



# ITT

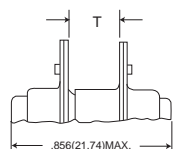
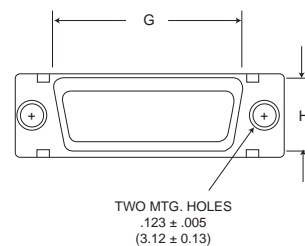
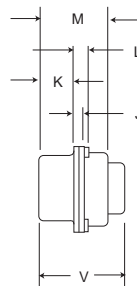
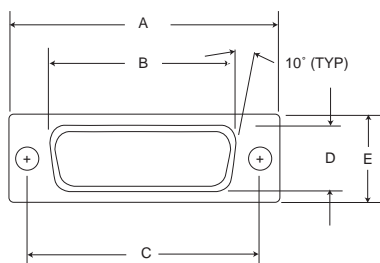
Interconnect Solutions  
Cannon, VEAM, BIW

Assuring **100% reliability**  
in over **5,000** missile launches  
to our armed forces and global allies



*Engineered for life*

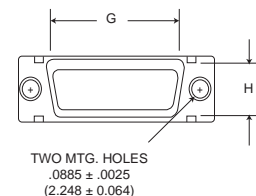
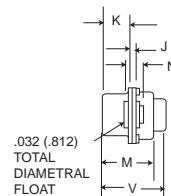
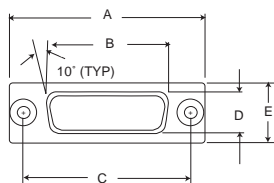
### Standard Shell



Part Number by Shell Size	T + .020 (0.51) - .000 (0.00)
2DE19P	.250 (6.35)
2DE19S	.250 (6.35)
2DA31P	.250 (6.35)
2DA31S	.250 (6.35)
2DB52P	.236 (5.99)

Part Number by Shell Size	T + .020 (0.51) - .000 (0.00)
2DB52S	.236 (5.99)
2DC79P	.236 (5.99)
2DC79S	.236 (5.99)
2DD100P	.236 (5.99)
2DD100S	.236 (5.99)

