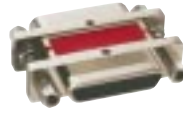


MICROMINIATURE CONNECTORS

Amphenol's Phoenix Interconnect



Since the advent of the microprocessor, advances in technology have doubled the speed and density of the microprocessor each year. Interconnection technology has been driven by microprocessor densities to put more interconnections into smaller and smaller packages. Conventional interconnects have gone from spacing of .200" to .156" to .125" to .100" and now to .050" with the next generation down to .025" and below. The Military Specification MIL-C-83513 has given the microminiature connectors standardization and a performance criteria. Stamping technology has given industry a micro contact that can be produced in a cost-effective method.

AMPHENOL PHOENIX INTERCONNECT INC. is answering the need in the industry for a well engineered contact system coupled with forward thinking design engineering solutions to meet today's ever evolving high density connector requirements. AMPHENOL PHOENIX INTERCONNECT INC. has developed a micro contact that meets and exceeds the requirements of MIL-C-83513. The contacts can be assembled into all plastic and metal shell insulators per MIL-C-83513 or all plastic insulators that are dimensionally the same as the metal shell connectors but for those applications that don't require the metal shell. There is also a line of printed circuit micro-connectors that solves wire to board interconnect applications, as well as circular and hybrid connectors.

Using this contact systems, AMPHENOL PHOENIX INTERCONNECT INC. can design connectors that hit the customers' specific application. Using state of the art CAD systems and the vast experience base in micro-technology AMPHENOL PHOENIX INTERCONNECT INC. can offer solutions to today's high density packaging and interconnection applications. These solutions for high density interconnect cover many industries from automotive to personal computer, from space application to medical and test instrumentation.

AMPHENOL PHOENIX INTERCONNECT INC. is not limited to the traditional MIL-DTL83513 rectangular connectors but has developed and produced circular connectors, strip connectors, PC board connectors, and hybrid connectors utilizing power, signal, coaxial and fiber optics contacts.

Additionally, AMPHENOL PHOENIX INTERCONNECT INC. has the engineering expertise to design, tool and manufacture application specific connectors to customer requirements.



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Microminiature Connector

The following data applies to a standard Phoenix connector with wire. Variations from standard products may cause performance to vary from that mentioned below. Consult factory for special applications and requirements.

SPECIFICATIONS:

STANDARD MATERIALS AND FINISHES

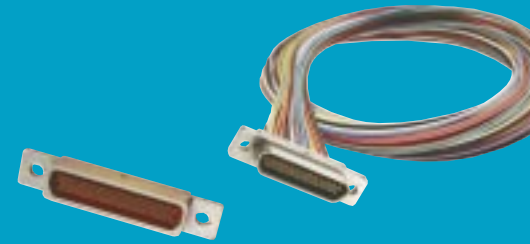
Shell	Aluminum alloy per QQ-A-200/8 (6061-T6) Yellow chromate / cadmium per QQ-P-416 Type II, class 3
Insulator	Polyphenylene sulfide per MIL-M-24519, type GST-40F. Color: black
Contacts	Copper alloy, 50 gold plate over nickel
Mounting Hardware	300 series stainless steel, passivate
Kit, Jackpost (3) Items	300 series stainless steel, passivate
Washers	400 series stainless steel, passivate
Standard Epoxy	EP1730-1 Color: black
High Temperature Epoxy	Stycast 2651/11 up to 200C
Wire	Insulated: stranded teflon per NEMA-HP3 (MIL-W-16878) Stranded teflon per MIL-W-22759 Uninsulated: solid copper per A-A-59551 (QQ-W-343)

MECHANICAL FEATURES

Coupling	Friction / jackscrews
Polarization	Keystone shaped shells
Contact Spacing	.050 (1.27) Centers
Shell Styles	Plug and receptacle

ELECTRICAL DATA

Number of Contacts	9 thru 100 standard; 5 signal / 2 coax; 5 signal / 2 power; 20 signal / 4 coaxial; 20 signal / 4 power.
Coaxial Cable	RG-178/U
Wire Size	#24 thru #32 AWG
Contact Termination	Multiple indent crimp



The Amphenol Microminiature connector series offers proven Mil Spec performance and reliability in rectangular and strip line micro connectors. Microminiature connectors are available in rectangular D, strip and custom card edge configurations, with contacts on .050 (1.27) centers. Inserts in Micro D miniature connectors with signal and coax contacts are also available.

The Amphenol Microminiature contact system employs a custom stamped and formed Pin Contact recessed within the plug insulator. The socket contact is a precision fabricated tube. Pin and socket contacts are epoxy retained in hi grade thermoplastic insulators.

The contact system has proven reliability, exceeding the performance specifications of Mil-DTL-83513.

Terminations are available in a broad range including solder cup, terminated to wire harness, vertical and right angle PCB.

Plastic and metal shell versions are available, in a broad range of shell finishes.

A broad range of mounting hardware is available (jackscrews, posts, guide pins) as well as straight and angled back-shells.

INCHES (MM)

Microminiature Connector Performance Data

The following data applies to a standard Pheonix connector with wire. variations from standard products cause performance to vary from that mentioned below. consult factory for special applications and requirements.

Test Description	Specification/ Method	Limits
Contact Rating	---	3 amps max.
Magnetic Permeability	MIL-I-17214	2.0 max.
Dielectric Withstanding Voltage at sea level	MIL-STD-1344 Method 3001	{ 600 vac for solder pot { 900 vac for standard wire { 150 vac for solder pot { 300 vac for standard wire
at 70,000 feet altitude (Reduced barometric pressure)		
Insulation Resistance	MIL-STD-1344 Method 3003	5000 megohms min.
Contact Resistance	MIL-DTL-83513	8 milliohms at 3 amps
Contact Engagement Force	MIL-DTL-83513	6.0 oz. max.
Contact Separation Force	MIL-DTL-83513	0.5 oz. min.
Connector Mating Force	MIL-DTL-83513	8.0 oz. max. x no. of contacts
Connector Unmating Force	MIL-DTL-83513	0.5 oz. min. x no. of contacts
Thermal Shock	MIL-STD-1344 Method 1003, Condition A: -550 C TO +1250 C	No physical damage
Physical Shock	Method 2004, Condition E 50 G's, 3 axes, 6 millisecond duration Sawtooth Pulse	No physical damage No loss of continuity > 1 sec.
Vibration	Method 2005, Condition IV 20 G's, 10-2000 Hz, 12 hrs.	No physical damage No loss of continuity > 1 sec.
Durability	MIL-DTL-83513	500 cycles, 500 CPH max.
Salt Spray	Method 1001, Condition B 48 hours	Meets mateability and Contact resistance requirements
Fluid Immersion	MIL-DTL-83513	Meets mateability requirements
Humidity	MIL-STD-1344 Method 1002, Type II (Omit steps 7A and 7B)	1 megohm after step 6, 1000 megohms after 24 hrs. condition
Insertion Retention	MIL-DTL-83513	50.0 lbs. sq. in.
Solderability	MIL-STD-202 Method 208	
Contact Retention	MIL-DTL-83513	5.0 lbs. min. axial load
Thermal Outgassing	SP-R-0022	exceeds MIL-DTL-83513 requirements

ORDERING INFORMATION

Series 100, 102, and 104 Connectors

Qualified to MIL-DTL-83513/01, 02, 03, 04 • Plastic and metal shells are intermateable and intermountable

Available in sizes 9 to 100 • Solder cup or crimp termination

100 R X XXX X - X X X X XX - XX

Connector Series

100 = metal shell per MIL-DTL-83513
 102 = all plastic (dimensionally identical to metal shell per MIL-C-83513)
 104 = stainless steel shell per M83513 (NON QPL)

Insulator Material

R = Polyphenylene Sulfide

Shell Finish

Omit for series 102 & 104
 A = anodize
 C = cadmium
 G = gold
 I = irridite/alodine
 N = electroless nickel
 S = stainless steel passivated
 T = tin

Connector Size

(number of contacts)
 09, 15, 21, 25, 31, 37, 51, 100

Connector Type

P = Plug
 S = Receptacle

Wire Size (AWG.)

1 = 32
 2 = 30
 3 = 28
 4 = 26 (standard) *off shelf
 5 = 25 (standard for solid uninsulated wire)
 6 = 24
 Omit for solder cup contacts

Non Std. Wire Length (Inches)

Hardware

A = .125 mounting holes sizes 9-51
 B = standard mounting holes
 L = captive low profile jackscrew
 K = captive high profile jackscrew
 F = standard float mount
 R = reverse float mount
 M6 = high profile jackscrew, slot head
 M5 = low profile jackscrew, slot head
 M3 = high profile jackscrew, allen head
 M2 = low profile jackscrew, allen head
 P = jackpost

Wire Length

A = 18.00
 B = 36.00
 C = 72.00
 D = 0.500 (solid wire only)
 E = 1.00 (solid wire only)
 X = Non std wire length (add to end of part no.)
 Omit for solder cup contacts

Wire Color / Finish

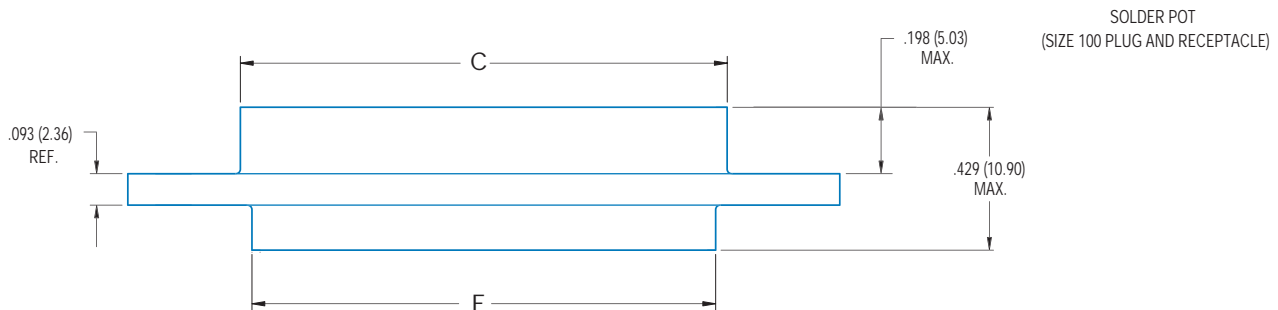
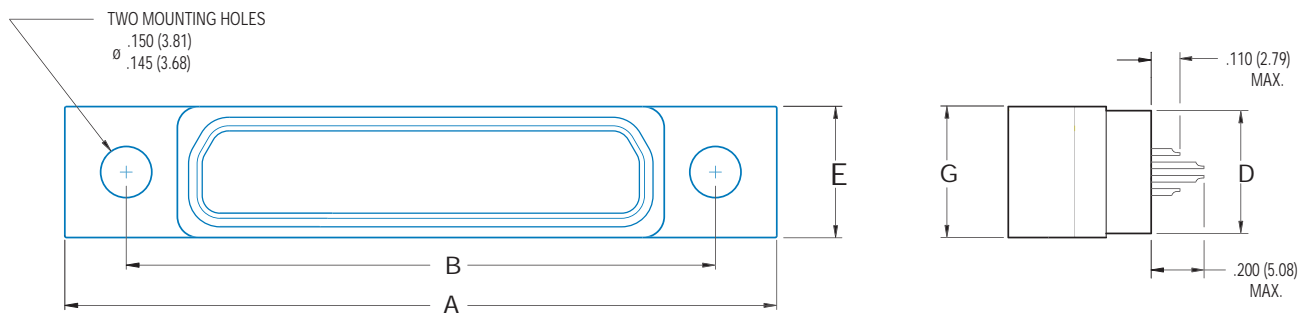
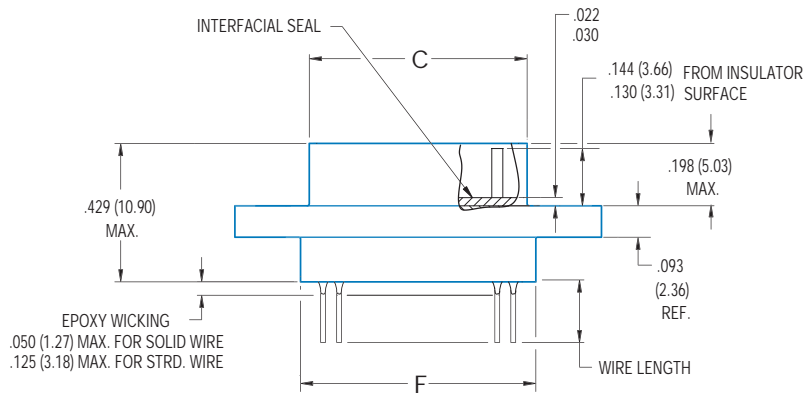
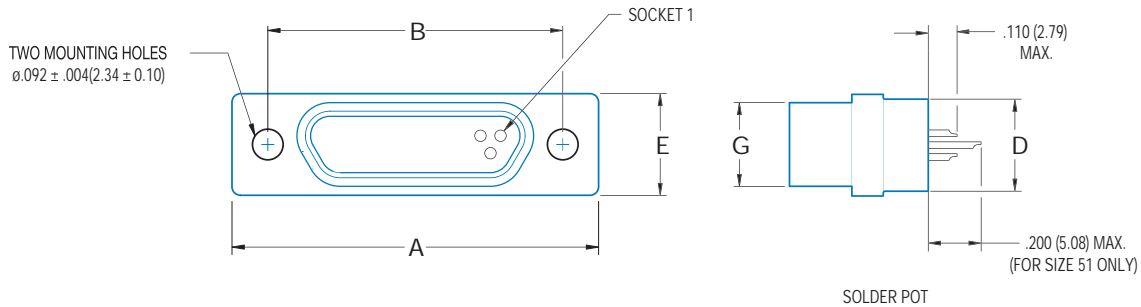
1 = all white
 2 = all yellow
 3 = solid uninsulated, tin plated
 4 = solid uninsulated, gold plated
 5 = color coded per mil-std-681, system 1
 6 = 1st 10 colors blk. thru wht. repeated
 7 = 1st 15 colors blk. thru wht./yel. repeated
 omit for solder cup contacts

Wire Type

A = 7 strd, per NEMA-HP3 (MIL-W-16878/4)
 B = 7 strd, per NEMA-HP3 (MIL-W-16878/4)
 C = 19 strd, per NEMA-HP3 (MIL-W-16878/4)
 D = 19 strd, per NEMA-HP3 (MIL-W-16878/4)
 E = per MIL-W-22759/11
 L = solid uninsulated
 F = per MIL-W-22759/33
 Omit for solder cup contacts

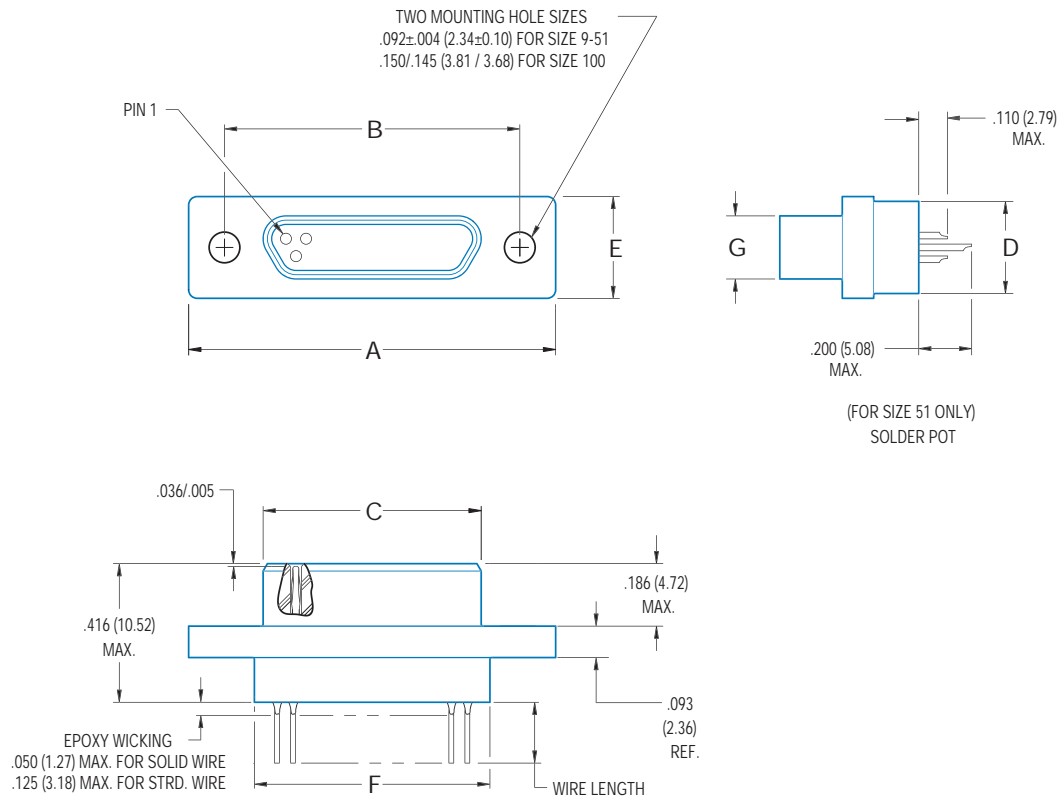
Qualified to MIL-C-83513/02, 04 (series 100)

Connector sizes 9 thru 51



Qualified to MIL-C-83513/01, 03, (Series 100)

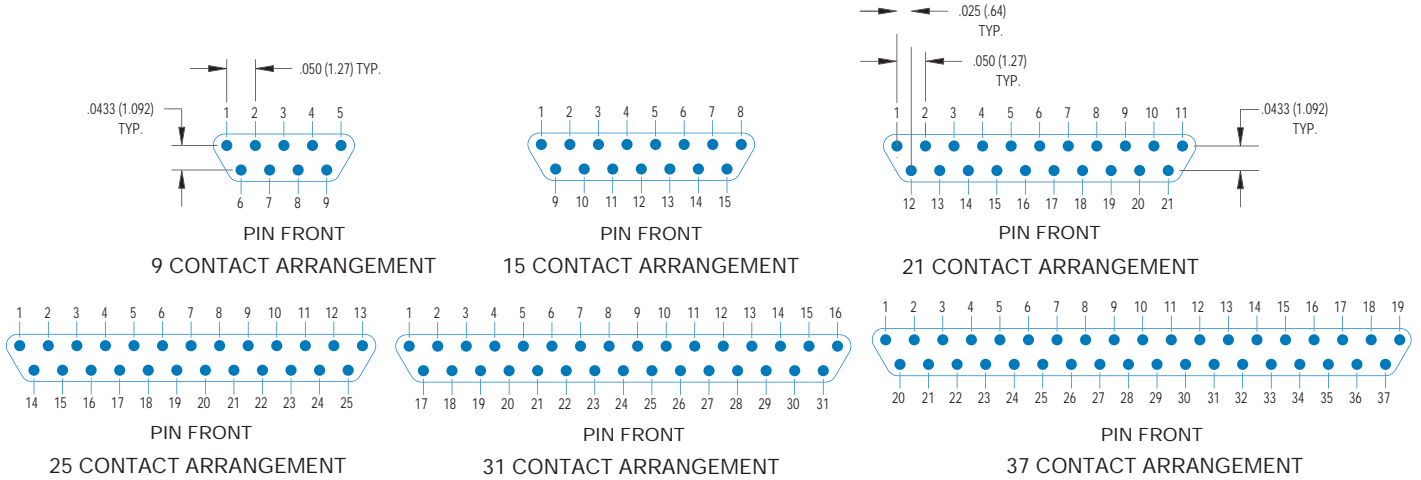
Connector sizes 9 to 100



PART NUMBER	A MAX.	B ±.005	C MAX.	D MAX.	E MAX.	F MAX.	G MAX.
100RC09P	.785 (19.94)	.565 (14.35)	.334 (8.48)	.270 (6.86)	.308 (7.82)	.400 (10.16)	.185 (4.70)
100RC09S	.785 (19.94)	.565 (14.35)	.402 (10.21)	.270 (6.86)	.308 (7.82)	.400 (10.16)	.253 (6.43)
100RC15P	.935 (23.75)	.715 (18.16)	.484 (12.29)	.270 (6.86)	.308 (7.82)	.550 (13.97)	.185 (4.70)
100RC15S	.935 (23.75)	.715 (18.16)	.552 (13.97)	.270 (6.86)	.308 (7.82)	.550 (13.97)	.253 (6.43)
100RC21P	1.085 (27.56)	.865 (21.97)	.634 (16.10)	.270 (6.86)	.308 (7.82)	.700 (17.78)	.185 (4.70)
100RC21S	1.085 (27.56)	.865 (21.97)	.702 (17.83)	.270 (6.86)	.308 (7.82)	.700 (17.78)	.253 (6.43)
100RC25P	1.185 (30.10)	.965 (24.51)	.734 (18.64)	.270 (6.86)	.308 (7.82)	.800 (20.32)	.185 (4.70)
100RC25S	1.185 (30.10)	.965 (24.51)	.802 (20.37)	.270 (6.86)	.308 (7.82)	.800 (20.32)	.253 (6.43)
100RC31P	1.335 (33.91)	1.115 (28.32)	.884 (22.45)	.270 (6.86)	.308 (7.82)	.950 (24.13)	.185 (4.70)
100RC31S	1.335 (33.91)	1.115 (28.32)	.952 (24.18)	.270 (6.86)	.308 (7.82)	.950 (24.13)	.253 (6.43)
100RC37P	1.485 (37.72)	1.265 (32.13)	1.034 (26.26)	.270 (6.86)	.308 (7.82)	1.100 (27.94)	.185 (4.70)
100RC37S	1.485 (37.72)	1.265 (32.13)	1.102 (27.99)	.270 (6.86)	.308 (7.82)	1.100 (27.94)	.253 (6.43)
100RC51P	1.435 (36.45)	1.215 (30.86)	.984 (24.99)	.310 (7.87)	.351 (8.92)	1.050 (26.67)	.228 (5.79)
100RC51S	1.435 (36.45)	1.215 (30.86)	1.052 (26.72)	.310 (7.87)	.351 (8.92)	1.050 (26.67)	.296 (7.52)
100RC100P	2.160 (54.86)	1.800 (45.72)	1.384 (35.13)	.360 (9.14)	.394 (10.01)	1.442 (36.63)	.271 (6.88)
100RC100S	2.160 (54.86)	1.800 (45.72)	1.508 (38.10)	.360 (9.14)	.394 (10.01)	1.442 (36.63)	.394 (10.01)

