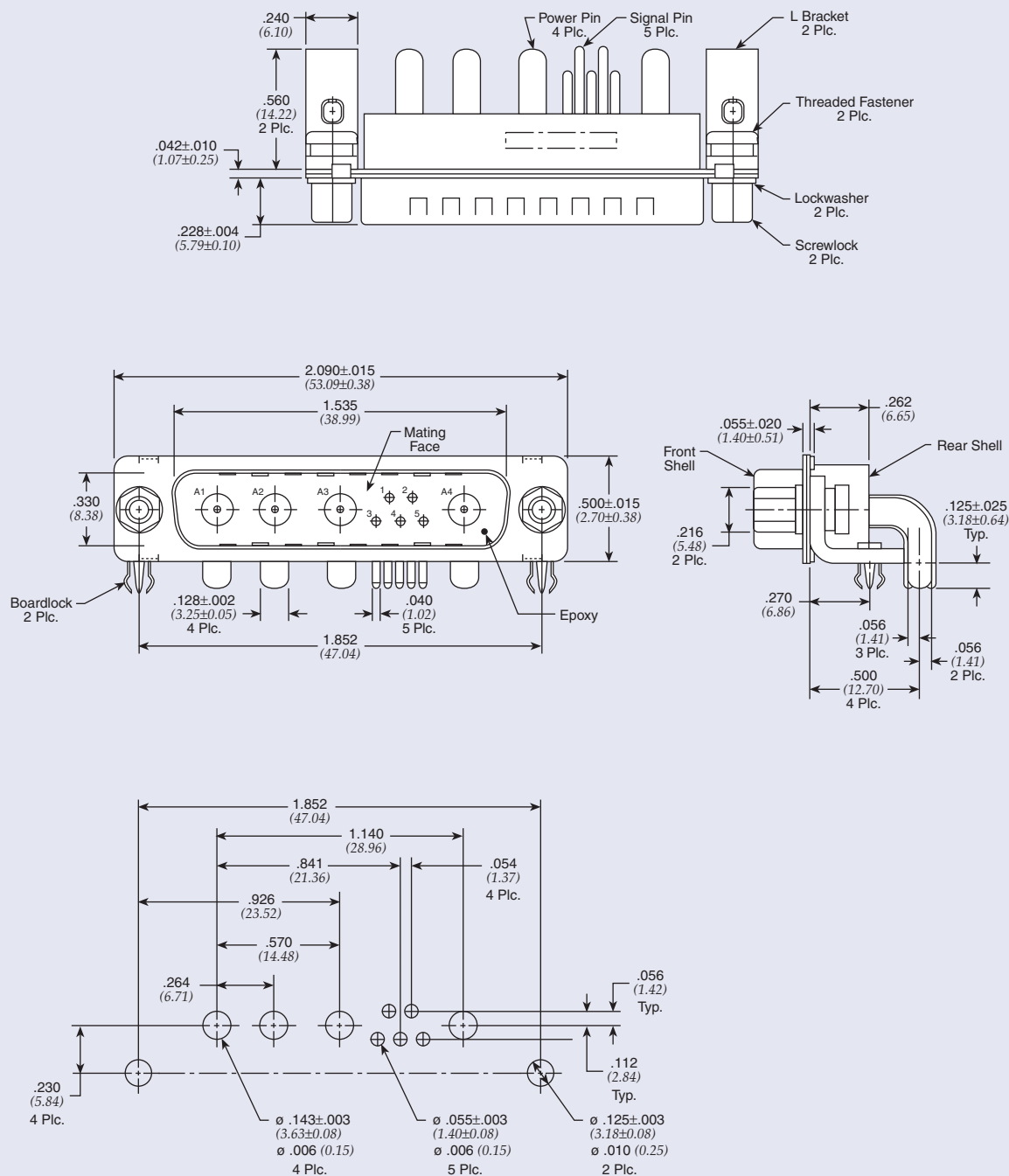


Only represents a few of our available configurations. Consult factory for more information.

Dimensions in inches (*mm*)