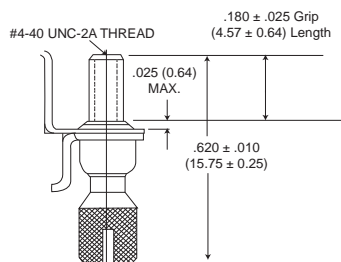
### Float Mount



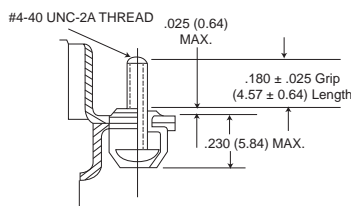
Part Number by Shell Size	A ± .015 (0.38)	B ± .010 (0.25)	C ± .010 (0.25)	D ± .010 (0.25)	E ± .015 (0.38)	G ± .010 (0.25)	H ± .010 (0.25)	J ± .010 (0.25)	K ± .010 (0.25)	L ± .010 (0.25)	M ± .010 (0.25)	N ± .010 (0.25)	V Max.
2DE19P	1.213 (30.81)	.697 (17.70)	.984 (24.99)	.360 (9.14)	.494 (12.55)	.759 (19.28)	.422 (10.72)	.036 (.914)	.236 (5.99)	.055 (1.40)	.422 (10.72)	.120 (3.05)	.555 (14.10)
2DE19S	1.213 (30.81)	.640 (16.26)	.984 (24.99)	.308 (7.82)	.494 (12.55)	.759 (19.28)	.422 (10.72)	.032 (.812)	.243 (6.17)	.047 (1.19)	.429 (10.90)	.120 (3.05)	.555 (14.10)
2DA31P	1.541 (39.14)	1.025 (26.03)	1.312 (33.32)	.360 (9.14)	.494 (12.55)	1.083 (27.51)	.422 (10.72)	.036 (.914)	.236 (5.99)	.055 (1.40)	.422 (10.72)	.120 (3.05)	.555 (14.10)
2DA31S	1.541 (39.14)	.968 (24.58)	1.312 (33.32)	.308 (7.82)	.494 (12.55)	1.083 (27.51)	.422 (10.72)	.032 (.812)	.243 (6.17)	.047 (1.19)	.429 (10.90)	.120 (3.05)	.555 (14.10)
2DB52P	2.088 (53.03)	1.583 (40.21)	1.852 (47.04)	.378 (9.60)	.494 (12.55)	1.625 (41.27)	.422 (10.72)	.036 (.914)	.231 (5.87)	.055 (1.40)	.426 (10.82)	.129 (3.28)	.555 (14.10)
2DB52S	2.088 (53.03)	1.508 (38.30)	1.852 (47.04)	.308 (7.82)	.494 (12.55)	1.625 (41.27)	.422 (10.72)	.032 (.812)	.243 (6.17)	.047 (1.19)	.429 (10.90)	.120 (3.05)	.555 (14.10)
2DC79P	2.729 (69.31)	2.231 (56.67)	2.500 (63.50)	.378 (9.60)	.494 (12.55)	2.272 (57.71)	.422 (10.72)	.036 (.914)	.231 (5.87)	.055 (1.40)	.426 (10.82)	.129 (3.28)	.555 (14.10)
2DC79S	2.729 (69.31)	2.156 (54.76)	2.500 (63.50)	.308 (7.82)	.494 (12.55)	2.272 (57.71)	.422 (10.72)	.032 (.812)	.243 (6.17)	.047 (1.19)	.429 (10.90)	.120 (3.05)	.555 (14.10)
2DD100P	2.635 (66.92)	2.127 (54.02)	2.406 (61.11)	.484 (12.29)	.605 (15.37)	2.178 (55.32)	.534 (13.56)	.036 (.914)	.231 (5.87)	.055 (1.40)	.426 (10.82)	.129 (3.28)	.555 (14.10)
2DD100S	2.635 (66.92)	2.062 (52.37)	2.406 (61.11)	.420 (10.67)	.605 (15.37)	2.178 (55.32)	.534 (13.56)	.032 (.812)	.243 (6.17)	.047 (1.19)	.429 (10.90)	.120 (3.05)	.555 (14.10)

For shell with float mounts, add letter F after shell size, e.g., 2DEF19P.

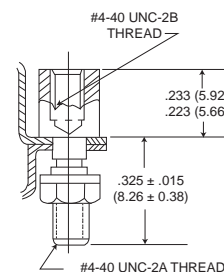
### Jackscrew/Jackpost Assembly



Standard (F172) Jackscrew  
(factory installed)



Low Profile (F173) Jackscrew  
(factory installed)