INCHES (MM)

Cavity identification numbers are for reference only and do not appear on the connector



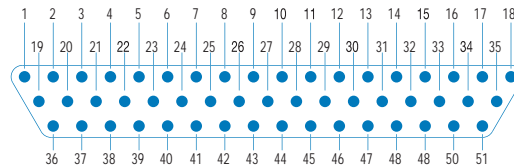
Socket front arrangements are mirror image

Cavity identification numbers are for reference only and do not appear on the connector

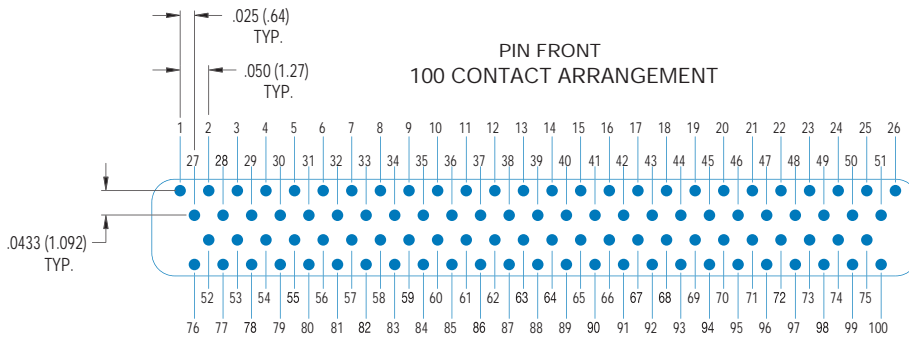
Power and coax contacts are not to MIL-spec

100 Contact Arrangement for Series 100, 101, 102 and 104

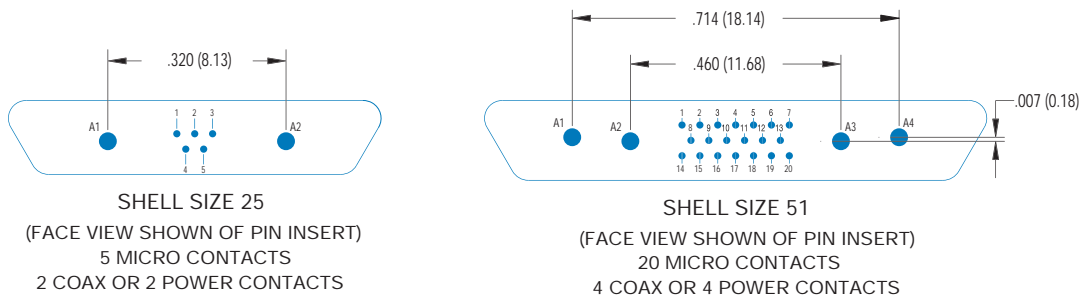
PIN FRONT
51 CONTACT ARRANGEMENT



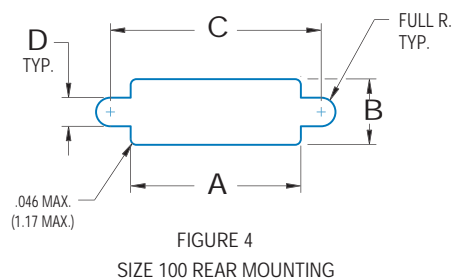
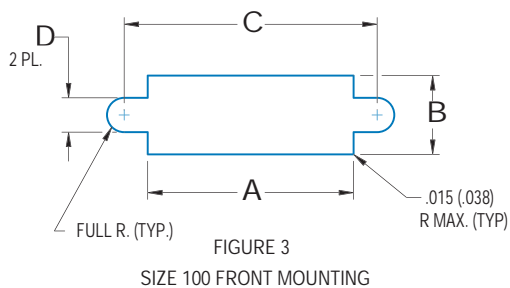
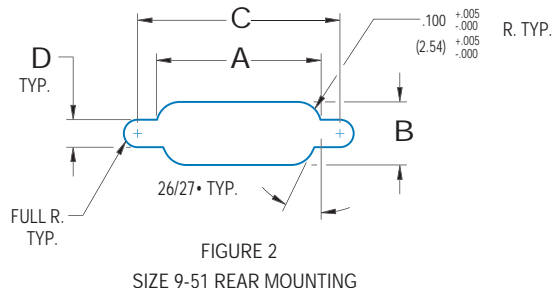
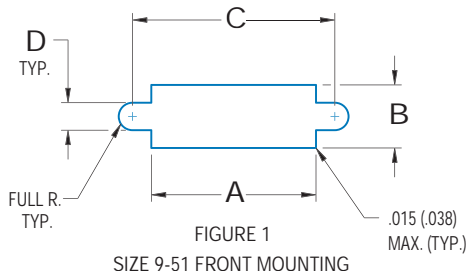
100 Contact Arrangement for Series 100 and 102



Signal, Power, and Coaxial Arrangements



Shell sizes 9 thru 100



SHELL SIZE	CUTOUT FIGURE	A	B	C	D
		+ .004 (0.10) - .000 (0.00)	+ .004 (0.10) - .000 (0.00)	+ .005 (0.13) - .000 (0.00)	+ .005 (0.13) - .000 (0.00)
9	1	.408 (10.36)	.271 (6.88)	.570 (14.48)	.089 (2.26)
	2	.401 (10.19)	.252 (6.40)	.570 (14.48)	.089 (2.26)
15	1	.558 (14.17)	.271 (6.88)	.720 (18.29)	.089 (2.26)
	2	.551 (14.00)	.252 (6.40)	.720 (18.29)	.089 (2.26)
21	1	.708 (17.98)	.271 (6.88)	.870 (22.10)	.089 (2.26)
	2	.701 (17.81)	.252 (6.40)	.870 (22.10)	.089 (2.26)
25	1	.808 (20.52)	.271 (6.88)	.970 (24.64)	.089 (2.26)
	2	.801 (20.34)	.252 (6.40)	.970 (24.64)	.089 (2.26)
31	1	.958 (24.33)	.271 (6.88)	1.120 (28.45)	.089 (2.26)
	2	.951 (24.13)	.252 (6.40)	1.120 (28.45)	.089 (2.26)
37	1	1.108 (28.14)	.271 (6.88)	1.270 (32.26)	.089 (2.26)
	2	1.101 (27.97)	.252 (6.40)	1.270 (32.26)	.089 (2.26)
51	1	1.058 (26.87)	.315 (8.00)	1.220 (30.99)	.089 (2.26)
	2	1.051 (26.70)	.295 (7.49)	1.220 (30.99)	.089 (2.26)
100	3	1.456 (36.98)	.361 (9.17)	1.805 (45.85)	.118 (3.00)
	4	1.520 (38.61)	.401 (10.18)	1.805 (45.85)	.118 (3.00)

NOTES:

1. SHELL SIZES 9-51 FRONT MOUNTING (FIGURE 1) AND REAR MOUNTING (FIGURE 2) CUTOUTS ACCOMMODATE #2-56 SCREWS.
2. SHELL SIZE 100 FRONT MOUNTING (FIGURE 3) AND REAR MOUNTING (FIGURE 4) CUTOUTS ACCOMMODATE #4-40 SCREWS.

ORDERING INFORMATION

PCB Terminating Series 100 and 102 Connectors

Qualified to MIL-DTL-83513/10 thru 27 • Straight and right angle

100 R X XX X - BR X X X - XX

Connector Series

100 = metal shell per MIL-C-83513
102 = all plastic (dimensionally identical to metal shell per MIL-C-83513)
104 = stainless steel shell per M83513 (NON QPL)

Insulator Material

R = Polyphenylene Sulfide

Shell Finish

A = anodize
C = cadmium
N = electroless nickel
G = gold
I = irridite/alodine
T = tin
 Omit for series 102

Connector Size

(Number Of Contacts)
 09, 15, 21, 25, 31, 37, 51, 100

Connector Type

P = Plug
S = Receptacle

Non Std. Wire Length
 (EX = .125)

Lead Length

1 = .109 ± .015
2 = .140 ± .015
3 = .172 ± .015
4 = .250 ± .015
F = Non std. wire length

Threaded Insert

T = Threaded insert
 Omit for no threaded insert

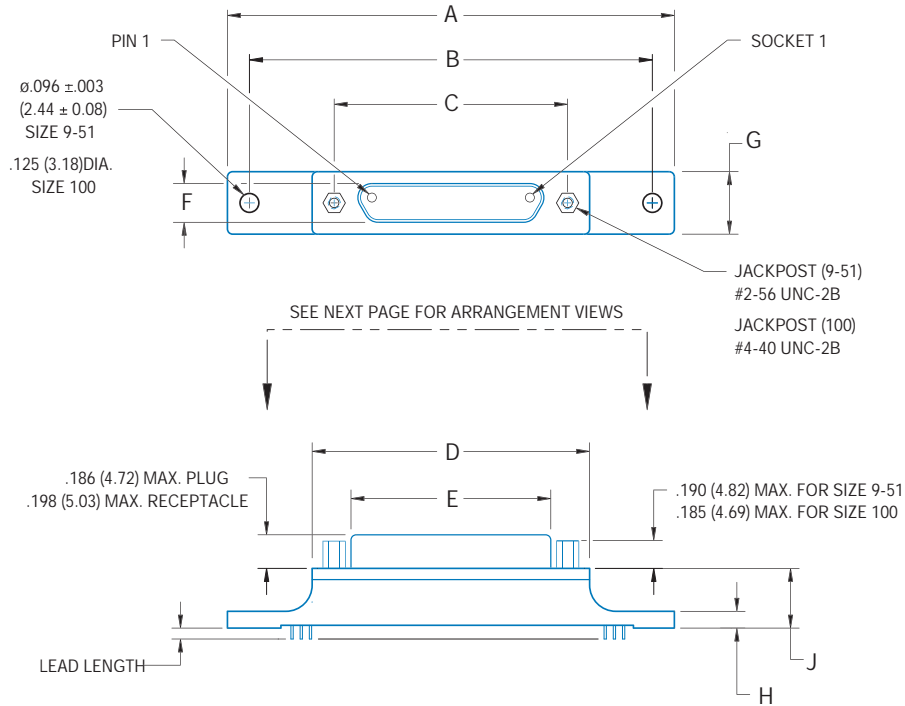
Hardware

P = Jackpost
 Omit for no jackpost

Termination Type

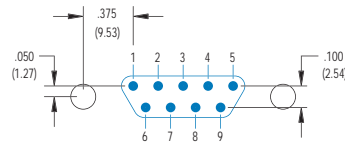
BS = straight PCB termination per
BR = 90° PCB termination per
CBR = narrow 90° PCB termination per
 M83513/22, 23, 24, 25, 26, 27
 M83513/16, 17, 18, 19, 20, 21
 M83513/10, 11, 12, 13, 14, 15

Standard lead termination is #24 AWG, tin plated solid copper, solder dipped
 Consult factory for other wire size terminations

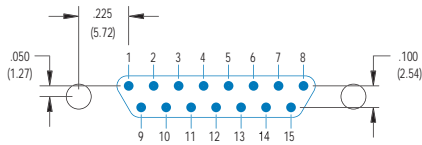


PART NUMBER	A MAX.	B ±.007 (0.18)	C ±.005 (0.13)	D MAX.	E MAX.	F MAX.	G MAX.	H MAX.	J MAX.
100RC09PBS	1.390 (35.31)	1.150 (29.21)	.565 (14.35)	.785 (19.84)	.334 (8.48)	.185 (4.70)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC09SBS	1.390 (35.31)	1.150 (29.21)	.565 (14.35)	.785 (19.84)	.402 (10.21)	.253 (6.43)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC15PBS	1.390 (35.31)	1.150 (29.21)	.715 (18.16)	.935 (23.75)	.484 (12.29)	.185 (4.70)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC15SBS	1.390 (35.31)	1.150 (29.21)	.715 (18.16)	.935 (23.75)	.552 (13.97)	.253 (6.43)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC21PBS	1.690 (43.93)	1.450 (36.83)	.865 (21.97)	1.085 (27.56)	.634 (16.10)	.185 (4.70)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC21SBS	1.690 (43.93)	1.450 (36.83)	.865 (21.97)	1.085 (27.56)	.702 (17.83)	.253 (6.43)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC25PBS	1.740 (44.20)	1.500 (38.10)	.965 (24.51)	1.185 (30.10)	.734 (18.64)	.185 (4.70)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC25SBS	1.740 (44.20)	1.500 (38.10)	.965 (24.51)	1.185 (30.10)	.802 (20.37)	.253 (6.43)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC31PBS	2.040 (51.82)	1.800 (45.72)	1.115 (28.32)	1.335 (33.91)	.884 (22.45)	.185 (4.70)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC31SBS	2.040 (51.82)	1.800 (45.72)	1.115 (28.32)	1.335 (33.91)	.952 (24.18)	.253 (6.43)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC37PBS	2.340 (59.44)	2.100 (53.34)	1.265 (32.13)	1.485 (37.72)	1.034 (26.26)	.185 (4.70)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC37SBS	2.340 (59.44)	2.100 (53.34)	1.265 (32.13)	1.485 (37.72)	1.102 (27.99)	.253 (6.43)	.308 (7.82)	.165 (4.19)	.355 (9.02)
100RC51PBS	2.270 (67.66)	2.000 (50.80)	1.215 (30.86)	1.435 (36.45)	.984 (24.99)	.228 (5.79)	.351 (8.92)	.165 (4.19)	.355 (9.02)
100RC51SBS	2.270 (67.66)	2.000 (50.80)	1.215 (30.86)	1.435 (36.45)	1.052 (26.72)	.296 (7.52)	.351 (8.92)	.165 (4.19)	.355 (9.02)
100RC100PBS	3.070 (77.98)	2.800 (71.12)	1.800 (45.72)	2.170 (55.12)	1.384 (35.15)	.271 (6.88)	.460 (11.68)	.303 (7.70)	.550 (12.70)
100RC100SBS	3.070 (77.98)	2.800 (71.12)	1.800 (45.72)	2.170 (55.12)	1.508 (38.30)	.394 (10.01)	.460 (11.68)	.303 (7.70)	.550 (12.70)

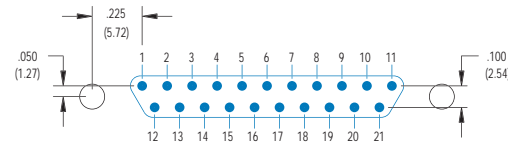
Straight PC configurations for series 100, 101, 102
.100 (2.54) x .100 (2.54) grid pattern, offset .050 (1.27)



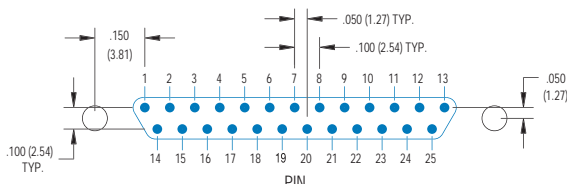
PIN
9 CONTACTS



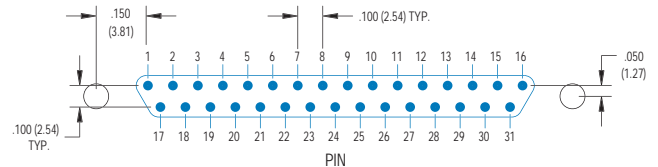
PIN
15 CONTACTS



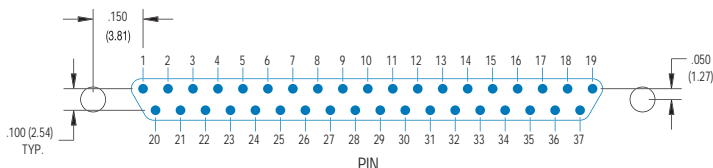
PIN
21 CONTACTS



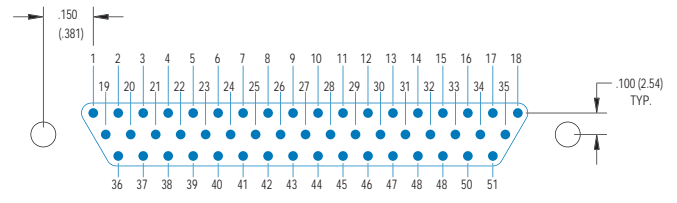
PIN
25 CONTACTS



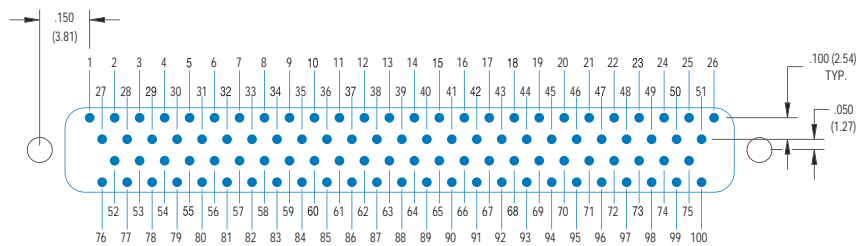
PIN
31 CONTACTS



PIN
37 CONTACTS



PIN
51 CONTACTS

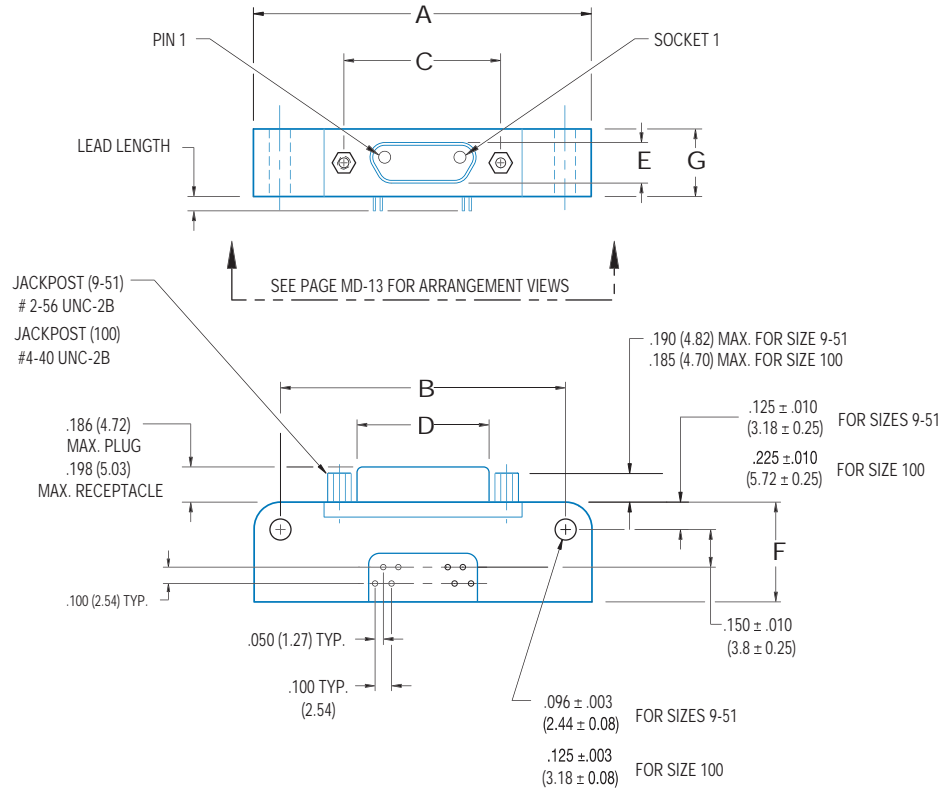


PIN
100 CONTACTS

Arrangement views are from mating face of connector looking onto PCB.

Socket views are mirrored.