Filtered Combo D-Subminiature Connectors 9W4

Plug - Right Angle

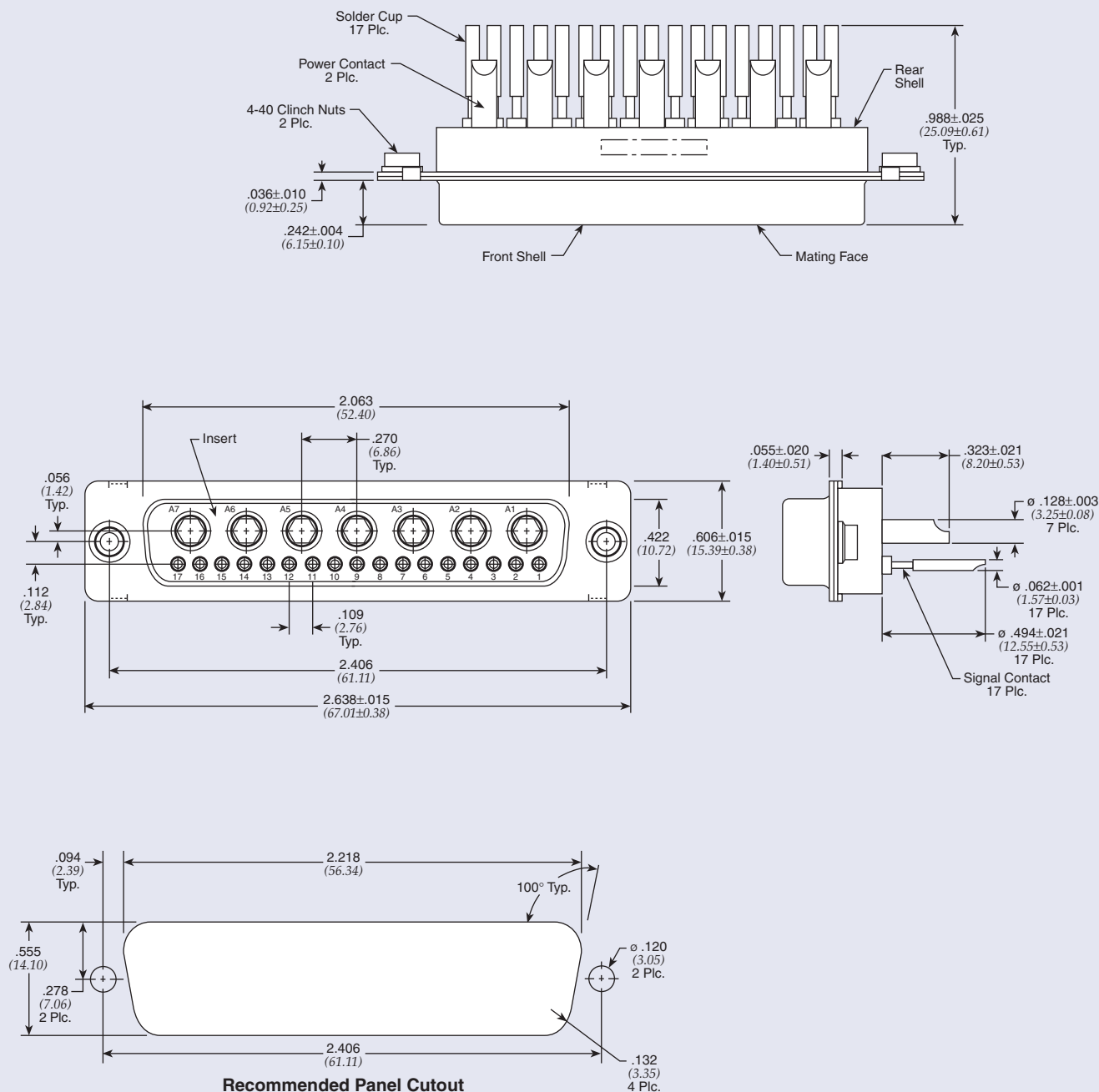


Only represents a few of our available configurations. Consult factory for more information.

Dimensions in inches (mm)

Filtered Combo D-Subminiature Connectors 24W7

Socket - Solder Cup



Only represents a few of our available configurations. Consult factory for more information.

Dimensions in inches (mm)

D-Subminiature Adapter Test Kit & Hardware

Adapter Test Kit

Specially designed for EMI evaluation process

- Male/female adapter part
- Easily plugged into equipment under testing conditions
- Ideal for new products and retrofitting
- Each adapter test kit includes:
 - 20 filtered adapters
 - Four shell sizes 9, 15, 25 and 37
 - Four filter ranges:

Series 700

- 310 pF Pi
- 830 pF FT
- 1000 pF Pi
- 4000 pF Pi

Ordering Information

Description	API Part Number
Adapter test kit	56-700-002
Adapter test kit with Jackscrew <i>Includes 40 pcs. 56-201-006</i>	56-700-002-JS
Hexagonal Spacer	56-201-001 (1 per)
Jackscrew Mounting Hardware <i>For .312" (7.92 mm) length</i>	56-201-004 (1 per)
Jackscrew Mounting Hardware <i>For .688" (17.47 mm) length</i>	56-201-006 (2 per)
Tubular Spacer	56-201-003 (1 per)



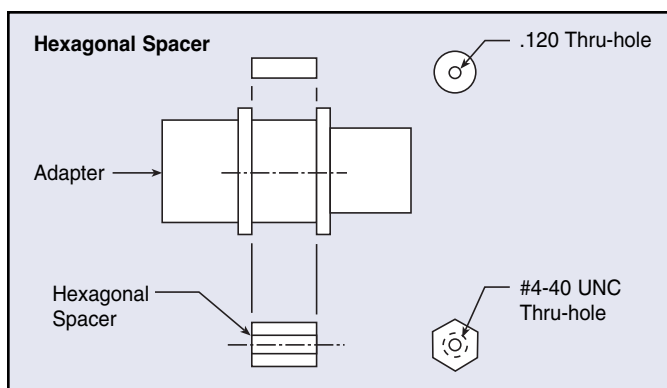
Adapter Test Kit

Hardware

Designed to provide simple and effective mounting

Hexagonal Spacer

- Tapped spacer fits between flanges
- Provide retrofit of 4-40" threads
- Two spacers per adapter required, packaged in bulk



Jackscrew Mounting Hardware

- Male/female jackscrews
- Standard 4-40 threads for compatibility
- Two male thread lengths available
- Two screws per adapter required
- Lockwasher included, packaged in bulk

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

API Technologies:

[56-726-002-LI](#) [56-731-012](#) [56-736-002-LI](#) [56-726-003](#) [56-722-003-GB](#) [56F704-003-GB](#) [56F713-003-LI](#) [56-711-118](#)
[563B03W3032](#) [56-523-012-TI](#) [56-527-012-TI](#) [56-711-030-GBL6](#) [56F126-007-TIB](#) [56-742-004-LI](#) [563C05W5101LI](#)
[56-734-002-LI](#) [56-731-003](#)