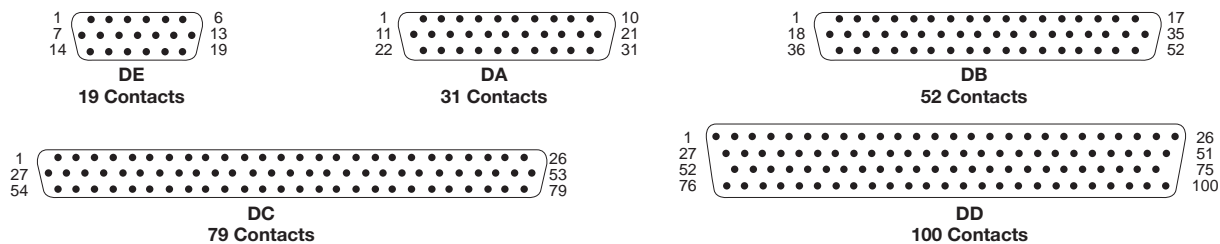


Jackpost (F171)  
Front Panel Connector Mounting Only

# Double Density D - .075" Contact Spacing 2D

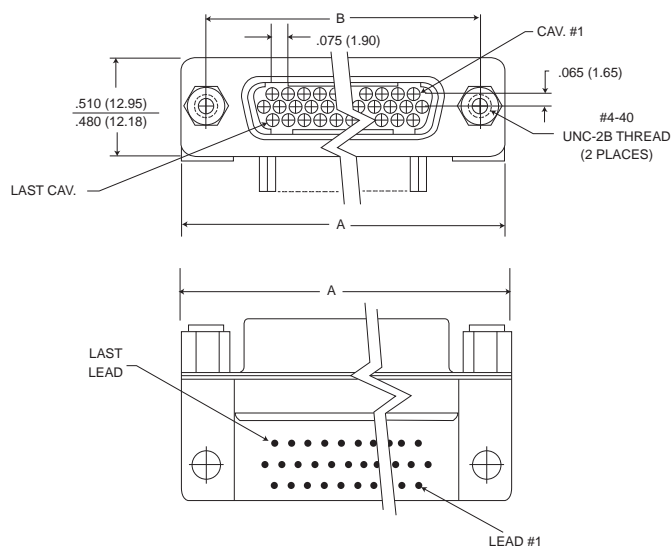
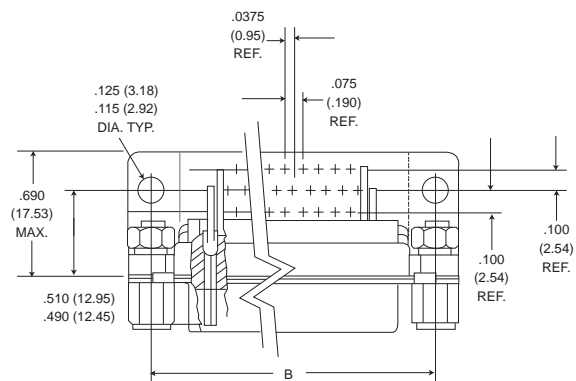
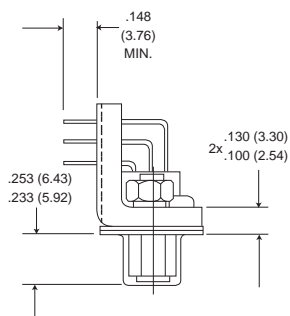
## Contact Arrangements

All views are pin front face. Use reverse order for socket side.



Cavity identification numbers are shown for reference only and do not appear on insulator front face. However they do appear on rear of insulator.