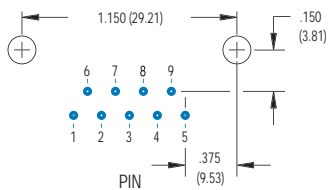
Straight PC configurations for series 100, 101, 102
.100 (2.54) x .100 (2.54) grid pattern, offset .050 (1.27)



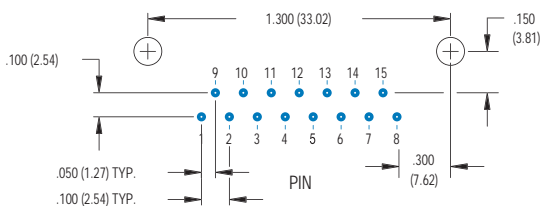
PART NUMBER	A MAX.	B ±.007 (0.18)	C ±.005 (0.13)	D MAX.	E MAX.	F MAX.	G MAX.
100RC09PBR	1.390 (35.31)	1.150 (29.21)	.565 (14.35)	.334 (8.48)	.185 (4.70)	.455 (11.56)	.308 (7.82)
100RC09SBR	1.390 (35.31)	1.150 (29.21)	.565 (14.35)	.402 (10.21)	.253 (6.43)	.455 (11.56)	.308 (7.82)
100RC15PBR	1.540 (39.12)	1.300 (33.02)	.715 (18.16)	.484 (12.29)	.185 (4.70)	.455 (11.56)	.308 (7.82)
100RC15SBR	1.540 (39.12)	1.300 (33.02)	.715 (18.16)	.552 (13.97)	.253 (6.43)	.455 (11.56)	.308 (7.82)
100RC21PBR	1.690 (42.93)	1.450 (36.83)	.865 (21.97)	.634 (16.10)	.185 (4.70)	.455 (11.56)	.308 (7.82)
100RC21SBR	1.690 (42.93)	1.450 (36.83)	.865 (21.97)	.702 (17.83)	.253 (6.43)	.455 (11.56)	.308 (7.82)
100RC25PBR	1.790 (45.47)	1.550 (39.37)	.965 (24.51)	.734 (18.64)	.185 (4.70)	.455 (11.56)	.308 (7.82)
100RC25SBR	1.790 (45.47)	1.550 (39.37)	.965 (24.51)	.802 (20.37)	.253 (6.43)	.455 (11.56)	.308 (7.82)
100RC31PBR	2.040 (51.82)	1.800 (45.72)	1.115 (28.32)	.884 (22.45)	.185 (4.70)	.455 (11.56)	.308 (7.82)
100RC31SBR	2.040 (51.82)	1.800 (45.72)	1.115 (28.32)	.952 (24.18)	.253 (6.43)	.455 (11.56)	.308 (7.82)
100RC37PBR	2.340 (59.40)	2.100 (53.34)	1.265 (32.13)	1.034 (26.26)	.185 (4.70)	.455 (11.56)	.308 (7.82)
100RC37SBR	2.340 (59.40)	2.100 (53.34)	1.265 (32.13)	1.102 (27.99)	.253 (6.43)	.455 (11.56)	.308 (7.82)
100RC51PBR	1.875 (47.63)	1.600 (40.64)	1.125 (30.86)	.984 (24.99)	.228 (5.79)	.565 (14.35)	.351 (8.92)
100RC51SBR	1.875 (47.63)	1.600 (40.64)	1.125 (30.86)	1.052 (26.72)	.296 (7.52)	.565 (14.35)	.351 (8.92)
100RC100PBR	2.780 (70.61)	2.500 (63.50)	1.800 (45.72)	1.386 (35.15)	.271 (6.88)	.765 (19.43)	.394 (10.01)
100RC100SBR	2.780 (70.61)	2.500 (63.50)	1.800 (45.72)	1.508 (38.10)	.394 (10.01)	.765 (19.43)	.394 (10.01)

90° PC configurations for series 100, 101, 102
 .100 (2.54) x .100 (2.54) grid pattern, offset .050 (1.27)

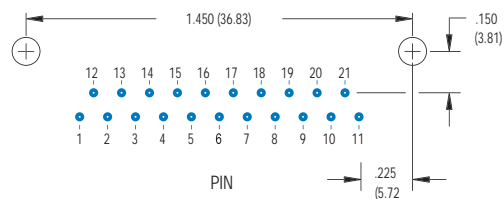
9 CONTACTS



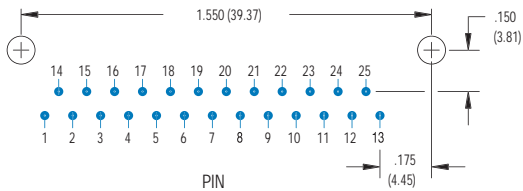
15 CONTACTS



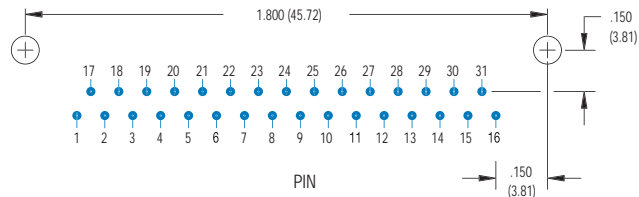
21 CONTACTS



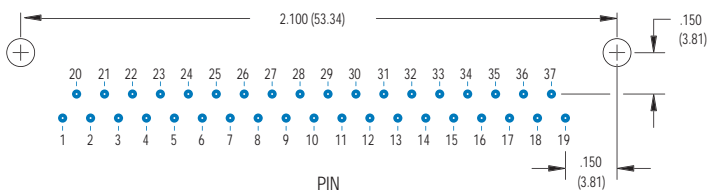
25 CONTACTS



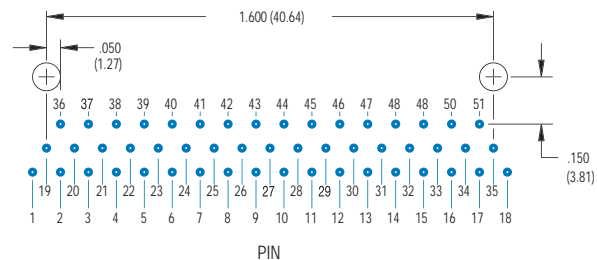
31 CONTACTS



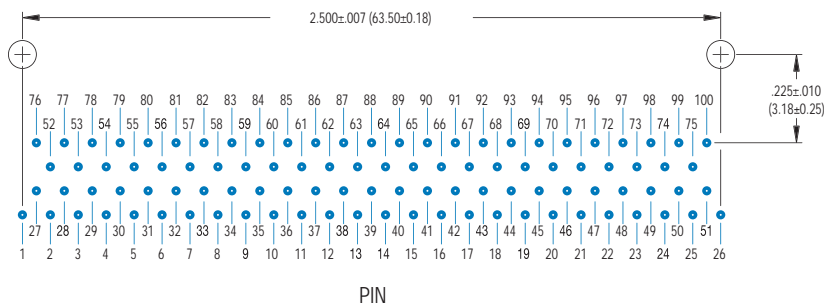
37 CONTACTS



51 CONTACTS

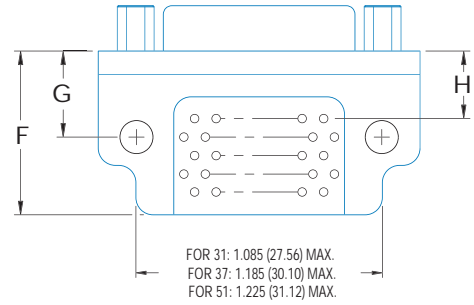
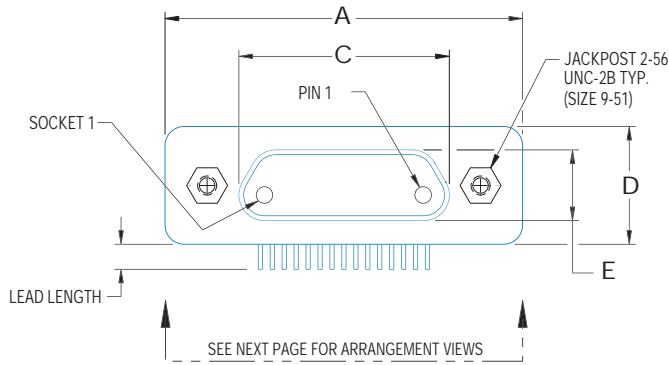


100 CONTACTS

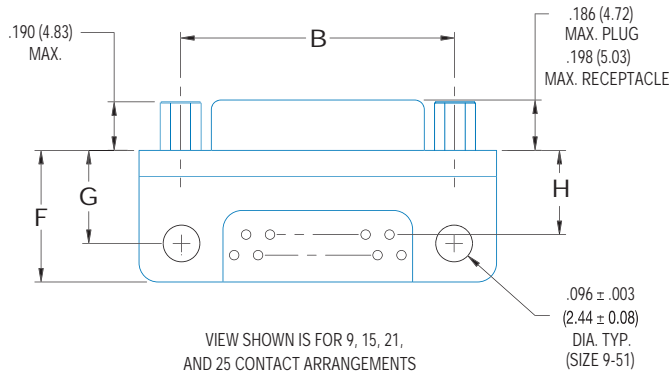


Arrangement views as looking onto mounting surface of connector.
 Socket views are mirrored.

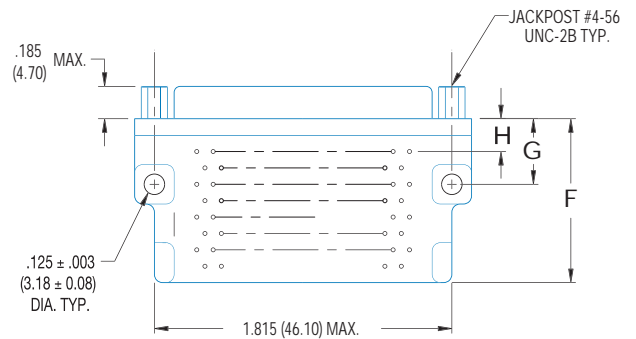
Standard lead termination is #24 AWG, tin plated, solid copper, solder dipped
 Consult factory for other wire size termination



VIEW SHOWN IS FOR 31, 37, AND 51 ARRANGEMENTS



VIEW SHOWN IS FOR 9, 15, 21, AND 25 CONTACT ARRANGEMENTS

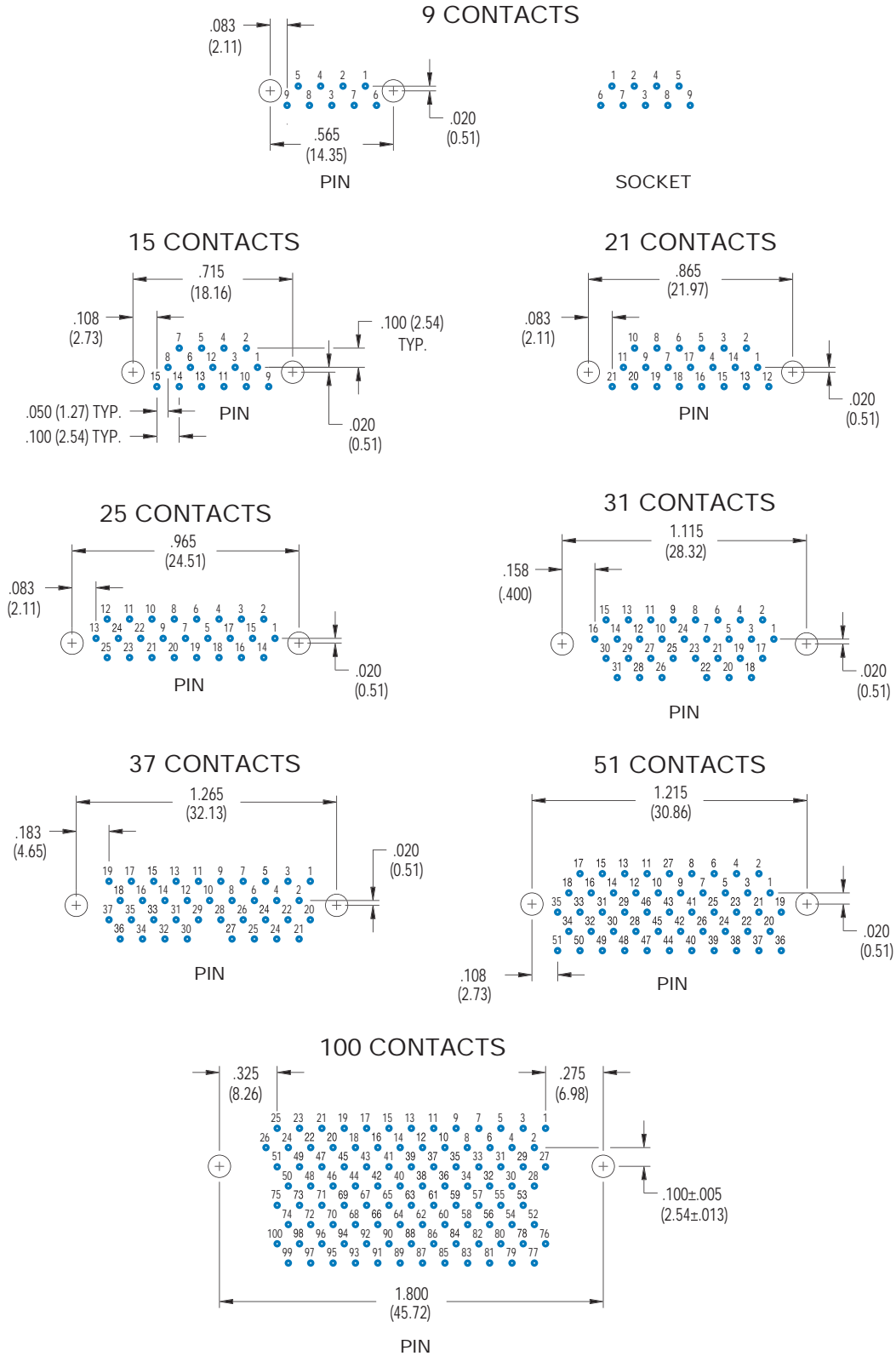


VIEW SHOWN IS FOR 100 ARRANGEMENT

PART NUMBER	A MAX.	B ±.005 (0.13)	C MAX.	D MAX.	E MAX.	F MAX.	G ±.010 (±0.25)	H ±.010 (±0.25)
100RC09PCBR	.785 (19.94)	.565 (14.35)	.334 (8.48)	.308 (7.82)	.185 (4.70)	.420 (10.67)	.250 (6.35)	.230 (5.81)
100RC09SCBR	.785 (19.94)	.565 (14.35)	.402 (10.21)	.308 (7.82)	.253 (6.43)	.420 (10.67)	.250 (6.35)	.230 (5.81)
100RC15PCBR	.935 (23.75)	.715 (18.16)	.484 (12.29)	.308 (7.82)	.185 (4.70)	.420 (10.67)	.250 (6.35)	.130 (3.30)
100RC15SCBR	.935 (23.75)	.715 (18.16)	.552 (13.97)	.308 (7.82)	.253 (6.43)	.420 (10.67)	.250 (6.35)	.130 (3.30)
100RC21PCBR	1.085 (27.56)	.865 (21.97)	.634 (16.10)	.308 (7.82)	.185 (4.70)	.420 (10.67)	.250 (6.35)	.130 (3.30)
100RC21SCBR	1.085 (27.56)	.865 (21.97)	.702 (17.83)	.308 (7.82)	.253 (6.43)	.420 (10.67)	.250 (6.35)	.130 (3.30)
100RC25PCBR	1.185 (30.10)	.965 (24.51)	.734 (18.64)	.308 (7.82)	.185 (4.70)	.420 (10.67)	.250 (6.35)	.130 (3.30)
100RC25SCBR	1.185 (30.10)	.965 (24.51)	.802 (20.37)	.308 (7.82)	.253 (6.43)	.420 (10.67)	.250 (6.35)	.130 (3.30)
100RC31PCBR	1.335 (33.91)	1.115 (28.32)	.884 (22.45)	.308 (7.82)	.185 (4.70)	.520 (13.21)	.250 (6.35)	.130 (3.30)
100RC31SCBR	1.335 (33.91)	1.115 (28.32)	.952 (24.18)	.308 (7.82)	.253 (6.43)	.520 (13.21)	.250 (6.35)	.130 (3.30)
100RC37PCBR	1.485 (37.72)	1.265 (32.13)	1.034 (26.26)	.308 (7.82)	.185 (4.70)	.520 (13.21)	.250 (6.35)	.130 (3.30)
100RC37SCBR	1.485 (37.72)	1.265 (32.13)	1.102 (27.99)	.308 (7.82)	.253 (6.43)	.520 (13.21)	.250 (6.35)	.130 (3.30)
100RC51PCBR	1.435 (36.45)	1.215 (30.86)	.984 (24.99)	.351 (8.92)	.228 (5.79)	.650 (16.15)	.300 (7.62)	.150 (3.81)
100RC51SCBR	1.435 (36.45)	1.215 (30.86)	1.052 (26.72)	.351 (8.92)	.296 (7.52)	.650 (16.15)	.300 (7.62)	.150 (3.81)
100RC100PCBR	2.170 (55.12)	1.800 (45.72)	1.384 (35.15)	.394 (10.01)	.271 (6.88)	1.000 (25.40)	.400 (10.16)	.200 (5.08)
100RC100SCBR	2.170 (55.12)	1.800 (45.72)	1.508 (38.10)	.394 (10.01)	.394 (10.01)	1.000 (25.40)	.400 (10.16)	.200 (5.08)

INCHES (MM)

90° narrow profile PC terminations for series 100, 101, 102
 .100 (2.54) x .100 (2.54) grid pattern, offset .050 (1.27)



Arrangement views as looking onto mounting surface of connector.
 Socket views are mirrored.

ORDERING INFORMATION

Series 101 Connectors

Qualified to MIL-C-83513/06, 07, 08, 09 • Available in sizes 9 to 51 • Solder cup or wire termination

101 R XXX X - X X X XXX XX - XX

Connector Series

101 = All plastic shell
per MIL-C-83513

Insulator Material

R = Polyphenylene Sulfide

Connector Size

(Number Of Contacts)
09, 15, 21, 25, 31, 37, 51

Connector Type

P = Plug
S = Receptacle

Wire Size (AWG.)

1 = 32
2 = 30
3 = 28
4 = 26 (standard) *off shelf
5 = 25 (standard for solid uninsulated wire)
6 = 24
Omit for solder cup contacts

Wire Type

A = 7 STRD, per NEMA-HP3 (MIL-W-16878/4)
B = 7 STRD, per NEMA-HP3 (MIL-W-16878/4)
C = 19 STRD, per NEMA-HP3 (MIL-W-16878/4)
D = 19 STRD, per NEMA-HP3 (MIL-W-16878/4)
E = per MIL-W-22759/11
F = per MIL-W-22759/33
L = Solid uninsulated
Omit for solder cup contacts

Non Std. Wire Length (Inches)

Hardware

B = Standard mounting holes
L = Captive low profile jackscrew
K = Captive high profile jackscrew
F = Standard float mount
R = Reverse float mount
M2 = Low profile jackscrew, allen head
M3 = High profile jackscrew, allen head
M5 = Low profile jackscrew, slot head
M6 = High profile jackscrew, slot head
P = Jackpost

Wire Length

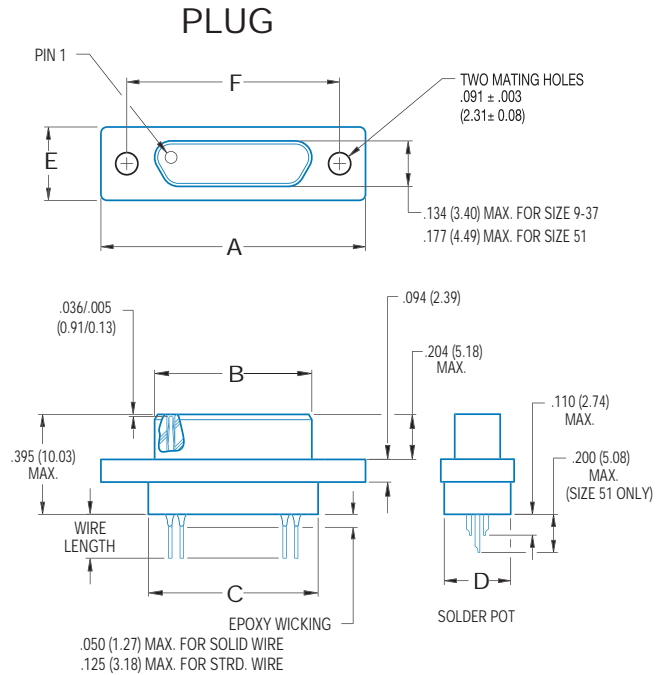
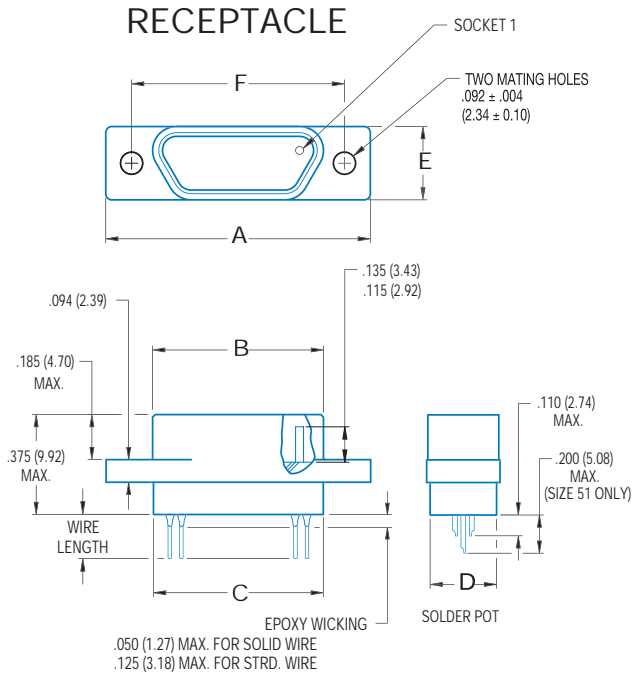
A = 18.00
B = 36.00
C = 72.00
D = 0.500
E = 1.00
Omit for solder cup contacts