## 90° PCB Mounting - 3 Row



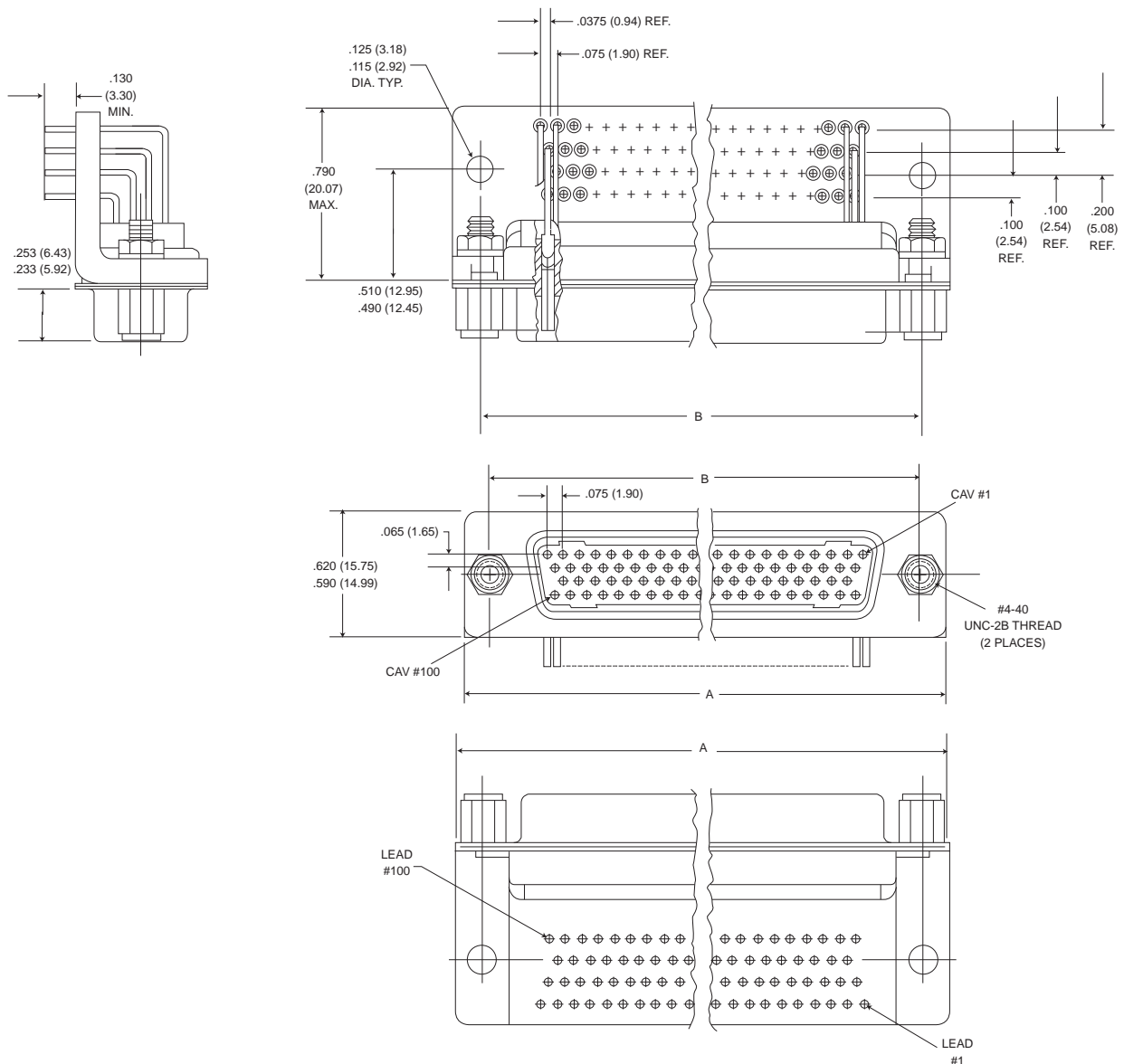
**PCB Termination Leads**  
(all contact arrangements)  
.024 (6.10) to .028 (7.11).

**Suggested finished PC hole**  
Size .033 (8.38) +\_ .003 (0.08)

Part Number by Shell Size	A ± .015 (0.38)	B ± .010 (0.25)	C Max.
2DE19SBRP	1.215 (30.86)	.984 (24.99)	.690 (17.53)
2DA31SBRP	1.540 (39.12)	1.312 (33.32)	.690 (17.53)
2DB52SBRP	2.090 (53.09)	1.852 (47.04)	.690 (17.53)
2DC79SBRP	2.730 (69.34)	2.500 (63.50)	.690 (17.53)



90° PCB Mounting - 4 Row

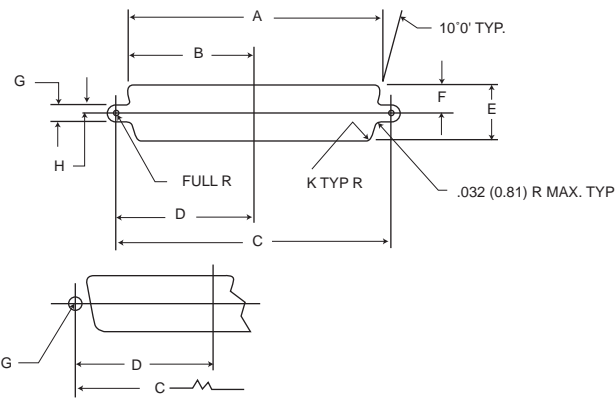


Part Number by Shell Size	A ± .015 (0.38)	B ± .010 (0.25)	C Max.
2DD100SBRP	2.635 (66.93)	2.406 (61.11)	.790 (20.07)

Contact Arrangements - Page B-56

Double Density D - .075" Contact Spacing  
2D

Panel Cutouts



Conn.	Mtg. Method	A ± .005 (0.13)	B ± .005 (0.13)	C ± .005 (0.13)	D ± .005 (0.13)	E ± .005 (0.13)	F ± .005 (0.13)	G ± .002 (0.05)	H ± .002 (0.05)	K ± .002 (0.05)
2DE	Front	.874 (22.20)	.437 (11.10)	.984 (24.99)	.492 (12.50)	.513 (13.03)	.257 (6.53)	.120 (3.05)	.060 (1.52)	.083 (2.11)
	Rear	.806 (20.47)	.403 (10.24)	.984 (24.99)	.492 (12.50)	.449 (11.40)	.225 (5.71)	.120 (3.05)	.060 (1.52)	.132 (3.35)
2DA	Front	1.202 (30.53)	.601 (15.26)	1.312 (33.32)	.656 (16.66)	.513 (13.03)	.257 (6.53)	.120 (3.05)	.060 (1.52)	.083 (2.11)
	Rear	1.134 (28.80)	.567 (14.40)	1.312 (33.32)	.656 (16.66)	.449 (11.40)	.225 (5.71)	.120 (3.05)	.060 (1.52)	.132 (3.35)
2DB	Front	1.743 (44.27)	.872 (22.15)	1.852 (47.04)	.926 (23.52)	.513 (13.03)	.257 (6.53)	.120 (3.05)	.060 (1.52)	.083 (2.11)
	Rear	1.674 (42.52)	.837 (21.26)	1.852 (47.04)	.926 (23.52)	.449 (11.40)	.225 (5.71)	.120 (3.05)	.060 (1.52)	.132 (3.35)
2DC	Front	2.391 (60.73)	1.196 (30.38)	2.500 (63.50)	1.250 (31.75)	.513 (13.03)	.257 (6.53)	.120 (3.05)	.060 (1.52)	.083 (2.11)
	Rear	2.326 (59.08)	1.163 (29.54)	2.500 (63.50)	1.250 (31.75)	.449 (11.40)	.225 (5.71)	.120 (3.05)	.060 (1.52)	.132 (3.35)
2DD	Front	2.297 (58.34)	1.149 (29.18)	2.406 (61.11)	1.203 (30.56)	.623 (15.82)	.312 (7.92)	.120 (3.05)	.060 (1.52)	.083 (2.11)
	Rear	2.218 (56.34)	1.109 (28.17)	2.406 (61.11)	1.203 (30.56)	.555 (14.10)	.278 (7.06)	.120 (3.05)	.060 (1.52)	.132 (3.35)

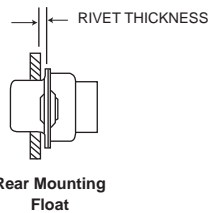
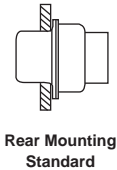
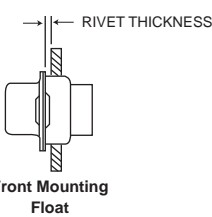
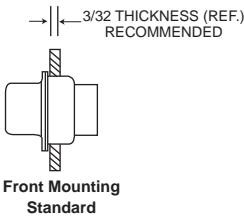
For contact part numbers, termination tooling and assembly see pages D-86 to D-88.

Panel Mounting



D

Microminiature



Dimensions shown in inches (mm)  
Specifications and dimensions subject to change

Environmentally sealed Double Density D connector offers superior vibration and moisture resistant characteristics.