Wire Colour / Finish

1 = All White
2 = All Yellow
3 = Solid uninsulated, tin plated
4 = Solid uninsulated, gold plated
5 = Color coded per MIL-STD-681, System 1
6 = 1st 10 colors blk. thru wht. repeated
7 = 1st 15 colors blk. thru wht./yel. repeated
Omit for solder cup contacts

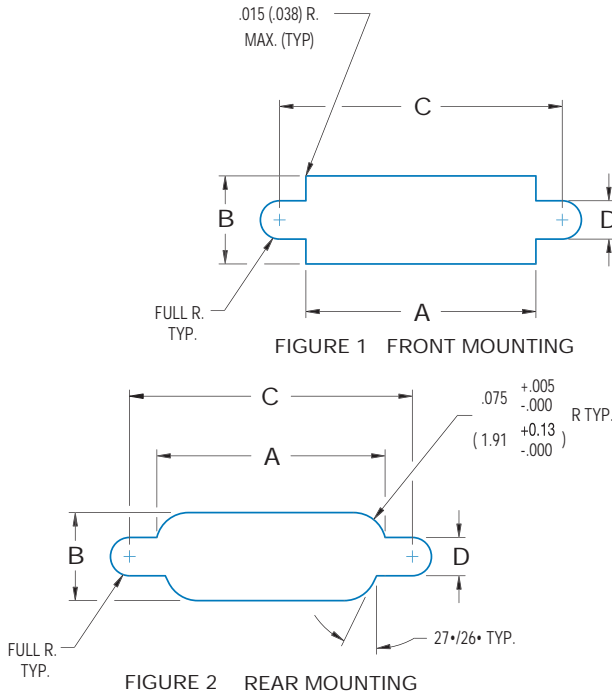
Qualified to MIL-C-83513/06, 07, 08, 09

Connector sizes 9 thru 51



PART NUMBER	A MAX.	B MAX.	C MAX.	D MAX.	E MAX.	F ±.005 (±0.13)
101R09P	.788 (20.02)	.292 (7.42)	.408 (10.36)	.173 (4.39)	.218 (5.54)	.565 (14.35)
101R09S	.788 (20.02)	.380 (9.65)	.408 (10.36)	.173 (4.39)	.218 (5.54)	.565 (14.35)
101R15P	.938 (23.82)	.442 (11.23)	.588 (14.17)	.173 (4.39)	.218 (5.54)	.715 (18.16)
101R15S	.938 (23.82)	.530 (13.46)	.588 (14.17)	.173 (4.39)	.218 (5.54)	.715 (18.16)
101R21P	1.088 (27.64)	.592 (15.04)	.708 (17.98)	.173 (4.39)	.218 (5.54)	.865 (21.97)
101R21S	1.088 (27.64)	.680 (17.27)	.708 (17.98)	.173 (4.39)	.218 (5.54)	.865 (21.97)
101R25P	1.188 (30.18)	.692 (17.58)	.808 (20.56)	.173 (4.39)	.218 (5.54)	.965 (24.51)
101R25S	1.188 (30.18)	.780 (19.81)	.808 (20.56)	.173 (4.39)	.218 (5.54)	.965 (24.51)
101R31P	1.338 (33.98)	.842 (21.39)	.958 (24.33)	.173 (4.39)	.218 (5.54)	1.115 (28.32)
101R31S	1.338 (33.98)	.930 (23.62)	.958 (24.33)	.173 (4.39)	.218 (5.54)	1.115 (28.32)
101R37P	1.488 (37.80)	.992 (25.20)	1.108 (28.14)	.173 (4.39)	.218 (5.54)	1.265 (32.13)
101R37S	1.488 (37.80)	1.080 (27.43)	1.108 (28.14)	.173 (4.39)	.218 (5.54)	1.265 (32.13)
101R51P	1.438 (36.52)	.942 (23.93)	1.058 (26.87)	.220 (5.59)	.260 (6.60)	1.215 (30.86)
101R51S	1.438 (36.52)	1.030 (26.16)	1.058 (26.87)	.220 (5.59)	.260 (6.60)	1.215 (30.86)

Connector sizes 9 thru 51



SIZE	CUTOUT FIGURE	A +.004 (0.10) -.000 (0.00)	B +.004 (0.10) -.000 (0.00)	C +.005 (0.13) -.000 (0.00)	D +.005 (0.13) -.000 (0.00)
9	1	.408 (10.36)	.172 (4.37)	.570 (14.48)	.089 (2.26)
	2	.378 (9.60)	.217 (5.51)	.570 (14.48)	.089 (2.26)
15	1	.588 (14.94)	.172 (4.37)	.720 (18.29)	.089 (2.26)
	2	.528 (13.41)	.217 (5.51)	.720 (18.29)	.089 (2.26)
21	1	.708 (17.98)	.172 (4.37)	.870 (22.10)	.089 (2.26)
	2	.678 (17.22)	.217 (5.51)	.870 (22.10)	.089 (2.26)
25	1	.808 (20.52)	.172 (4.37)	.970 (24.64)	.089 (2.26)
	2	.778 (19.76)	.217 (5.51)	.970 (24.64)	.089 (2.26)
31	1	.958 (24.33)	.172 (4.37)	1.120 (28.45)	.089 (2.26)
	2	.928 (23.57)	.217 (5.51)	1.120 (28.45)	.089 (2.26)
37	1	1.108 (28.14)	.172 (4.37)	1.270 (32.26)	.089 (2.26)
	2	1.078 (27.38)	.217 (5.51)	1.270 (32.26)	.089 (2.26)
51	1	1.058 (26.87)	.215 (5.46)	1.220 (30.99)	.089 (2.26)
	2	1.028 (26.11)	.261 (6.63)	1.220 (30.99)	.089 (2.26)

Micro D Plastic Connector PCB Termination

ORDERING INFORMATION

PCB Termination Series 101 Connectors

Straight and right angle • Connector sizes 9 thru 51

101 R XX X BR X X X - XXX

Connector Series

101 = All plastic shell per MIL-C-83513

R = Polyphenylene Sulfide

Insulator Material

R = Polyphenylene Sulfide

Connector Size

(Number Of Contacts)

09, 15, 21, 25, 31, 37, 51

Connector Type

P = Plug

S = Receptacle

Non Std. Wire Length (Inches)
(EX = .125)

Lead Length

1 = .109 ± .015

2 = .140 ± .015

3 = .172 ± .015

4 = .250 ± .015

Threaded Insert

T = Threaded Insert

Omit for no threaded insert

Hardware

P = Jackpost

Omit for no jackpost

Termination Type

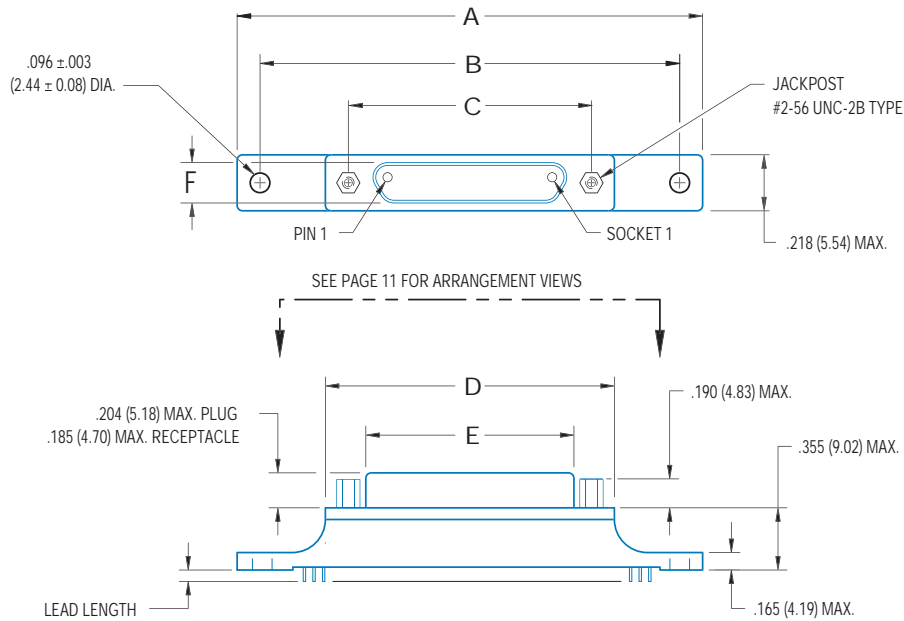
BS = Straight PCB termination per

BR = 90° PCB termination per

CBR = Narrow 90° PCB termination per

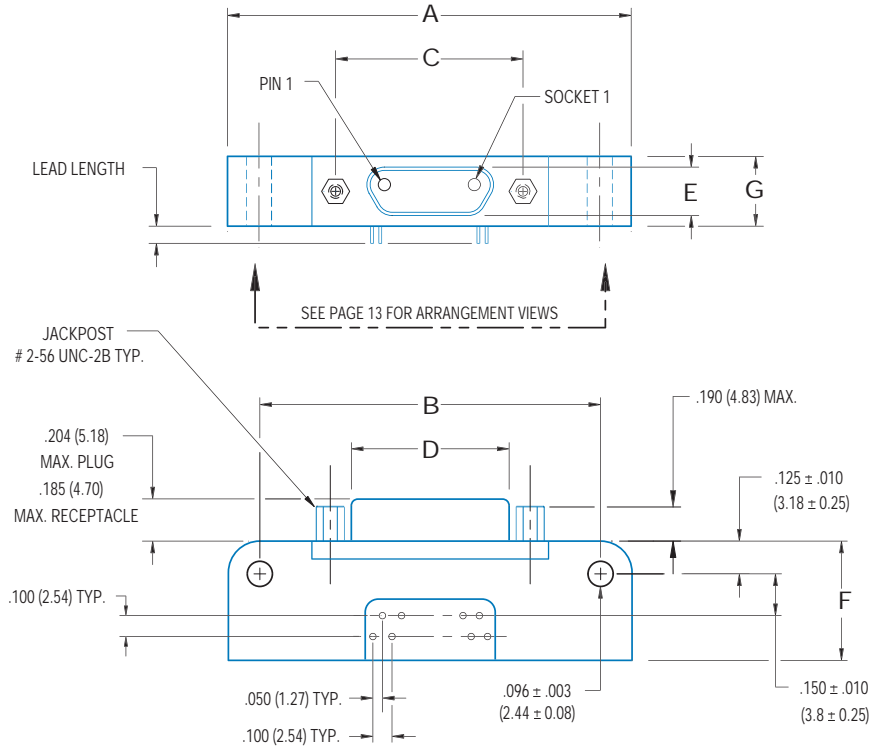
INCHES (MM)

Standard lead termination is #24 AWG, tin plated, solid copper, solder dipped
 Consult factory for other wire size terminations • Sizes 9 thru 37



PART NUMBER	A MAX.	B $\pm .007$ (0.18)	C $\pm .005$ (0.13)	D MAX.	E MAX.	F MAX.
101R09P	1.390 (35.31)	1.150 (29.21)	.565 (14.35)	.788 (20.02)	.292 (7.42)	.134 (3.40)
101R09S	1.390 (35.31)	1.150 (29.21)	.565 (14.35)	.788 (20.02)	.380 (9.65)	.218 (5.54)
101R15P	1.390 (35.31)	1.150 (29.21)	.715 (18.16)	.938 (23.82)	.442 (11.23)	.134 (3.40)
101R15S	1.390 (35.31)	1.150 (29.21)	.715 (18.16)	.938 (23.82)	.530 (13.46)	.218 (5.54)
101R21P	1.690 (43.93)	1.450 (36.83)	.865 (21.97)	1.088 (27.64)	.592 (15.04)	.134 (3.40)
101R21S	1.690 (43.93)	1.450 (36.83)	.865 (21.97)	1.088 (27.64)	.680 (17.27)	.218 (5.54)
101R25P	1.740 (44.20)	1.500 (38.10)	.965 (24.51)	1.188 (30.18)	.692 (17.58)	.134 (3.40)
101R25S	1.740 (44.20)	1.500 (38.10)	.965 (24.51)	1.188 (30.18)	.780 (19.81)	.218 (5.54)
101R31P	2.040 (51.82)	1.800 (45.72)	1.115 (28.32)	1.338 (33.98)	.842 (21.39)	.134 (3.40)
101R31S	2.040 (51.82)	1.800 (45.72)	1.115 (28.32)	1.338 (33.98)	.930 (23.62)	.218 (5.54)
101R37P	2.340 (59.44)	2.100 (53.34)	1.265 (32.13)	1.488 (37.80)	.992 (25.20)	.134 (3.40)
101R37S	2.340 (59.44)	2.100 (53.34)	1.265 (32.13)	1.488 (37.80)	1.080 (27.43)	.218 (5.54)

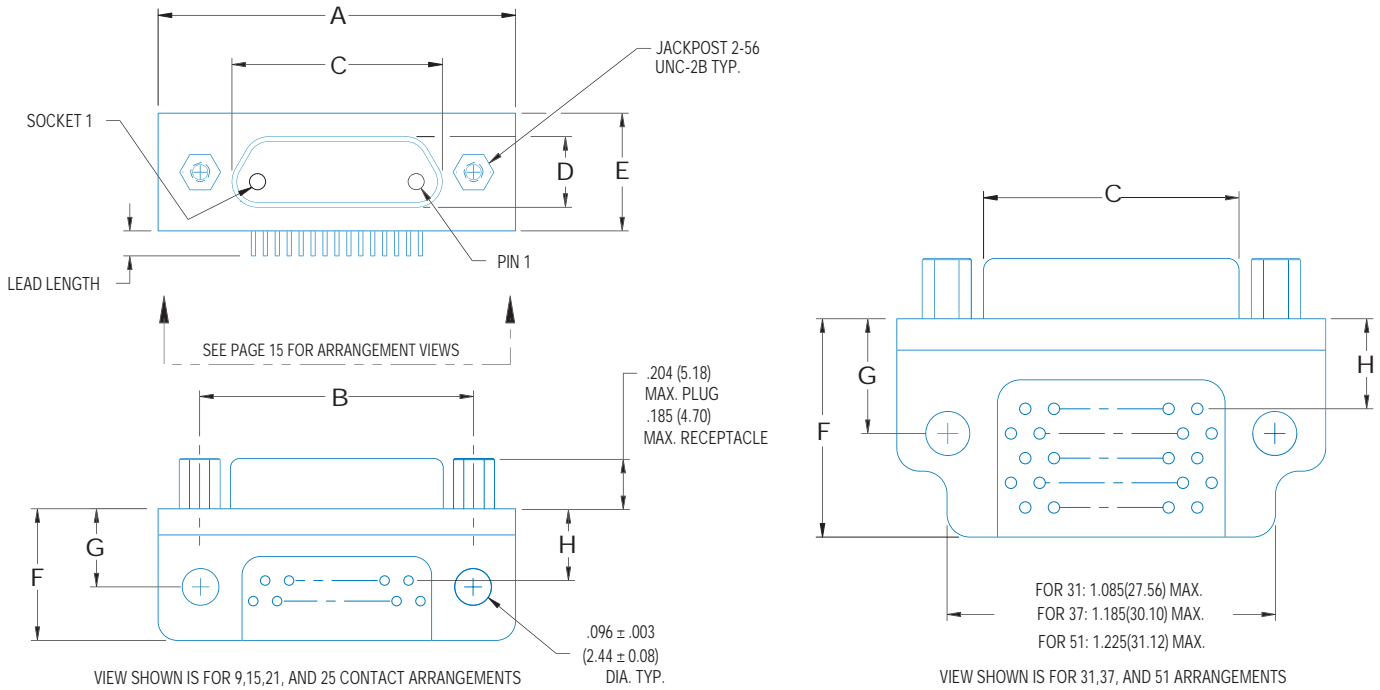
Standard lead termination is #24 AWG, tin plated, solid copper, solder dipped
 Consult factory for other wire size terminations • Sizes 9 thru 51



PART NUMBER	A MAX.	B ±.007 (0.18)	C ±.005 (0.13)	D MAX.	E MAX.	F MAX.	G MAX.
101R09PBR	1.390 (35.31)	1.150 (29.21)	.565 (14.35)	.292 (7.42)	.134 (3.35)	.455 (11.56)	.218 (5.54)
101R09SBR	1.390 (35.31)	1.150 (29.21)	.565 (14.35)	.380 (9.65)	.218 (5.54)	.455 (11.56)	.218 (5.54)
101R15PBR	1.540 (39.12)	1.300 (33.02)	.715 (18.16)	.442 (11.23)	.134 (3.35)	.455 (11.56)	.218 (5.54)
101R15SBR	1.540 (39.12)	1.300 (33.02)	.715 (18.16)	.530 (13.46)	.218 (5.54)	.455 (11.56)	.218 (5.54)
101R21PBR	1.690 (42.93)	1.450 (36.83)	.865 (21.97)	.592 (15.04)	.134 (3.35)	.455 (11.56)	.218 (5.54)
101R21SBR	1.690 (42.93)	1.450 (36.83)	.865 (21.97)	.680 (17.27)	.218 (5.54)	.455 (11.56)	.218 (5.54)
101R25PBR	1.790 (45.47)	1.550 (39.37)	.965 (24.51)	.692 (17.58)	.134 (3.35)	.455 (11.56)	.218 (5.54)
101R25SBR	1.790 (45.47)	1.550 (39.37)	.965 (24.51)	.780 (19.81)	.218 (5.54)	.455 (11.56)	.218 (5.54)
101R31PBR	2.040 (51.82)	1.800 (45.72)	1.115 (28.32)	.842 (21.39)	.134 (3.35)	.455 (11.56)	.218 (5.54)
101R31SBR	2.040 (51.82)	1.800 (45.72)	1.115 (28.32)	.930 (23.62)	.218 (5.54)	.455 (11.56)	.218 (5.54)
101R37PBR	2.340 (59.44)	2.100 (53.34)	1.265 (32.13)	.992 (25.20)	.134 (3.35)	.455 (11.56)	.218 (5.54)
101R37SBR	2.340 (59.44)	2.100 (53.34)	1.265 (32.13)	1.080 (27.43)	.218 (5.54)	.455 (11.56)	.218 (5.54)
101R51PBR	1.875 (47.63)	1.600 (40.64)	1.215 (30.86)	.942 (23.93)	.177 (4.50)	.565 (14.35)	.260 (6.60)
101R51SBR	1.875 (47.63)	1.600 (40.64)	1.215 (30.86)	1.030 (26.16)	.260 (6.60)	.565 (14.35)	.260 (6.60)

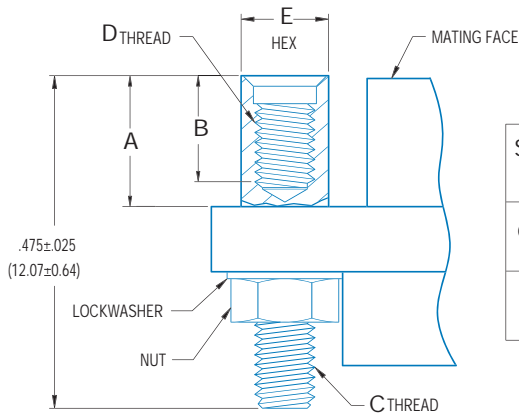
Standard lead termination is #24 AWG, tin plated, solid copper, solder dipped

Consult factory for other wire size terminations • Sizes 9 thru 51



PART NUMBER	A MAX.	B ±.005 (0.13)	C MAX.	D MAX.	E MAX.	F MAX.	G ±.010 (±0.25)	H ±.010 (±0.25)
101R09PCBR	.788 (20.02)	.565 (14.35)	.292 (7.42)	.134 (3.35)	.218 (5.54)	.420 (10.67)	.250 (6.35)	.230 (5.81)
101R09SCBR	.788 (20.02)	.565 (14.35)	.380 (9.65)	.218 (5.54)	.218 (5.54)	.420 (10.67)	.250 (6.35)	.230 (5.81)
101R15PCBR	.938 (23.82)	.715 (18.16)	.442 (11.23)	.134 (3.35)	.218 (5.54)	.420 (10.67)	.250 (6.35)	.130 (3.30)
101R15SCBR	.938 (23.82)	.715 (18.16)	.530 (13.46)	.218 (5.54)	.218 (5.54)	.420 (10.67)	.250 (6.35)	.130 (3.30)
101R21PCBR	1.088 (27.64)	.865 (21.97)	.592 (15.04)	.134 (3.35)	.218 (5.54)	.420 (10.67)	.250 (6.35)	.130 (3.30)
101R21SCBR	1.088 (27.64)	.865 (21.97)	.680 (17.27)	.218 (5.54)	.218 (5.54)	.420 (10.67)	.250 (6.35)	.130 (3.30)
101R25PCBR	1.188 (30.18)	.965 (24.51)	.692 (17.58)	.134 (3.35)	.218 (5.54)	.420 (10.67)	.250 (6.35)	.130 (3.30)
101R25SCBR	1.188 (30.18)	.965 (24.51)	.780 (19.81)	.218 (5.54)	.218 (5.54)	.420 (10.67)	.250 (6.35)	.130 (3.30)
101R31PCBR	1.338 (33.98)	1.115 (28.32)	.842 (21.39)	.134 (3.35)	.218 (5.54)	.520 (13.21)	.250 (6.35)	.130 (3.30)
101R31SCBR	1.338 (33.98)	1.115 (28.32)	.930 (23.62)	.218 (5.54)	.218 (5.54)	.520 (13.21)	.250 (6.35)	.130 (3.30)
101R37PCBR	1.488 (37.80)	1.265 (32.13)	.992 (25.20)	.134 (3.35)	.218 (5.54)	.520 (13.21)	.250 (6.35)	.130 (3.30)
101R37SCBR	1.488 (37.80)	1.265 (32.13)	1.080 (27.43)	.218 (5.54)	.218 (5.54)	.520 (13.21)	.250 (6.35)	.130 (3.30)
101R51PCBR	1.438 (36.52)	1.215 (30.86)	.942 (23.93)	.177 (4.50)	.260 (6.60)	.650 (16.15)	.300 (7.62)	.150 (3.81)
101R51SCBR	1.438 (36.52)	1.215 (30.86)	1.030 (26.16)	.260 (6.60)	.260 (6.60)	.650 (16.15)	.300 (7.62)	.150 (3.81)