The connector features superior environmental sealing which makes it suitable for any application where severe environmental protection is critical.

The connector's contact density design was achieved by using field proven, highly reliable Centipin/Centisocket contacts on .075" centers.

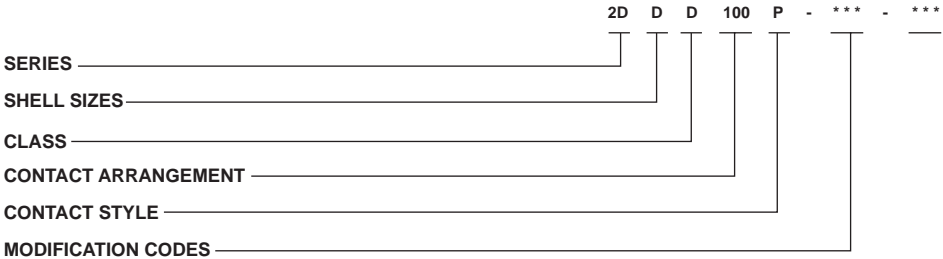
Designed to maximize positive contact mating, the contact positions are reversed, leaving the flexible Centipin contacts recessed in the insulator while the more ruggedized centisocket contacts are exposed.

This reversal of positions and the chamfered-entry of the sockets assures positive mating even under severe conditions where misalignment or mismatching of the connector might occur.

High reliability and protection of the contacts is assured through superior environmental sealing. The socket contacts as well as the Centipin contacts, which feature ITT Cannon's reliable Twist Pin contact design, are retained in the connector body.

A rubber grommet seal the signal wires and connector from external contaminants and moisture. The 90° PCB mounting 2D\*D is potted behind the grommet for additional sealing.

How to Order



- SERIES:**  
2D-Double Density "D"
- SHELL SIZES:**  
D\*  
Consult factory for size E, A, B, C
- CLASS:**  
D - Environmental

- CONTACT ARRANGEMENT**  
100\*  
Consult factory for sizes 19, 31, 52, 79
- CONTACT STYLE**  
P - Centi-Loc pin (receptacle shell config.)  
S - Centi-Lock socket (plug shell config.)

- MODIFICATION CODES**  
\*\*\* (Two 3-digit codes permissible)  
F0 - Connector without contacts  
(F0 will not be printed on the connector)  
6 - Environmental D 90° PCB mounting  
(socket configuration only)

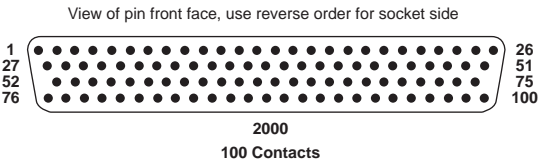
\* ITT Cannon is currently tooled in size D 100 contact version only.

Standard Data

**Contacts:**  
Insertable/removalbe gold-plated size 22 centi-loc crimp contacts (wire sizes #22 thru #26 AWG, stranded or solid).

MATERIALS AND FINISHES	
Housings	Aluminum alloy, yellow chromate over cadmium plate
Peripheral Seal	Silicone
Insulators	Diallyl Phthalate
Contacts Retainer	Nylon
Grommet	Polychloroprene (bonded to housing)

Contact Arrangement



Dimensions shown in inches (mm)  
Specifications and dimensions subject to change

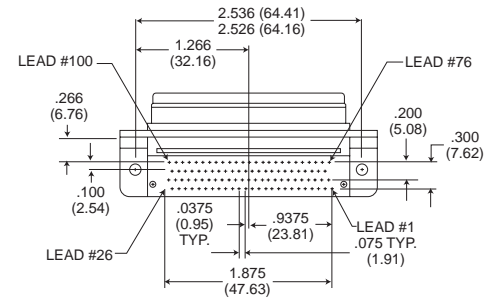
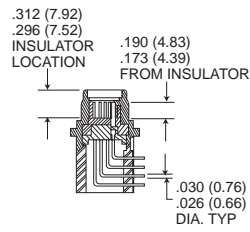
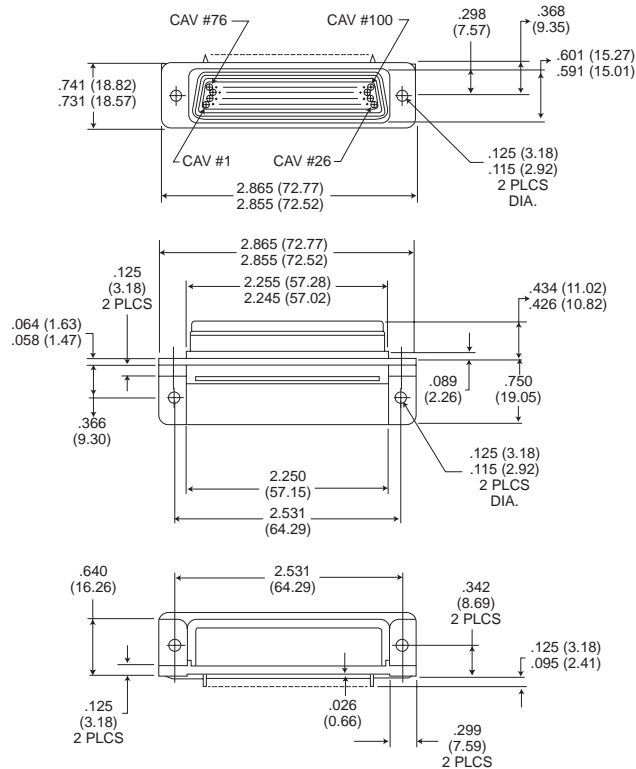


Microminiature

## Double Density D - .075" Contact Spacing 2D\*D

### Plug/Socket Connector

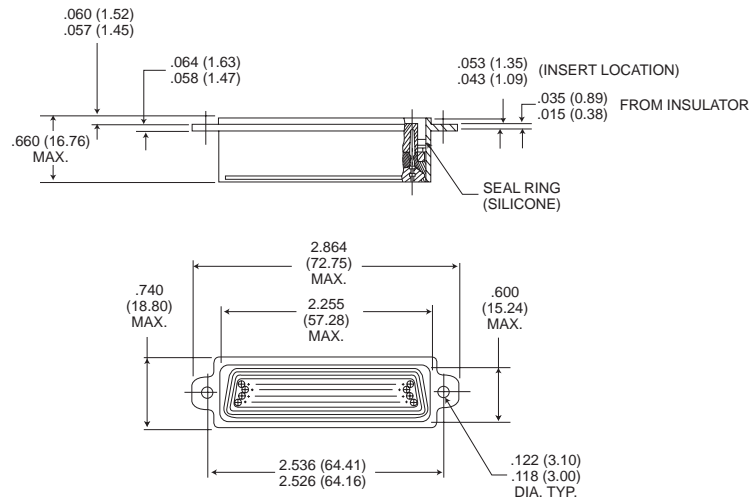
2DDD100S-6



All tolerance are  $\pm .010$  (0.25) unless otherwise noted.

### Receptacle/Pin Connector

2DDD100P

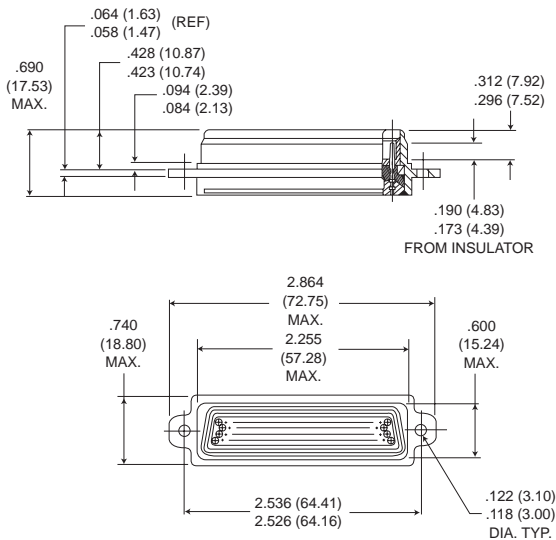


All tolerance are + .010 (0.25) unless otherwise noted.