Qualified to MIL-C-83513/05



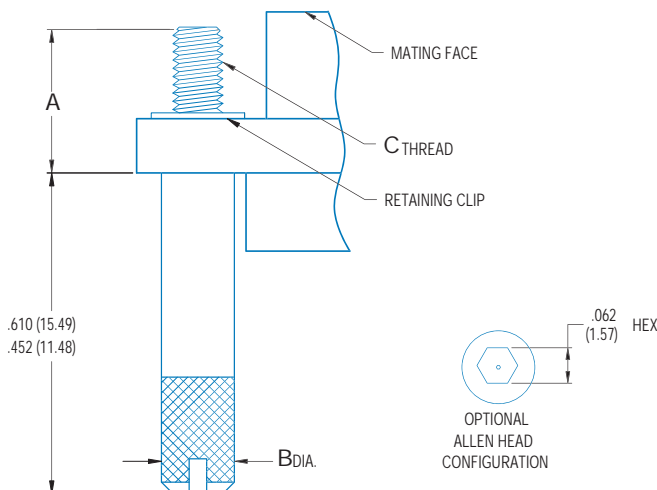
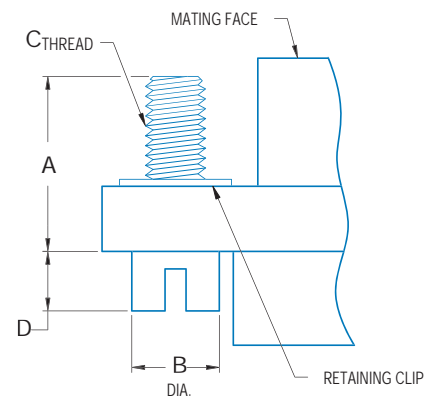
JACKPOST ASSEMBLY

SHELL SIZE	PART # CODE	SPECIFICATION NUMBER	A	B MIN.	C THREAD	D THREAD	E HEX
9-51	P	M83513/05-07	.190/.185 (4.83/4.70)	.155 (3.94)	#2-56 UNC-2A	#2-56 UNC-2B	.125 (3.18)
100	P	M83513/05-17	.185/.180 (4.70/4.58)	.170 (4.32)	#4-40 UNC-2A	#4-40 UNC-2B	.187 (4.75)

LOW PROFILE JACKSCREW

(AVAILABLE IN SLOT HEAD AND ALLEN HEAD CONFIGURATIONS)

SHELL SIZE	PART # CODE	SPECIFICATION NUMBER	A	B	C THREAD	D
9-51	M5	M83513/05-05 (SLOT HEAD)	.258/.235 (6.55/5.97)	.125 (3.18)	#2-56 UNC-2A	.103/.070 (2.62/1.78)
	M3	M83513/05-02 (ALLEN HEAD)	.258/.235 (6.55/5.97)	.125 (3.18)	#2-56 UNC-2A	.103/.070 (2.62/1.78)
100	M5	M83513/05-15 (SLOT HEAD)	.287±.005 (7.29±0.13)	.187 (4.75)	#4-40 UNC-2A	.098 (2.49)
	M3	M83513/05-12 (ALLEN HEAD)	.287±.005 (7.29±0.13)	.187 (4.75)	#4-40 UNC-2A	.098 (2.49)

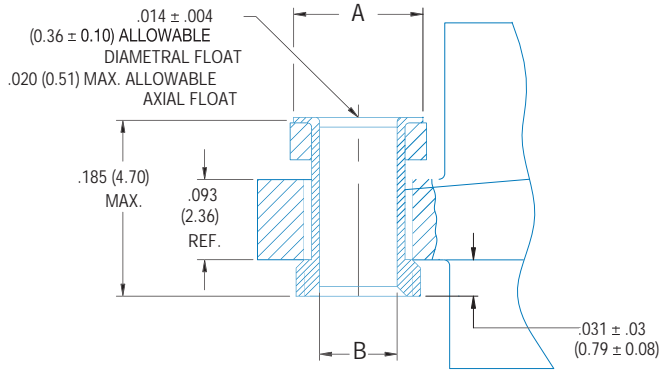


HIGH PROFILE JACKSCREW

(AVAILABLE IN SLOT HEAD AND ALLEN HEAD CONFIGURATIONS)

SHELL SIZE	PART # CODE	SPECIFICATION NUMBER	A	B	C THREAD
9-51	M6	M83513/05-06 (SLOT HEAD)	.258/.235 (6.55/5.97)	.125 (3.18)	#2-56 UNC-2A
	M3	M83513/05-03 (ALLEN HEAD)	.258/.235 (6.55/5.97)	.125 (3.18)	#2-56 UNC-2A
100	M6	M83513/05-16 (SLOT HEAD)	.287±.005 (7.29±0.13)	.187 (4.75)	#4-40 UNC-2A
	M3	M83513/05-13 (ALLEN HEAD)	.287±.005 (7.29±0.13)	.187 (4.75)	#4-40 UNC-2A

INCHES (MM)

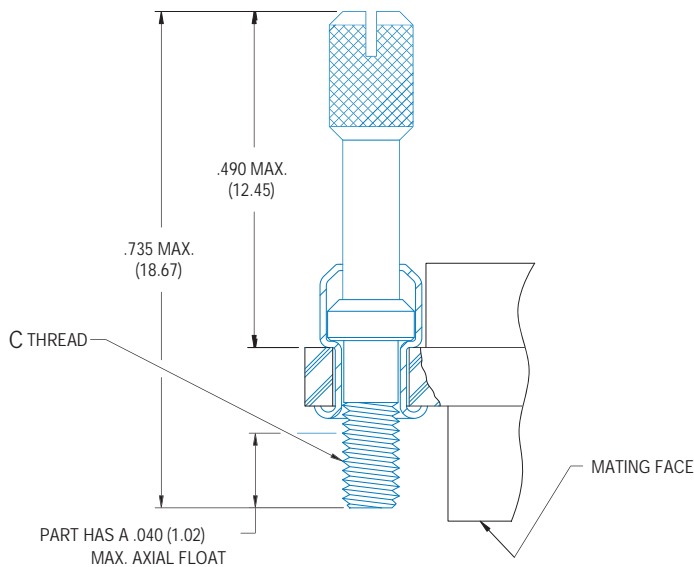
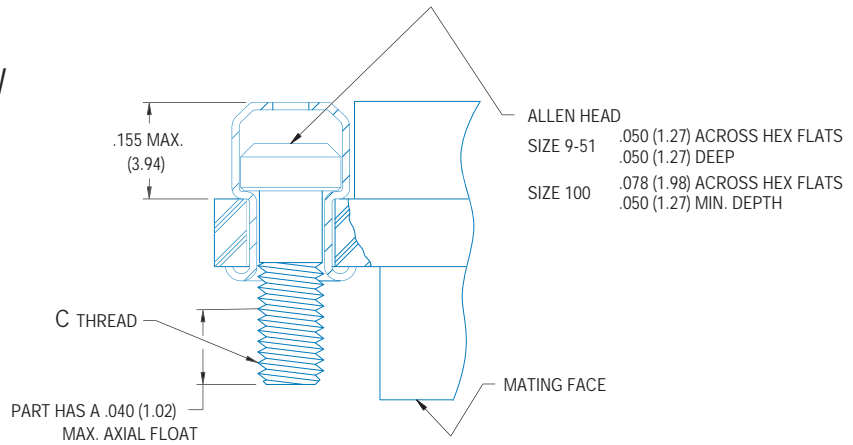


FLOAT MOUNT

SHELL SIZE	PART # CODE	A DIA.	B DIA.
9-51	F	.150±.003 (3.81±.076)	.090±.0015 (2.99±0.038)
100	F	.174±.005 (4.40±0.13)	.116±.002 (2.95±.051)

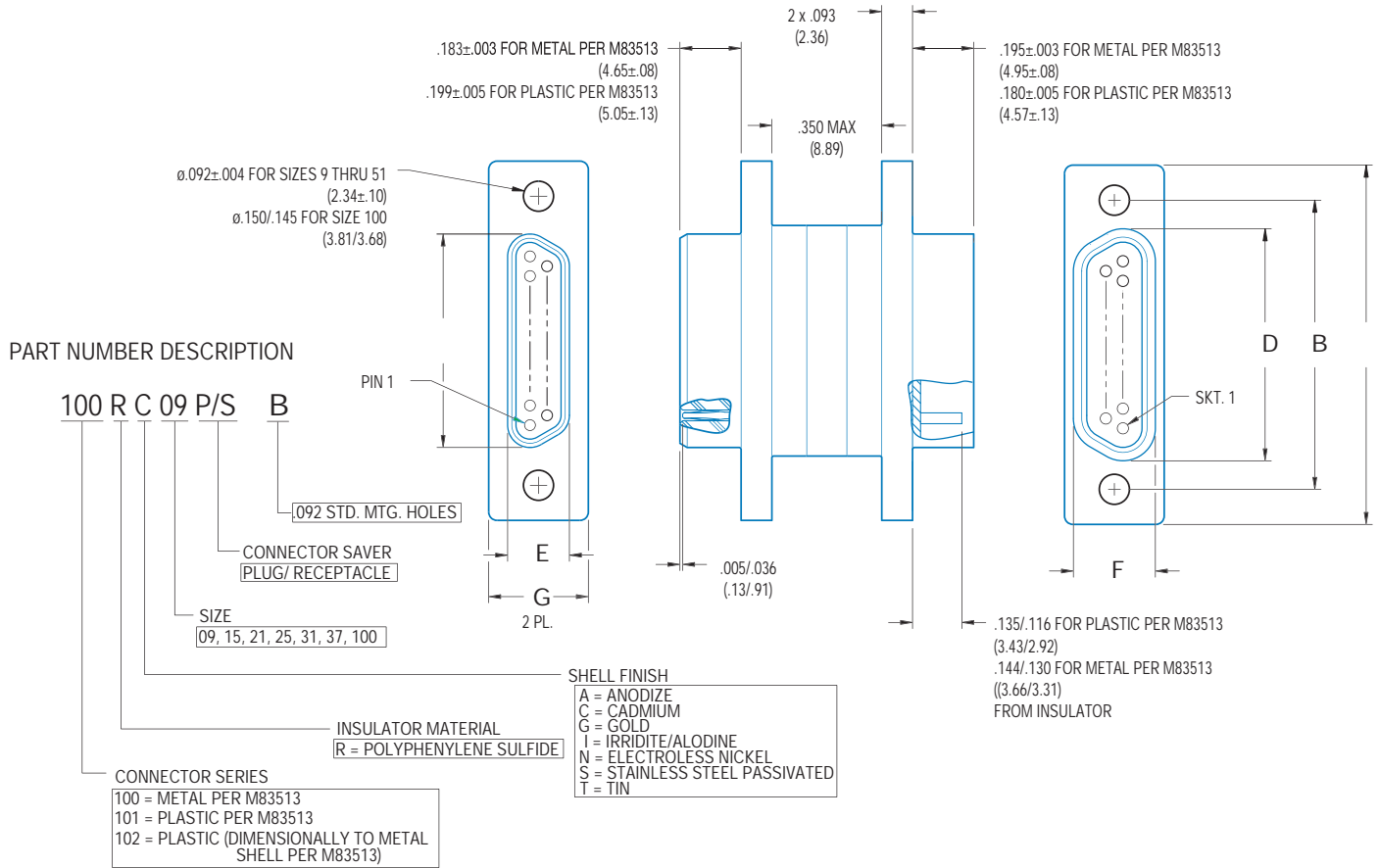
LOW PROFILE JACKSCREW
(AVAILABLE IN ALLEN HEAD CONFIGURATION)

SHELL SIZE	PART # CODE	C THREAD
9-51	L	#2-56 UNC-2A
100	L	#4-40 UNC-2A



HIGH PROFILE JACKSCREW
(AVAILABLE IN SLOT HEAD CONFIGURATION)

SHELL SIZE	PART # CODE	C THREAD
9-51	K	#2-56 UNC-2A
100	K	#4-40 UNC-2A



PART NUMBER	A MAX.	B ±.005	C MAX.	D MAX.	E MAX.	F MAX.	G MAX.
100R*09P/S	.785 (19.94)	.565 (14.35)	.334 (8.48)	.402 (10.21)	.185 (4.70)	.253 (6.43)	.308 (7.82)
100R*15P/S	.935 (23.75)	.715 (18.16)	.484 (12.29)	.552 (13.97)	.185 (4.70)	.253 (6.43)	.308 (7.82)
100R*21P/S	1.085 (27.56)	.865 (21.97)	.634 (16.10)	.702 (17.83)	.185 (4.70)	.253 (6.43)	.308 (7.82)
100R*25P/S	1.185 (30.10)	.965 (24.51)	.734 (18.64)	.802 (20.37)	.185 (4.70)	.253 (6.43)	.308 (7.82)
100R*31P/S	1.335 (33.91)	1.115 (28.32)	.884 (22.45)	.952 (24.18)	.185 (4.70)	.253 (6.43)	.308 (7.82)
100R*37P/S	1.485 (37.72)	1.265 (32.13)	1.034 (26.26)	1.102 (27.99)	.185 (4.70)	.253 (6.43)	.308 (7.82)
100R*51P/S	1.435 (36.45)	1.215 (30.86)	.984 (24.99)	1.052 (26.72)	.228 (5.79)	.296 (7.52)	.351 (8.92)
100R*100P/S	2.170 (55.12)	1.800 (45.72)	1.384 (35.13)	1.508 (38.10)	.271 (6.88)	.394 (10.01)	.394 (10.01)
101R09P/S	.788 (20.02)	.565 (14.35)	.292 (7.42)	.380 (9.65)	.134 (3.40)	.218 (5.54)	.218 (5.54)
101R15P/S	.938 (23.82)	.715 (18.16)	.442 (11.23)	.530 (13.46)	.134 (3.40)	.218 (5.54)	.218 (5.54)
101R21P/S	1.088 (27.64)	.865 (21.97)	.592 (15.04)	.680 (17.27)	.134 (3.40)	.218 (5.54)	.218 (5.54)
101R25P/S	1.188 (30.18)	.965 (24.51)	.692 (17.58)	.780 (19.81)	.134 (3.40)	.218 (5.54)	.218 (5.54)
101R31P/S	1.338 (33.98)	1.115 (28.32)	.842 (21.39)	.930 (23.62)	.134 (3.40)	.218 (5.54)	.218 (5.54)
101R37P/S	1.488 (37.80)	1.265 (32.13)	.992 (25.20)	1.080 (27.43)	.134 (3.40)	.218 (5.54)	.218 (5.54)
101R51P/S	1.438 (36.52)	1.215 (30.86)	.942 (23.93)	1.030 (26.16)	.177 (4.49)	.260 (6.60)	.260 (6.60)

INCHES (MM)

The Amphenol Microminiature Strip connector 105 series offers proven Mil Spec performance and reliability in single row strip line configurations. Microminiature strip connectors are available in many combinations of length, terminations and mounting features. The Amphenol Microminiature strip connector employs a custom stamped and formed Pin Contact recessed within the insulator. The socket contact is a precision fabricated tube. Pin and socket contacts are epoxy retained in hi grade thermoplastic insulators. The contact system has proven reliability, exceeding the performance specifications of Mil-DTL-83513. Strip line connectors can be provided with many wire types and gages (24-32), or can be supplied with solder cups for customer provided termination to wire. Special termination with hookup wire is available to meet specific customer requirements. Dual row configurations can also be provided. Right angle thru hole and surface mount horizontal versions are also available.



SPECIFICATIONS:

MATERIALS

Insulator	Polyphenylene Sulfide
Contacts	Copper Alloy, Gold Plate
Guidepin	300 Series Stainless Steel

MECHANICAL FEATURES

One Piece Insulator	60 Contacts max.
Wire Size	Solid: #24 thru #30 AWG Stranded: #26 thru #30 AWG
Coupling	Friction
Polarization	Guide Pins
Contact Spacing	.050" (1.27) Centers

ORDERING INFORMATION

Strip Series 105 Connectors

105 R XXX X - X X X - XXX XX XX

Connector Series
105 = Strip Connector

Insulator Material
R = Polyphenylene Sulfide N = Nylon
P = Polyester

Connector Size
Number of contacts

Connector Type
P = Plug S = Receptacle

Wire Size (Awg.)
1 = 32 2 = 30 3 = 28 4 = 26 5 = 25 6 = 24
(standard for solid uninsulated wire) (standard) Omit for solder cup contacts

Wire Type
A = 7 strd, per NEMA-HP3 (MIL-W-16878/4) B = 7 strd, per NEMA-HP3 (MIL-W-16878/4)
C = 19 strd, per NEMA-HP3 (MIL-W-16878/4) D = 19 strd, per NEMA-HP3 (MIL-W-16878/4)
E = per MIL-W-22759/11 F = per MIL-W-22759/33
L = solid uninsulated Omit for solder cup contacts

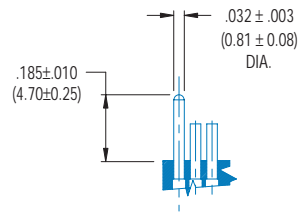
Non Std. Wire Length (Inches)

Guidepin
1 = Guidepin on one end
2 = Guidepin on both ends
Omit for no guidepins

Wire Length
A = 18.00 B = 36.00
C = 72.00 D = 0.500 (solid wire only)
E = 1.00 (solid wire only)

Wire Color / Finish
1 = all white
2 = all yellow
3 = solid uninsulated, tin plated
4 = solid uninsulated, gold plated
5 = color coded per MIL-STD-681, system 1
6 = 1st 10 colors blk. thru wht. repeated
7 = 1st 15 colors blk. thru wht./yel. repeated
omit for solder cup contacts

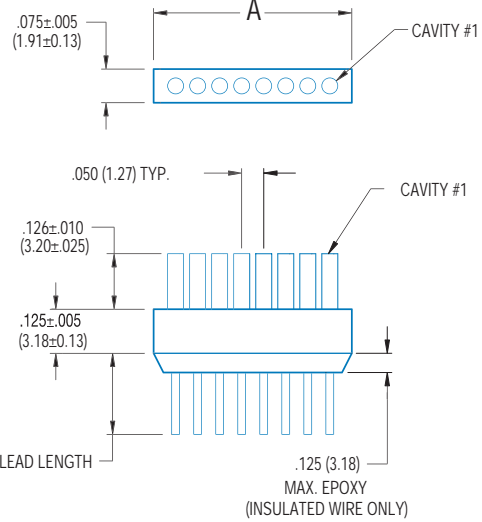
.050 (1.27) Contact centers



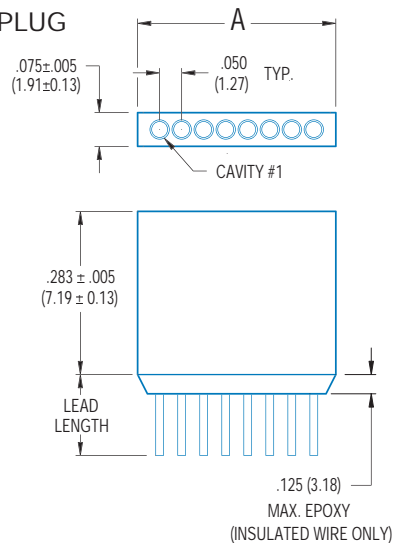
GUIDE PIN DETAIL

PART NUMBER	A ±.005 (±0.13)	PART NUMBER	A ±.005 (±0.13)
105R01**	.075 (1.91)	105R31**	1.575 (39.88)
105R02**	.125 (3.18)	105R32**	1.625 (41.28)
105R03**	.175 (4.45)	105R33**	1.675 (42.55)
105R04**	.225 (5.72)	105R34**	1.725 (43.82)
105R05**	.275 (6.99)	105R35**	1.775 (45.09)
105R06**	.325 (8.25)	105R36**	1.825 (46.36)
105R07**	.375 (9.52)	105R37**	1.875 (47.63)
105R08**	.425 (10.80)	105R38**	1.925 (48.90)
105R09**	.475 (12.07)	105R39**	1.975 (50.17)
105R10**	.525 (13.34)	105R40**	2.025 (51.44)
105R11**	.575 (14.61)	105R41**	2.075 (52.71)
105R12**	.625 (15.88)	105R42**	2.125 (53.98)
105R13**	.675 (17.15)	105R43**	2.175 (55.25)
105R14**	.725 (18.42)	105R44**	2.225 (56.52)
105R15**	.775 (19.69)	105R45**	2.275 (57.79)
105R16**	.825 (20.96)	105R46**	2.325 (59.06)
105R17**	.875 (22.23)	105R47**	2.375 (60.33)
105R18**	.925 (23.50)	105R48**	2.425 (61.60)
105R19**	.975 (24.77)	105R49**	2.475 (62.87)
105R20**	1.025 (26.04)	105R50**	2.525 (64.14)
105R21**	1.075 (27.31)	105R51**	2.575 (65.41)
105R22**	1.125 (28.58)	105R52**	2.625 (66.68)
105R23**	1.175 (29.85)	105R53**	2.675 (67.95)
105R24**	1.225 (31.12)	105R54**	2.725 (69.22)
105R25**	1.275 (32.39)	105R55**	2.775 (70.49)
105R26**	1.325 (33.66)	105R56**	2.825 (71.76)
105R27**	1.375 (34.93)	105R57**	2.875 (73.03)
105R28**	1.425 (36.20)	105R58**	2.925 (74.30)
105R29**	1.475 (37.47)	105R59**	2.975 (75.57)
105R30**	1.525 (38.74)	105R60**	3.025 (76.84)

RECEPTACLE



PLUG





The micro-miniature card connector series 106 is designed for a space conscious industry. The hi-density card configuration connector provides an extremely dense and reliable interconnection for card-to-card and card-to-cable applications. These card connectors are available in vertical mount for thru-hole applications and surface mount for vertical and straddle mount (card edge) configurations. Wire harness termination styles are available for both plug and receptacle, and can be provided in a broad range of wire types and gages (24 thru 30). The shell employs a polarizing d shape for correct mating.