### Standard Mount (continued)

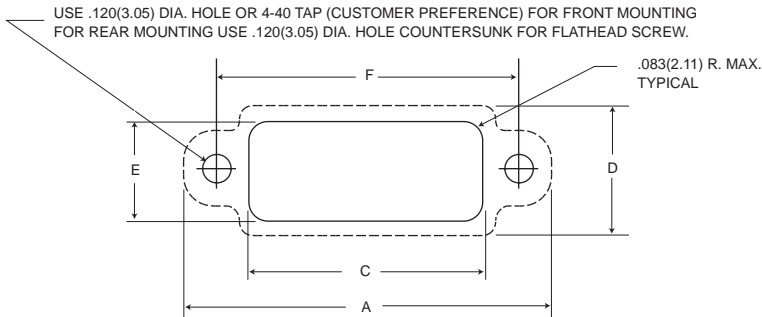
Plug/Socket Connector

2DDD100S



All tolerances are  $\pm .010$  (0.25) unless noted otherwise.

### Panel Cutout



Shell Size	A $\pm .010$ (0.25)	C Min.	D $\pm .010$ (0.25)	E Min.	F $\pm .006$ (0.15)
2DDD-100	2.859 (72.62)	2.265 (57.53)	.735 (18.67)	.610 (15.49)	2.531 (64.29)

Note: Panel cutout does not allow for potting cup clearance.

### Mounting Dimensions

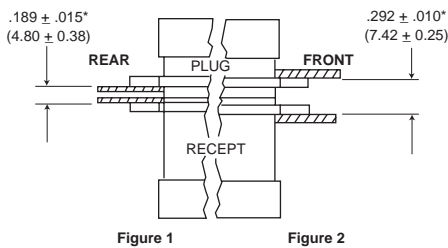


Figure 1

Figure 2

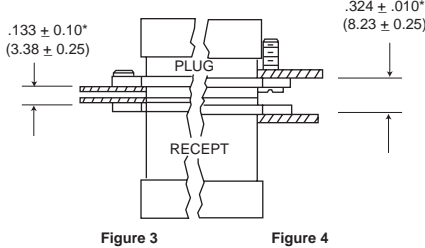


Figure 3

Figure 4

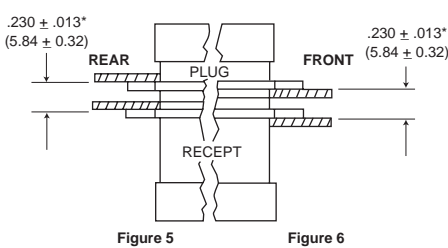


Figure 5

Figure 6

1. With both connectors rear mounted, use #4-40 flat head screws flush with the panel.
2. With both connectors front mounted, use #4-40 binder or pan head screws.
3. With both connectors rear mounted (float mounting on either plug or receptacle side), use #4-40 flat head screws, flush with the panels.
4. With both connectors front mounted (float mounting on either plug or receptacle side), use #4-40 binder or pan head screws.
- 5/6. With plug assembly front mounted and receptacle assembly rear mounted, use hardware from Figures 5 and 6. If float mounting is desired, use Figure 3 or 4 for the float mounted connector.

\*Dimensions between panels represent the recommended limit to be used in the design of the connector mounting method.

**NOTE:** Max. panel thickness is .125 (3.17) for non-floating rear panel mounting.

Dimensions shown in inches (mm)

Specifications and dimensions subject to change