Contacts are used from the Mil-DTL-83513 series connectors on .050(1.27) centers. The contact system employs a custom stamped and formed Pin Contact recessed within the plug insulator. The socket contact is a precision fabricated tube. Pin and socket contacts are epoxy retained in hi grade thermoplastic insulators. The contact system has proven reliability, exceeding the performance specifications of Mil-DTL-83513.

Jackscrews (plug) and jackposts (receptacle) are provided for secure mating and fixturing to cards.

SPECIFICATIONS:

STANDARD MATERIALS AND FINISHES

Shell	Aluminum alloy per QQ-A-200/8 (6061-T6) Yellow chromate / cadmium per QQ-P-416 Type II, class 3
Insulator	Polyphenylene sulfide per MIL-M-24519, type GST-40F. Color: black
Contacts	Copper alloy, 50 gold plate over nickel
Mounting Hardware	300 series stainless steel, passivate
Kit, Jackpost (3) Items	300 series stainless steel, passivate
Washers	400 series stainless steel, passivate
Standard Epoxy	EP1730-1 Color: black
High Temperature Epoxy	Stycast 2651/11 up to 200C
Wire	Insulated: stranded teflon per NEMA-HP3 (MIL-W-16878) Stranded teflon per MIL-W-22759 Uninsulated: solid copper per A-A-59551 (QQ-W-343)

MECHANICAL FEATURES

Coupling	Friction / jackscrews / jackposts
Polarization	Keystone shaped shells
Contact Spacing	.050 (1.27) Centers
Shell Styles	Plug and receptacle

ELECTRICAL DATA

Number of Contacts	50 thru 152
Wire Size	#24 thru #30 AWG
Contact Termination	Multiple indent crimp

ORDERING INFORMATION

Straight PC Termination, Plug, Series 106

Available in sizes 50 thru 152

106 R C 50 P BS

Connector Series

R = Polyphenylene Sulfide

Shell Finish

A = Anodize

C = Cadmium

G = Gold

I = Iridite/Alodine

N = Electroless Nickel

S = Stainless Steel, Passivated

T = Tin

Termination Type

Straight PCB Termination

Connector Type

P = Plug

Connector Size

(Number Of Contacts)

50, 54, 58, 62, 66, 70, 74, 104, 112, 120, 128, 136, 144, 152

Part No.	Size	A ±.005(±.127)	B ±.005(±.127)	C MAX
106RN50PBS	50	1.150 (29.210)	0.990 (24.146)	0.741 (18.821)
106RN54PBS	54	1.200 (30.480)	1.040 (26.614)	0.791 (20.091)
106RN58PBS	58	1.250 (31.750)	1.090 (27.686)	0.841 (21.361)
106RN62PBS	62	1.300 (33.020)	1.140 (28.956)	0.891 (22.631)
106RN66PBS	66	1.350 (34.290)	1.190 (30.226)	0.941 (23.901)
106RN70PBS	70	1.400 (35.560)	1.240 (31.196)	0.991 (25.171)
106RN74PBS	74	1.450 (36.830)	1.290 (32.766)	1.041 (26.441)
106RN104PBS	104	1.850 (46.990)	1.690 (42.923)	1.441 (36.601)
106RN112PBS	112	1.950 (49.530)	1.790 (45.466)	1.541 (39.141)
106RN120PBS	120	2.050 (52.070)	1.890 (48.006)	1.641 (41.681)
106RN128PBS	128	2.150 (54.610)	1.990 (50.546)	1.741 (44.221)
106RN136PBS	136	2.250 (57.150)	2.090 (53.086)	1.841 (46.761)
106RN144PBS	144	2.350 (59.690)	2.190 (55.623)	1.941 (49.301)
106RN152PBS	152	2.450 (62.230)	2.290 (58.166)	2.041 (51.841)

Plug With Stranded Wires

ORDERING INFORMATION

Series 106 With Stranded Wires

Available in sizes 50 thru 152

106 R C 50 P - 4 A 1 - 18.0

Connector Series

Insulator Material

R = Polyphenylene Sulfide

Shell Finish

A = Anodize

C = Cadmium

G = Gold

I = Iridite/Alodine

N = Electroless Nickel

S = Stainless Steel, Passivated

T = Tin

Wire Length

Example: 18.0 means 18.0 in. min.

Wire Colour / Finish

1 = All White

2 = All Yellow

6 = 1st 10 colours blk thru wht repeated

Wire Type

A = 7 STRD, Type E per NEMA-HP3 (MIL-W-16878/4)

B = 7 STRD, Type ET per NEMA-HP3 (MIL-W-16878/4)

C = 19 STRD, Type E per NEMA-HP3 (MIL-W-16878/4)

D = 19 STRD, Type ET per NEMA-HP3 (MIL-W-16878/4)

E = per MIL-W-22759/11

F = per MIL-W-22759/33

Connector Size

(Number Of Contacts)

50, 54, 58, 62, 66, 70, 74, 104, 112, 120, 128, 136, 144, 152

Connector Type

P = Plug

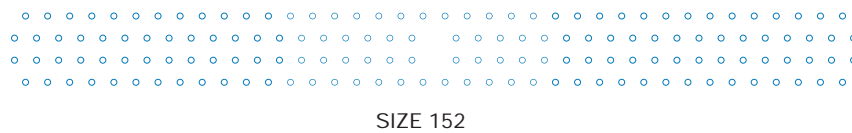
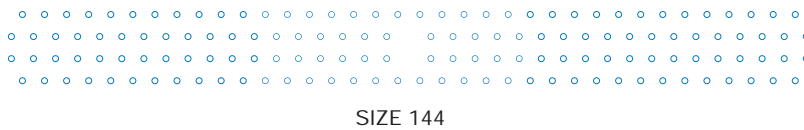
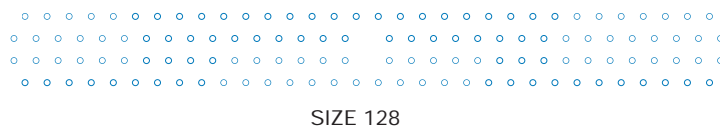
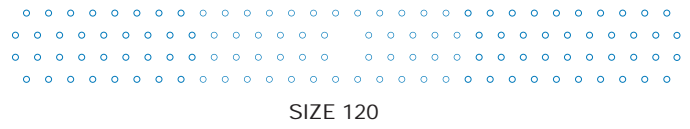
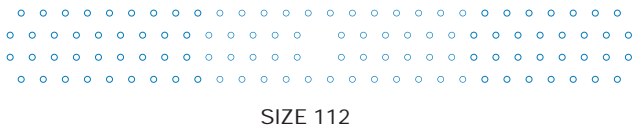
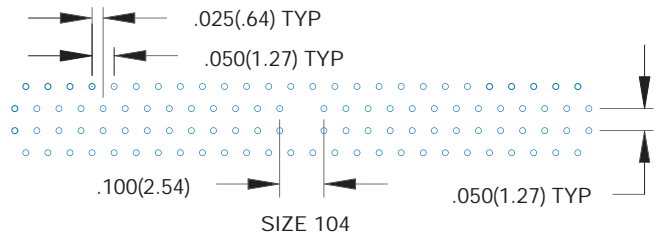
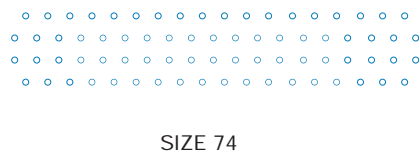
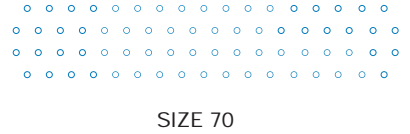
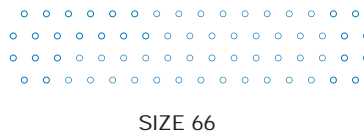
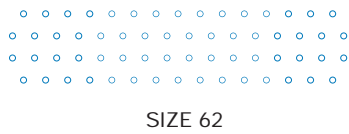
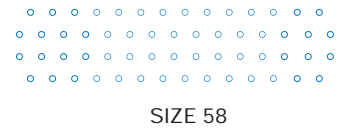
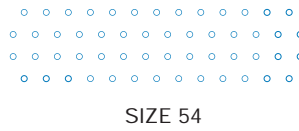
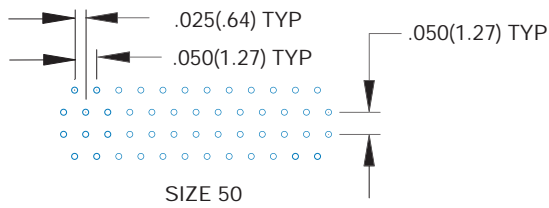
S = Receptacle

Wire Size (AWG)

2=30 AWG 3=28 AWG 4=26 AWG 6=24 AWG

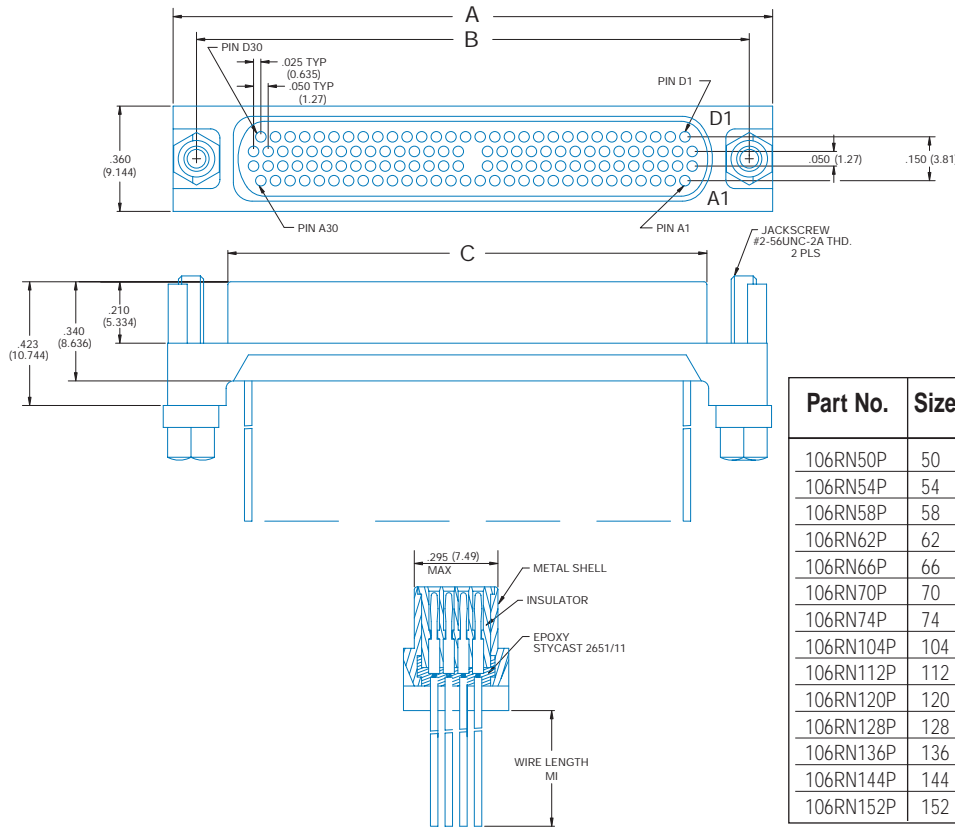
INCHES (MM)

Available in sizes 50 thru 152



Available in sizes 50 thru 152

Size 120 plug shown

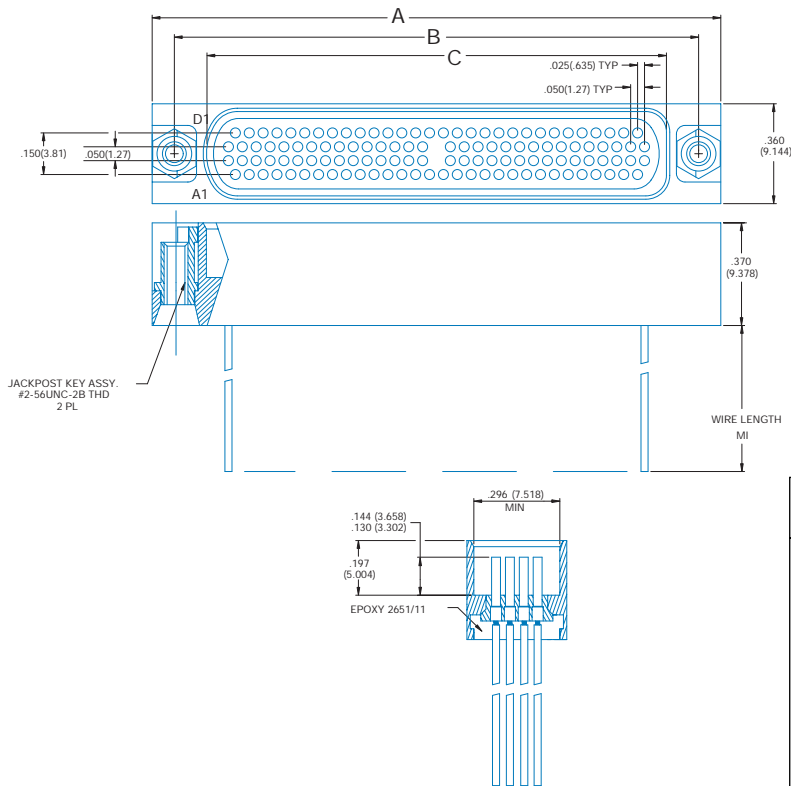


Part No.	Size	A ±.005(±.127)	B ±.005(±.127)	C MAX
106RN50P	50	1.150 (29.210)	0.990 (24.146)	0.741 (18.821)
106RN54P	54	1.200 (30.480)	1.040 (26.614)	0.791 (20.091)
106RN58P	58	1.250 (31.750)	1.090 (27.686)	0.841 (21.361)
106RN62P	62	1.300 (33.020)	1.140 (28.956)	0.891 (22.631)
106RN66P	66	1.350 (34.290)	1.190 (30.226)	0.941 (23.901)
106RN70P	70	1.400 (35.560)	1.240 (31.196)	0.991 (25.171)
106RN74P	74	1.450 (36.830)	1.290 (32.766)	1.041 (26.441)
106RN104P	104	1.850 (46.990)	1.690 (42.923)	1.441 (36.601)
106RN112P	112	1.950 (49.530)	1.790 (45.466)	1.541 (39.141)
106RN120P	120	2.050 (52.070)	1.890 (48.006)	1.641 (41.681)
106RN128P	128	2.150 (54.610)	1.990 (50.546)	1.741 (44.221)
106RN136P	136	2.250 (57.150)	2.090 (53.086)	1.841 (46.761)
106RN144P	144	2.350 (59.690)	2.190 (55.623)	1.941 (49.301)
106RN152P	152	2.450 (62.230)	2.290 (58.166)	2.041 (51.841)

Hi Density Card Connector Receptacle With Stranded Wires

Available in sizes 50 thru 152

Size 120 receptacle shown

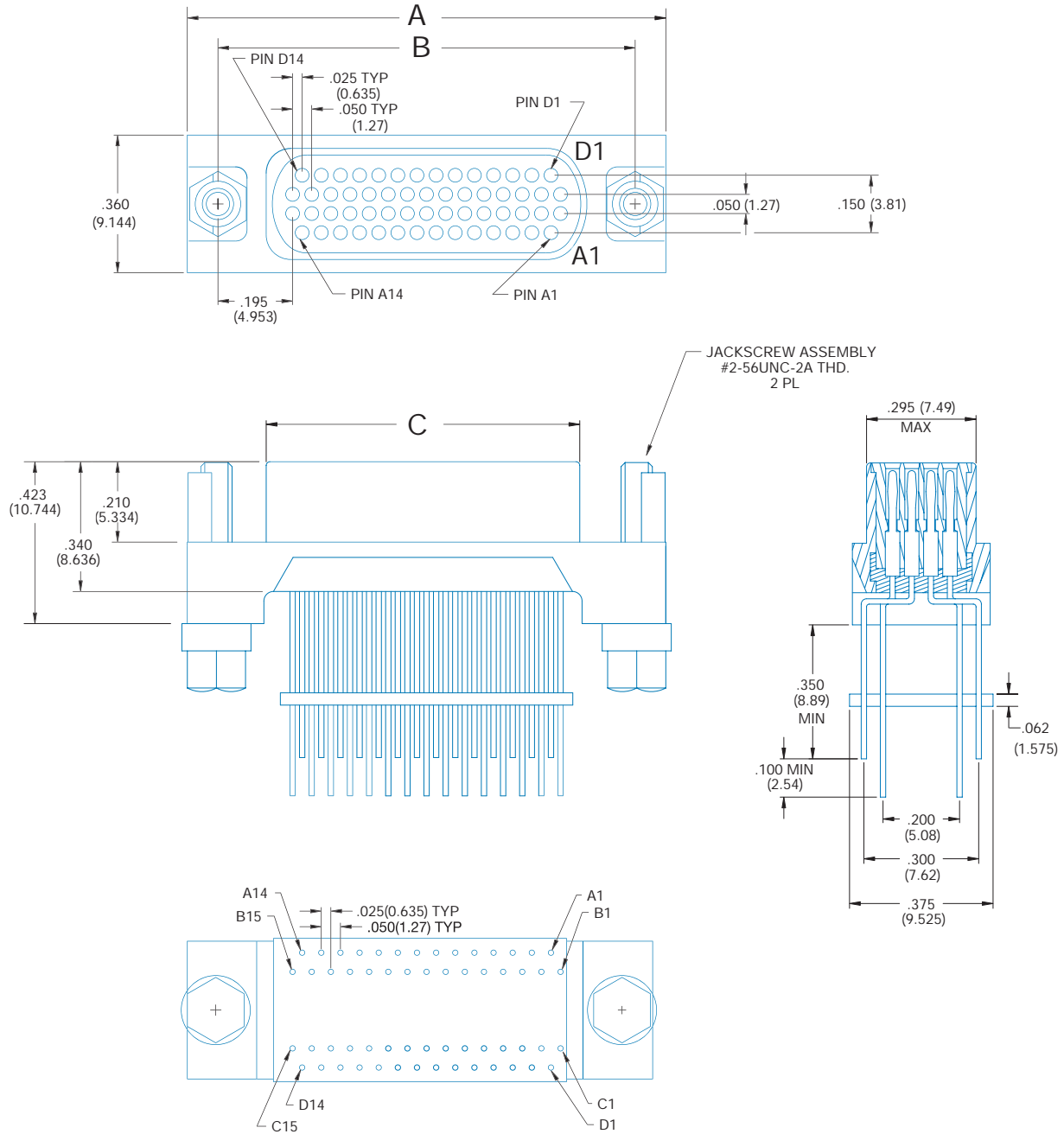


Part No.	Size	A ±.005(±.127)	B ±.005(±.127)	C MAX
106RN50S	50	1.150 (29.210)	0.990 (24.146)	0.747 (18.974)
106RN54S	54	1.200 (30.480)	1.040 (26.614)	0.797 (20.244)
106RN58S	58	1.250 (31.750)	1.090 (27.686)	0.847 (21.514)
106RN62S	62	1.300 (33.020)	1.140 (28.956)	0.897 (22.784)
106RN66S	66	1.350 (34.290)	1.190 (30.226)	0.947 (24.054)
106RN70S	70	1.400 (35.560)	1.240 (31.196)	0.997 (25.324)
106RN74S	74	1.450 (36.830)	1.290 (32.766)	1.047 (26.594)
106RN104S	104	1.850 (46.990)	1.690 (42.923)	1.447 (36.754)
106RN112S	112	1.950 (49.530)	1.790 (45.466)	1.547 (39.294)
106RN120S	120	2.050 (52.070)	1.890 (48.006)	1.647 (41.834)
106RN128S	128	2.150 (54.610)	1.990 (50.546)	1.747 (44.374)
106RN136S	136	2.250 (57.150)	2.090 (53.086)	1.847 (46.914)
106RN144S	144	2.350 (59.690)	2.190 (55.623)	1.947 (49.454)
106RN152S	152	2.450 (62.230)	2.290 (58.166)	2.047 (51.994)

INCHES (MM)

Standard lead termination is #28 AWG, solid copper, tin plated, solder dipped

Available in sizes 50 thru 74

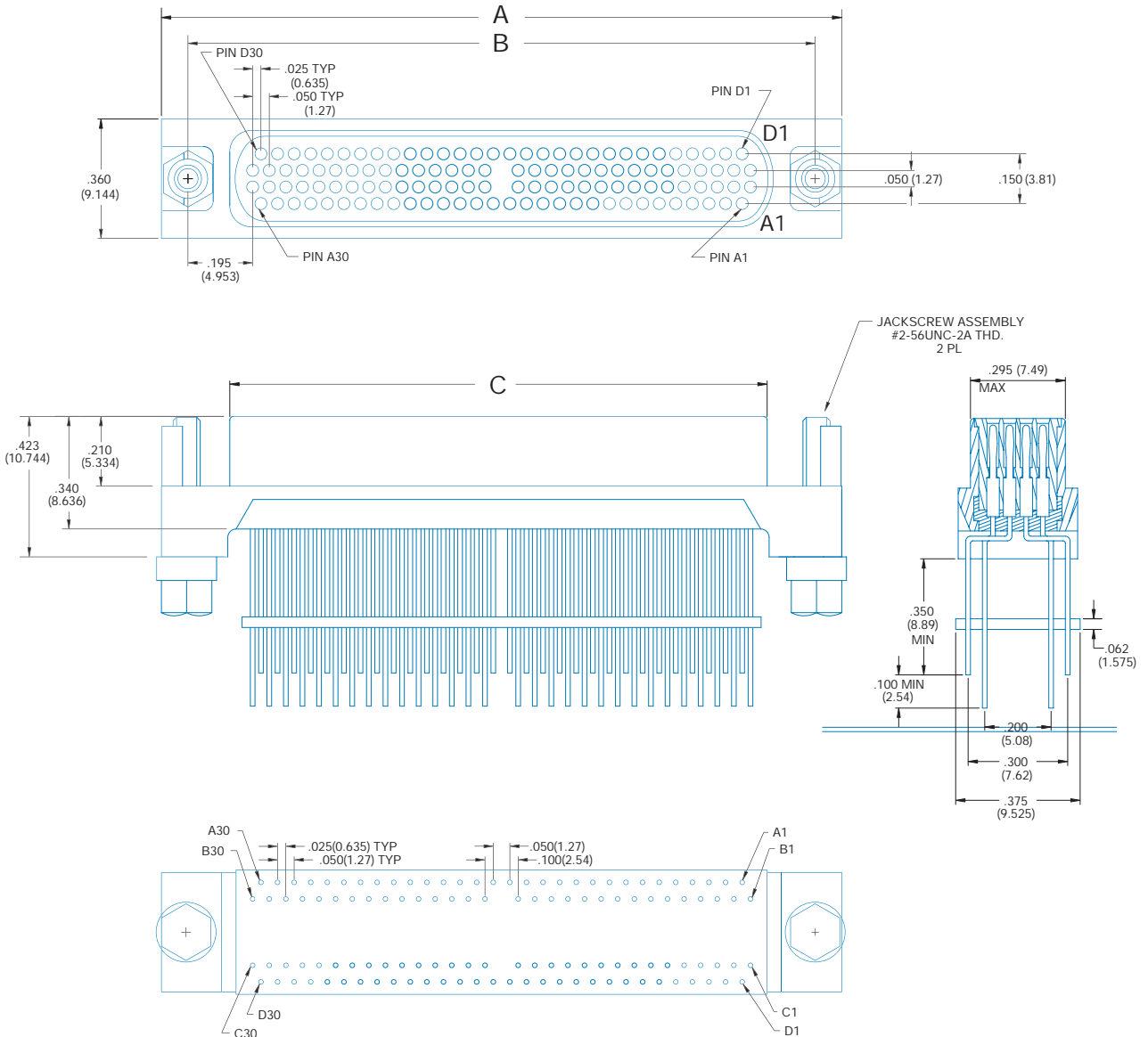


Size 58 shown.

Configuration is same for sizes 50 thru 74.

Standard lead termination is #28 AWG, solid copper, tin plated, solder dipped

Available in sizes 104 thru 152



Size 120 plug shown.

Configuration is same for sizes 104 thru 152.

ORDERING INFORMATION

Vertical Surface Mount, Plug, Series 106

Available in sizes 50 thru 152

106 R C 50 P VSM

Connector Series

R = Polyphenylene Sulfide

Shell Finish

A = Anodize

C = Cadmium

G = Gold

I = Iridite/Alodine

N = Electroless Nickel

S = Stainless Steel, Passivated

T = Tin

Termination Type

Vertical Surface Mount

Connector Type

P = Plug

Connector Size

(Number Of Contacts)

50, 54, 58, 62, 66, 70, 74, 104, 112, 120, 128, 136, 144, 152

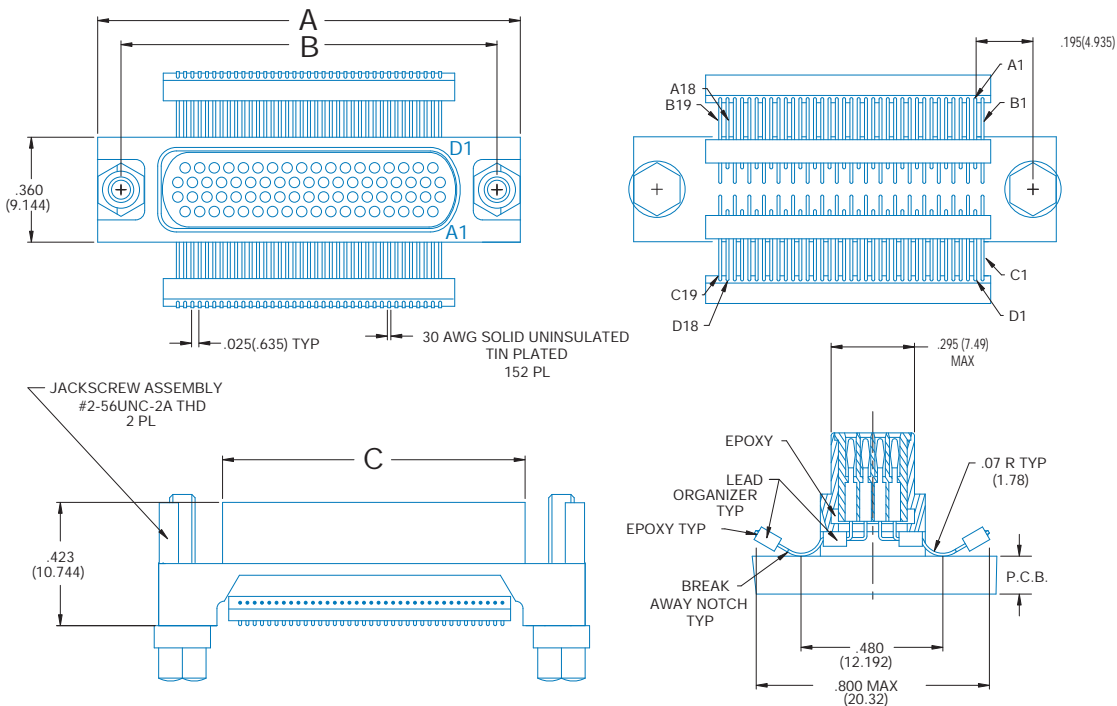
Part No.	Size	A ±.005(±.127)	B ±.005(±.127)	C MAX
106RN50PVSM	50	1.150 (29.210)	0.990 (24.146)	0.741 (18.821)
106RN54PVSM	54	1.200 (30.480)	1.040 (26.614)	0.791 (20.091)
106RN58PVSM	58	1.250 (31.750)	1.090 (27.686)	0.841 (21.361)
106RN62PVSM	62	1.300 (33.020)	1.140 (28.956)	0.891 (22.631)
106RN66PVSM	66	1.350 (34.290)	1.190 (30.226)	0.941 (23.901)
106RN70PVSM	70	1.400 (35.560)	1.240 (31.530)	0.991 (25.171)
106RN74PVSM	74	1.450 (36.830)	1.290 (32.766)	1.041 (26.441)
106RN104PVSM	104	1.850 (46.990)	1.690 (42.923)	1.441 (36.601)
106RN112PVSM	112	1.950 (49.530)	1.790 (45.466)	1.541 (39.141)
106RN120PVSM	120	2.050 (52.070)	1.890 (48.006)	1.641 (41.681)
106RN128PVSM	128	2.150 (54.610)	1.990 (50.546)	1.741 (44.221)
106RN136PVSM	136	2.250 (57.150)	2.090 (53.086)	1.841 (46.761)
106RN144PVSM	144	2.350 (59.690)	2.190 (55.623)	1.941 (49.301)
106RN152PVSM	152	2.450 (62.230)	2.290 (58.166)	2.041 (51.841)

Standard lead termination is #30 AWG, solid copper, tin plated

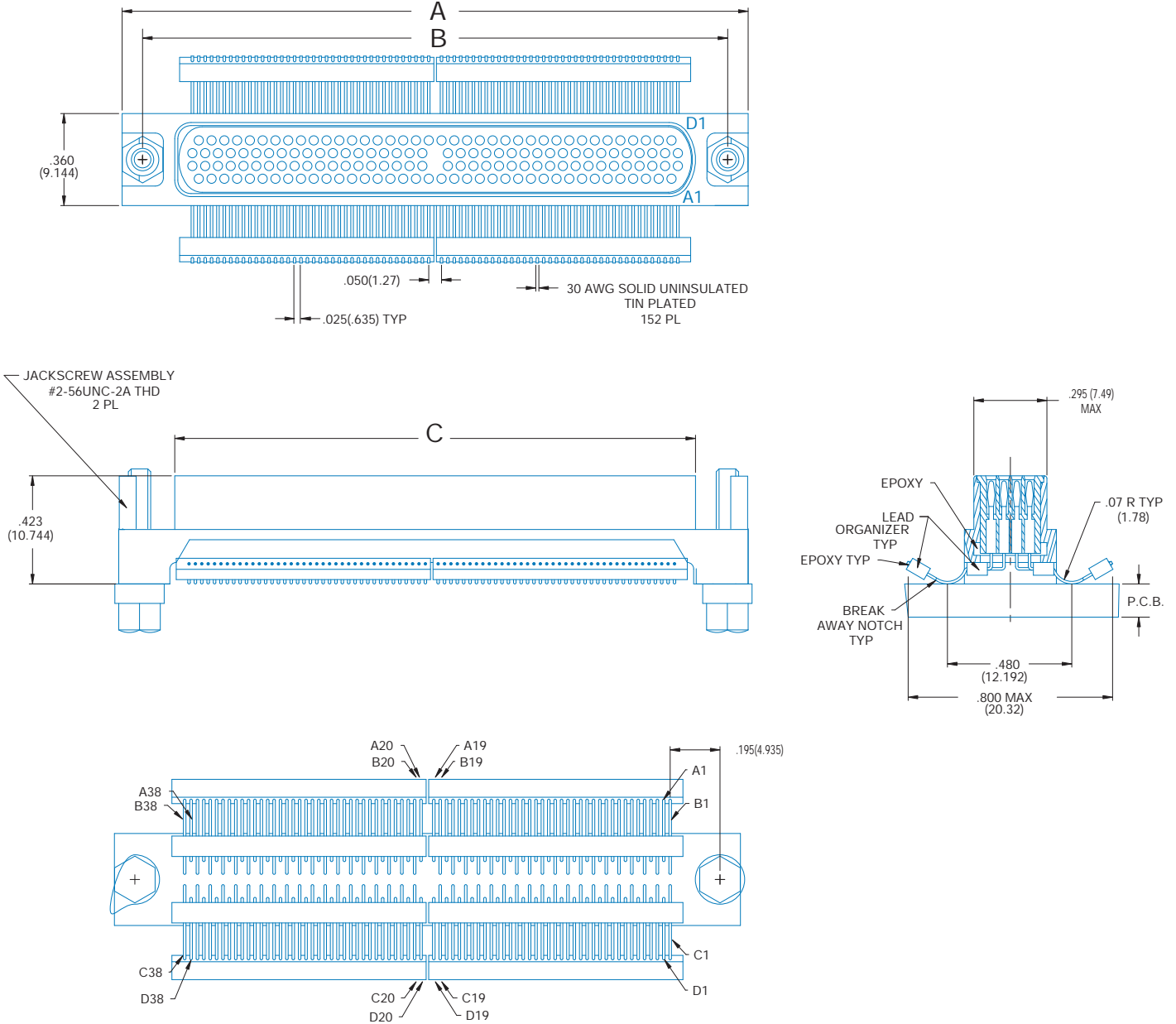
• Available in sizes 50 thru 152 • Size 74 shown

• Configuration shown for sizes 50 thru 74

Plug, Vertical Surface Mount



Standard lead termination is #30 AWG, solid copper, tin plated
 Available in sizes 50 thru 152



Size 152 plug shown.
 Configuration is same for sizes 104 thru 152.

INCHES (MM)

ORDERING INFORMATION

Series 106 With Stranded Wires

Standard lead termination is #30 AWG, solid copper, tin plated • Available in sizes 50 thru 152

106 R C 50 S - ECM

Connector Series

Insulator Material

R = Polyphenylene Sulfide

Shell Finish

A = Anodize

C = Cadmium

G = Gold

I = Iridite/Alodine

N = Electroless Nickel

S = Stainless Steel, Passivated

T = Tin

Termination Type

Edge Card

Surface Mount

Connector Type

S = Receptacle

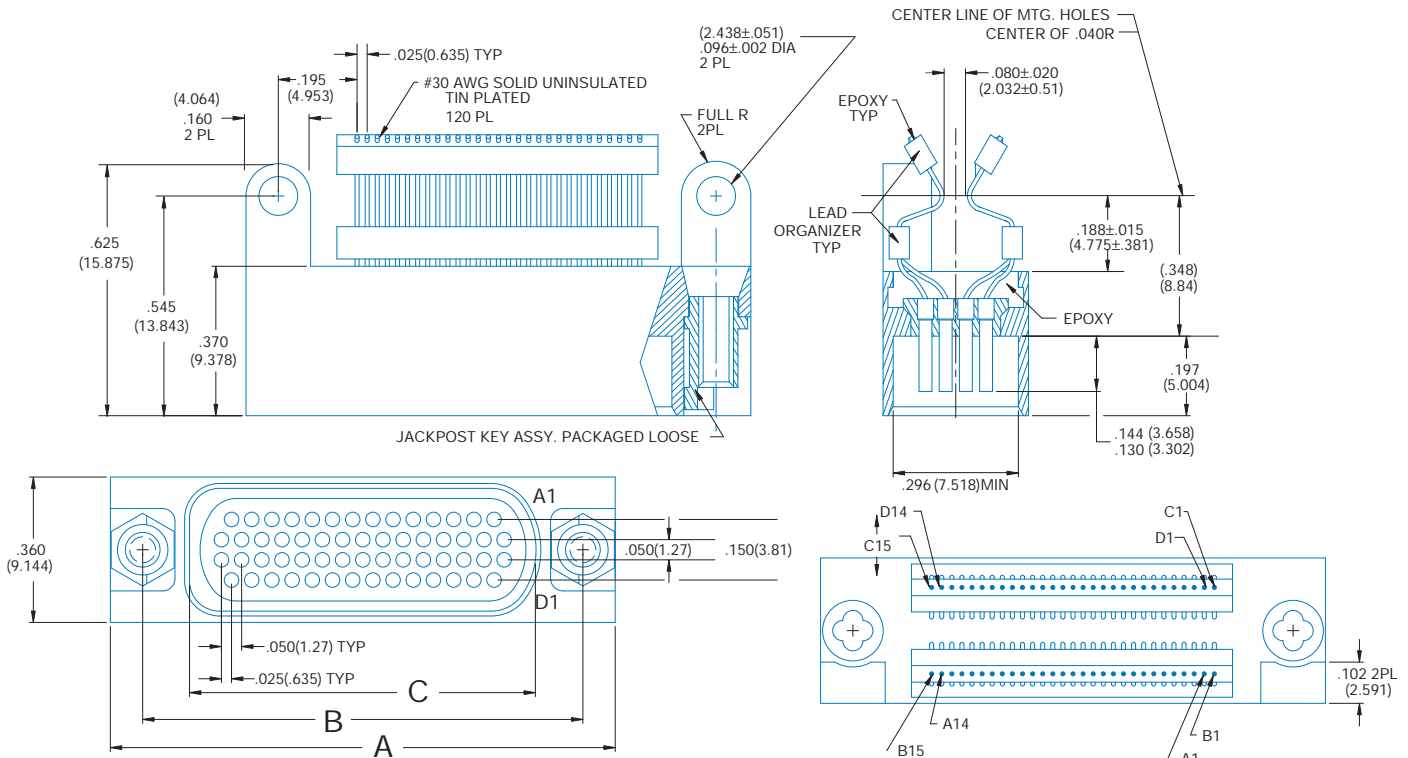
Connector Size

(Number Of Contacts)

50, 54, 58, 62, 66, 70, 74, 104, 112, 120, 128, 136, 144, 152

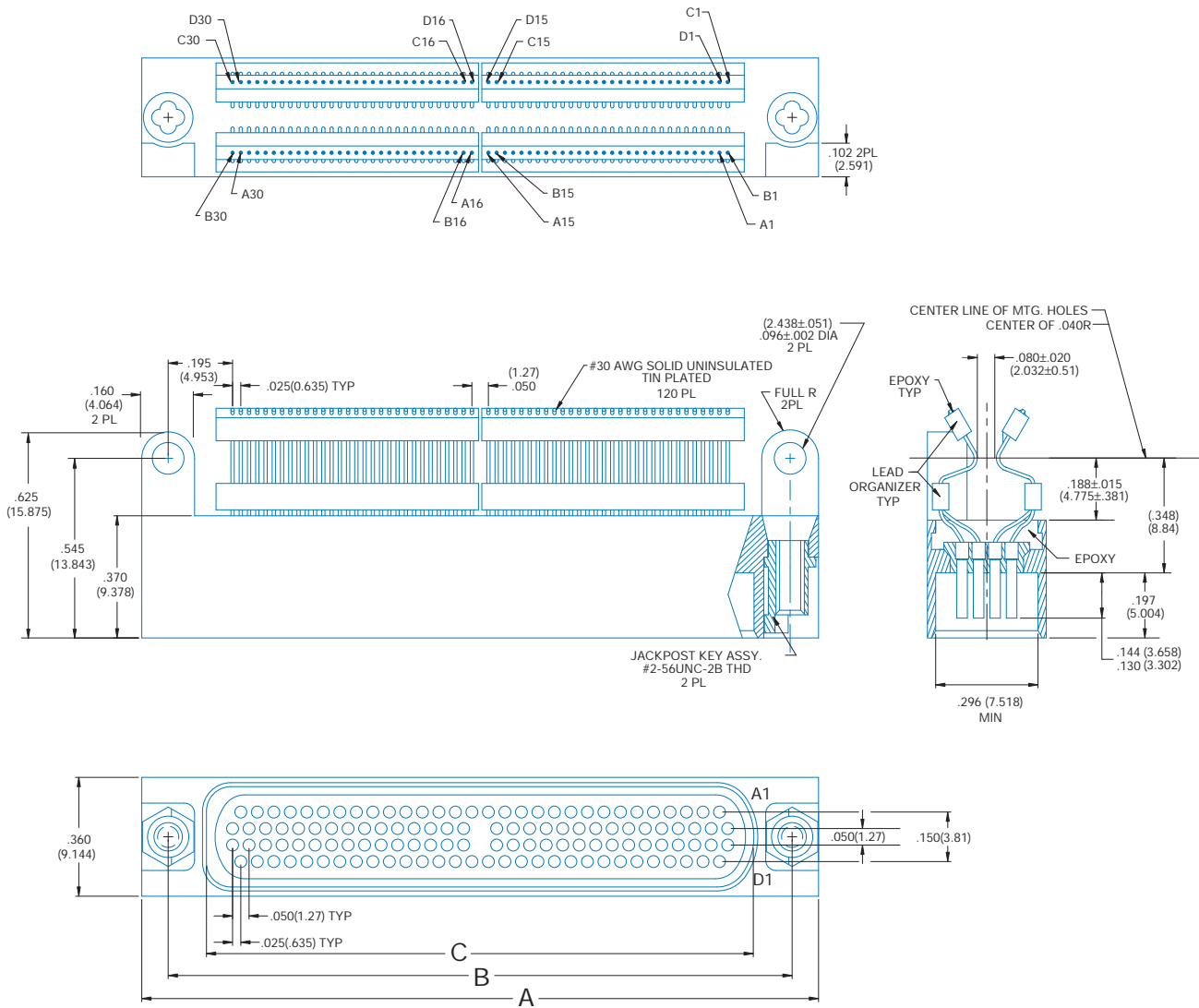
PART NUMBER	SIZE	A ±.005(±.127)	B ±.005(±.127)	C MIN
106RN50SECM	50	1.150 (29.210)	0.990 (24.146)	0.747 (18.974)
106RN54SECM	54	1.200 (30.480)	1.040 (26.614)	0.797 (20.244)
106RN58SECM	58	1.250 (31.750)	1.090 (27.686)	0.847 (21.514)
106RN62SECM	62	1.300 (33.020)	1.140 (28.956)	0.897 (22.784)
106RN66SECM	66	1.350 (34.290)	1.190 (30.226)	0.947 (24.054)
106RN70SECM	70	1.400 (35.560)	1.240 (31.496)	0.997 (25.324)
106RN74SECM	74	1.450 (36.830)	1.290 (32.766)	1.047 (26.594)
106RN104SECM	104	1.850 (46.990)	1.690 (42.923)	1.447 (36.754)
106RN112SECM	112	1.950 (49.530)	1.790 (45.466)	1.547 (39.294)
106RN120SECM	120	2.050 (52.070)	1.890 (48.006)	1.647 (41.834)
106RN128SECM	128	2.150 (54.610)	1.990 (50.546)	1.747 (44.374)
106RN136SECM	136	2.250 (57.150)	2.090 (53.086)	1.847 (46.914)
106RN144SECM	144	2.350 (59.690)	2.190 (55.623)	1.947 (49.454)
106RN152SECM	152	2.450 (62.230)	2.290 (58.166)	2.047 (51.994)

Size 58 receptacle shown.
Configuration is same for sizes
50 thru 74.



Standard lead termination is #30 AWG, solid copper, tin plated

Available in sizes 50 thru 152



Size 120 receptacle shown.
Configuration shown for sizes 104 thru 152.

INCHES (MM)

The Amphenol Microminiature EMI backshell series MBS is designed for use with MIL-DTL-83513 connectors, for a reliable means of providing EMI and strain relief for harnessed connectors.

The backshells are available for connectors from 9 position thru 100 position and are available in straight, 45° and 90° exits.

The backshells are machined from Aluminum alloy and are offered with Cadmium, Gold or Electroless Nickel finish. Custom finishes are also available.

SPECIFICATIONS:

MATERIAL AND PERFORMANCE INFORMATION

1. Material: Aluminum alloy 6061-T6 per QQ-A-200/8.
2. Magnetic permeability, (MIL-I-17214) less than 2 mu
3. Shielding efficiency, to 1 GHZ, 60db to >100 db
4. Vibration per MIL-STD-1344 Method 2004, condition C, no damage or discontinuity between shell and shield.

ORDERING INFORMATION

Micro-D EMI Backshells

Conforms to MIL-C-83513 • Available in sizes 9 to 100 • Straight, 45° and 90° exit angles

MBS - XXX X - E X XX

Micro-D Series Backshells

Shell Size
9, 15, 21, 25, 31, 37, 51, 100

Shell Finish
C = Cadmium plate, bright dip, per QQ-P-416 Type I, class 3, over electroless nickel per MIL-C-26074 Class 3 or 4, Grade B
N = Electroless nickel plate per MIL-C-26074 Class 3 OR 4, Grade B
G = Gold plate per MIL-G-45204 Type II, Grade C, Class 3
Z = Special: customer specified finish

Exit Angle Code

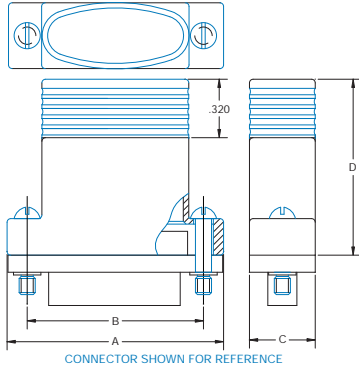
- 00** Straight (see page bs-2, table 1)
- 45** 45° Exit (see page bs-3, table 2)
- 90** 90° EXIT (see page bs-4, table 3)

Exit Size Code

- A** = .290W X .344L (9 thru 100)
- B** = .290W X .494L (15 thru 100)
- C** = .290W X .644L (21 thru 100)
- D** = .304W X .744L (25 thru 100)
- E** = .304W X .894L (31 thru 100)
- F** = .304W X .994L (37 thru 100)
- G** = .304W X 1.044L (51 thru 100)
- H** = .384W X 1.524L (100 only)

Elliptical Exit Code

MBS SERIES



Micro-D EMI Backshells - Straight Elliptical Cable Exit

Qualified to MIL-C-83513 • Connector sizes 9 thru 100

Shell Size	A MAX	B ±.005(±.127)	C ±.005(±.127)	D ±.020(±.50)
9	.785	.340	.762	.565
15	.935	.715	.340	.812
21	1.085	.865	.340	.862
25	1.185	.965	.360	.912
31	1.335	1.115	.360	.952
37	1.485	1.265	.360	.992
51	1.435	1.215	.400	1.072
100	2.175	1.800	.450	1.137

Micro-D EMI Backshells - 45° Elliptical Cable Exit

Qualified to MIL-C-83513 • Connector sizes 9 thru 100

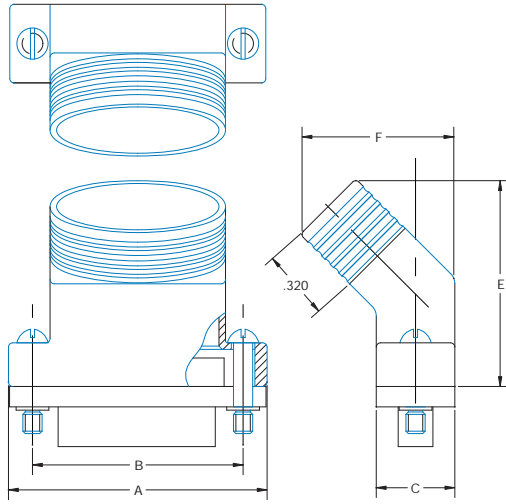


TABLE 2

Shell Size	A MAX	B ±.005(±.127)	C ±.005(±.127)	E MAX	F MAX
9	.785	.565	.340	.851	.673
15	.935	.715	.340	.876	.673
21	1.085	.865	.340	.901	.673
25	1.185	.965	.360	.943	.700
31	1.335	1.115	.360	.963	.700
37	1.485	1.265	.360	.983	.700
51	1.435	1.215	.400	1.058	.755
100	2.175	1.800	.450	1.135	.824

Micro-D EMI Backshells - 90° Elliptical Cable Exit

Qualified to MIL-C-83513 • Connector sizes 9 thru 100

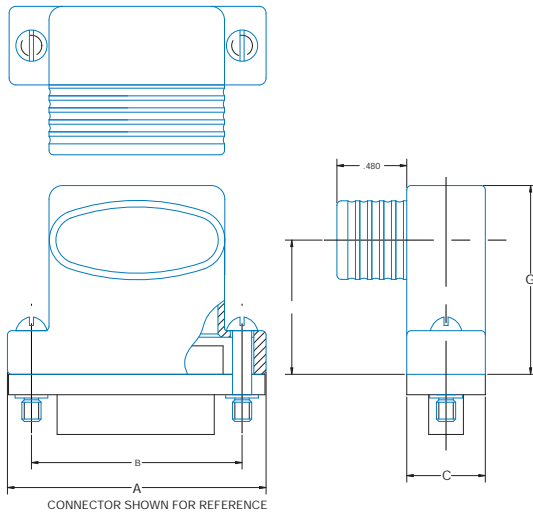


TABLE 3

Shell Size	A MAX	B ±.005(±.127)	C ±.005(±.127)	G MAX	H MAX
9	.785	.565	.340	.865	.615
15	.935	.715	.340	.865	.615
21	1.085	.865	.340	.865	.615
25	1.185	.965	.360	.885	.625
31	1.335	1.115	.360	.885	.625
37	1.485	1.265	.360	.885	.625
51	1.435	1.215	.400	.925	.645
100	2.175	1.800	.450	.980	.657

Micro-D EMI Backshells - Elliptical Cable Exit Dimensions

Qualified to MIL-C-83513 • Connector sizes 9 thru 100

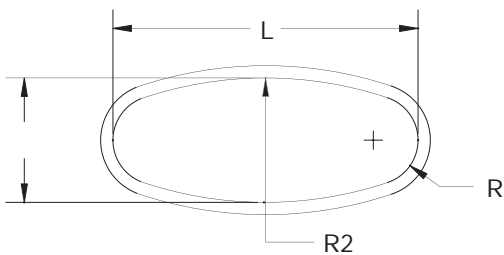


TABLE 4

Exit Code	W MAX	L ±.005(±.127)	R1 ±.005(±.127)	R2 MAX	Available on Shell Sizes
A	.290	.344	.109	.182	9 thru 100
B	.290	.494	.109	.353	15 thru 100
C	.290	.644	.109	.757	21 thru 100
D	.304	.744	.109	.940	25 thru 100
E	.304	.894	.109	1.468	31 thru 100
F	.304	.994	.109	1.893	37 thru 100
G	.304	1.044	.109	2.128	37 and 100
H	.384	1.524	.125	3.187	100 only

INCHES (MM)

Amphenol Canada's M13 connector series is a range of filtered MIL-C-83513 Micro-D products for military and aerospace applications. These extremely small (0.050" center spacing) filter connectors employ monolithic planar capacitors in a rugged, high density package ideally suited for applications where space and weight is restricted. Available in a variety of filter types and mechanical configurations, including wired harnesses, the M13 series are fully intermateable with all standard MIL-C-83513 connectors and meet the applicable performance and environmental requirements.

SPECIFICATIONS:

Filter Circuits	C, CLR, LRC					
Capacitance (pF) (@ 25 C, 1 kHz and 1.0 VRMS)	150 to 300	300 to 500	600 to 1000	1200 to 2000	4000 to 8000	8000 to 16000
Insertion Loss (dB min.) (per MIL-STD-220 @ 25 C and no load)	.1 MHz	-	-	-	-	-
	1 MHz	-	-	-	-	-
	10 MHz	-	-	2	5	13
	100 MHz	7	13	18	24	33
1000 MHz	33	40	48	50	54	60
Working Voltage (VDC) (@ 25 C & sea level)	100					
Dielectric Withstanding Voltage (VDC) (@ 25 C and 50 mA max. charging current)	300					
Insulation Resistance (Gohms) (@ 25 C and working voltage)	5					
Contact Current Rating (continuous max. DC amperes)	3					
Filter RF Current Rating (amperes) (max. @ any frequency)	3					

ORDERING INFORMATION

M13 - 21 S 3 C A2 1 1 - 000

Amphenol Series
M13

Contact Arrangement
9, 15, 21, 25, 31, 37

Connector Type
P = Pin
S = Socket

Termination Style
1 = .019 X 150 PCB
2 = 19 X .250 PCB
3 = Solder Cup
4 = Right Angle PCB
5 = Insulated Stranded Wire (18")

Filter Circuits
C = Capacitive

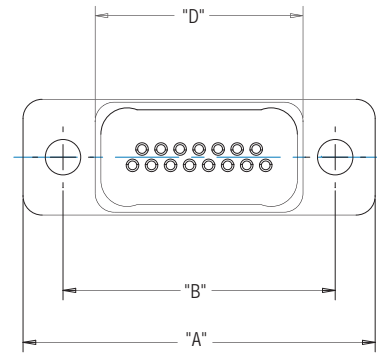
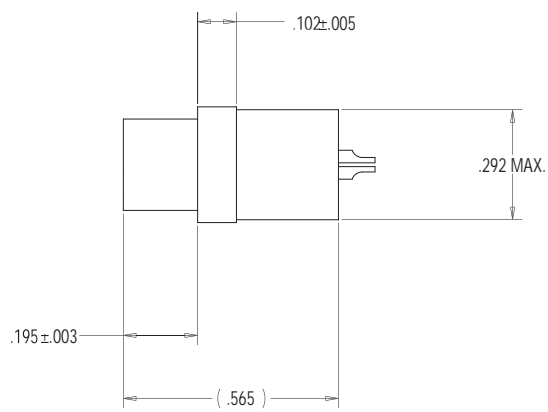
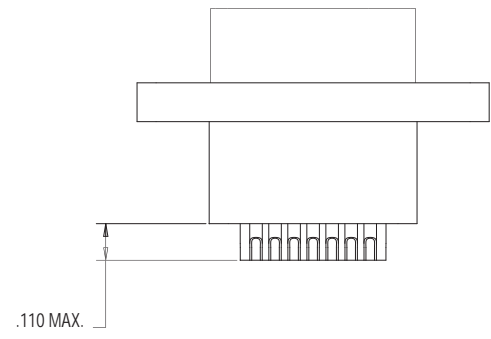
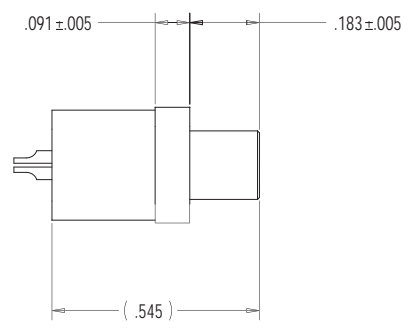
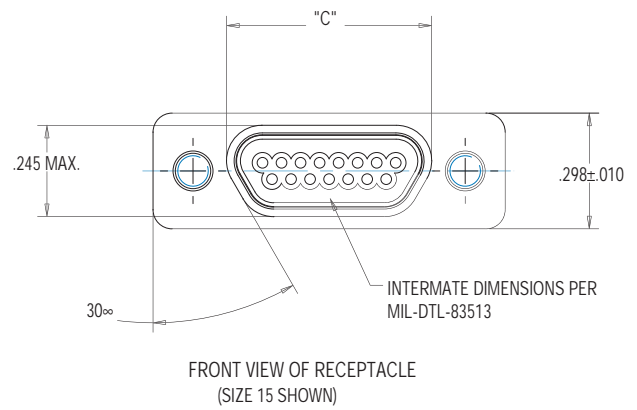
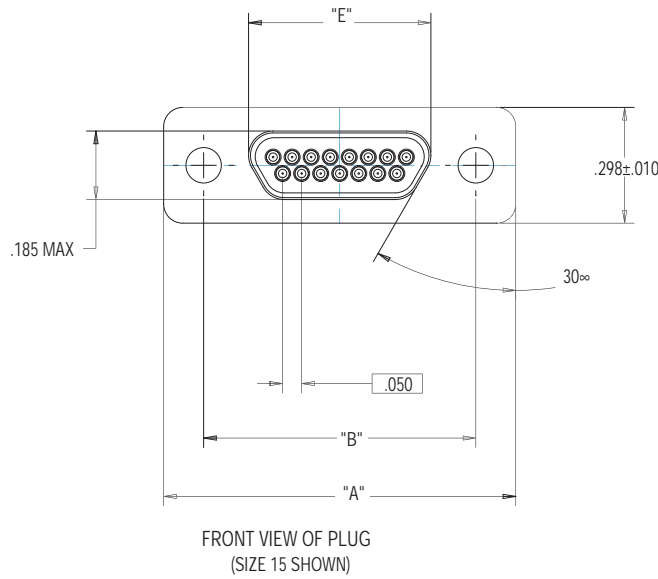
Special Deviations
000 = Standard

Shell Plating
1 = Electroless Nickel
2 = Tin
3 = Cadmium (yellow)
4 = Gold

Mounting Styles
1 = .092" Dia. Hole
2 = 2-56 Thread
3 = Right Angle Mtg

Capacitance
A2 = 150 - 300pF
A3 = 300 - 500pF
A6 = 600 - 1000pF
01 = 1200 - 2000pF
04 = 4000 - 8000pF
08 = 8000 - 16000pF

- One piece rugged aluminum shell
- Silicone environmental facial seal
- Cost and space effective solution to EMI problems
- Epoxy sealed against harsh environments
- Operating temperature range, -55C to 125C



REAR VIEW
PLUG AND RECEPTACLE

Shell Size	A±.010	B±.010	C Max.	D Max.	E Max.
9	0.775 (19.7)	0.565 (14.4)	0.400 (10.2)	0.400 (10.2)	0.333 (8.46)
15	0.925 (23.5)	0.715 (18.16)	0.550 (13.97)	0.550 (13.97)	0.483 (12.27)
21	1.075 (27.31)	0.865 (21.97)	0.700 (17.78)	0.700 (17.78)	0.633 (8.38)
25	1.175 (29.85)	0.965 (24.51)	0.800 (20.32)	0.800 (20.32)	0.733 (18.62)
31	1.325 (33.66)	1.115 (28.32)	0.950 (24.13)	0.950 (24.13)	0.883 (22.43)
37	1.475 (37.47)	1.265 (32.13)	1.100 (27.94)	1.100 (27.94)	1.033 (26.24)

SD308



For Sea, Air or Land, these connectors are SEALED! Amphenol's SD308 Sealed D-Subminiature Connectors are available in the full range of standard density and hi-density insert arrangements, pin and socket contacts. These connectors are supplied with fixed screw machine contacts and are available in Solder Cup, Straight PCB, and Right Angle PCB terminations.

- Ruggedized Computers and Peripheral Equipment
- Industrial Controllers
- 21st Century Soldier
- Ideal For Retrofit Applications Or Late Design-In

Sealed D-Sub Connectors

SPECIFICATIONS:

PRODUCT FEATURES

- One piece machined Aluminum Shell
- Gold Plated Screw Machine Contacts
- Hi Grade Thermoplastic Inserts -67°F to +257°F (-55°C to +125°C)
- Integrated Blind Panel Mounts
- Supplied with Conductive Panel Seal Gasket

MATERIALS AND PLATINGS

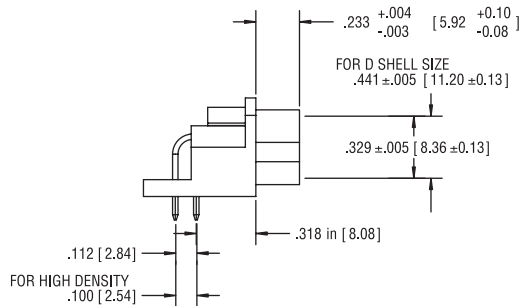
Shells	Machined aluminum alloy, tin plated
Inserts	High temperature resistant polyethersulfone per mil-p-46185
Contacts	Copper alloy, 20µ" (0.51µm) gold plated over nickel.
Seal	Silicone elastomer with nickel plated graphite flake

ELECTRICAL DATA

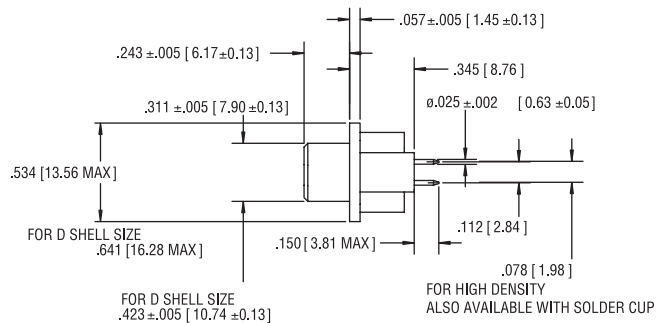
Current Rating	5A
Insulation Resistance	5 GIGOHM @ 500 VDC
Working Voltage	120 VAC
D.W.V.	1,000 VAC pin to pin & pin to shell

CLIMATIC DATA

Operating Temperature	-67°F to +257°F (-55°C to +125°C)
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PLUG - SIDE VIEW



RECEPTACLE - SIDE VIEW

SD308 - E09 - S - A - 1 - 000

Series Designation

Shell Size & Number Of Contacts

STD Density E09, A15, B25, C37, D50

HIGH Density E15, A26, B44, C62, D78, 6106

Contact Type

S=Socket Contact P= Pin Contact

000 = Standard part
other deviations as required

Mounting Type

1 = 4-40 Blind Nut

2 = 4-40 Blind Nut with R/A Mounting Bracket

Termination Style

A = Right Angle pcb B = Vertical pcb

C = Solder Cup



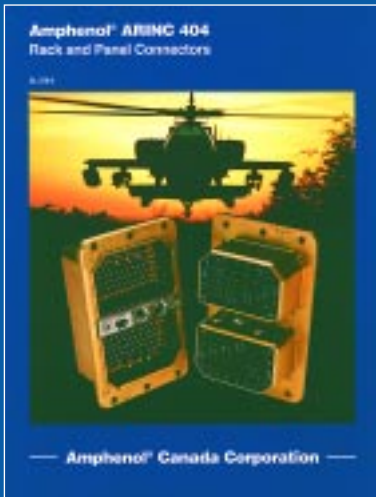
SL-379-3
Rack and Panel Connectors



D-Subminiature Connectors



Filtered Connectors



SL-378-3
Rack and Panel Connectors



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