

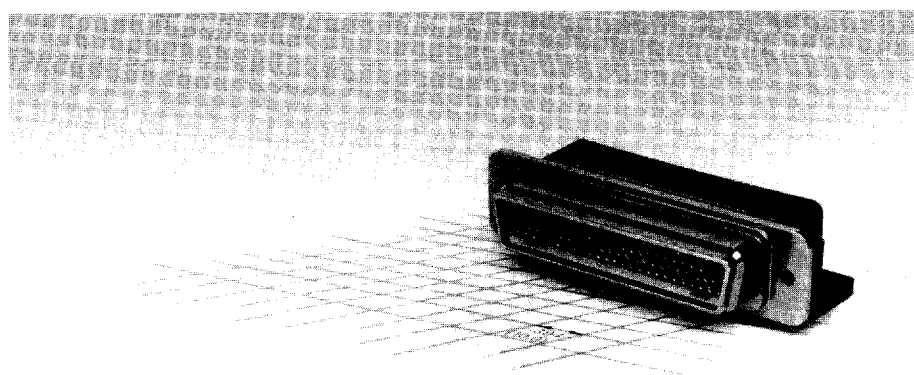
Environmentally sealed Double Density D connector offers superior vibration and moisture resistant characteristics.

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 seals 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

	2D	D	D	100	P	-	***	-	***
SERIES									
SHELL SIZES									
CLASS									
CONTACT ARRANGEMENT									
CONTACT STYLE									
MODIFICATION CODES									

SERIES:

2D – Double Density "D"

SHELL SIZES:

D*

Consult factory for sizes 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-Loc socket (plug shell config.)

MODIFICATION CODES:

*** (Two 3-digit codes permissible)

FO – Connector without contacts

(FO 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

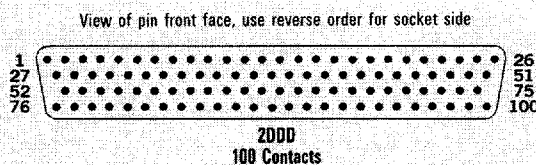
Contacts:

Insertable/removable 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
Contact Retainer	Nylon
Grommet	Polychloroprene (bonded to housing)

Contact Arrangement



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Dimensions are shown in inches (millimeters).
Dimensions subject to change.

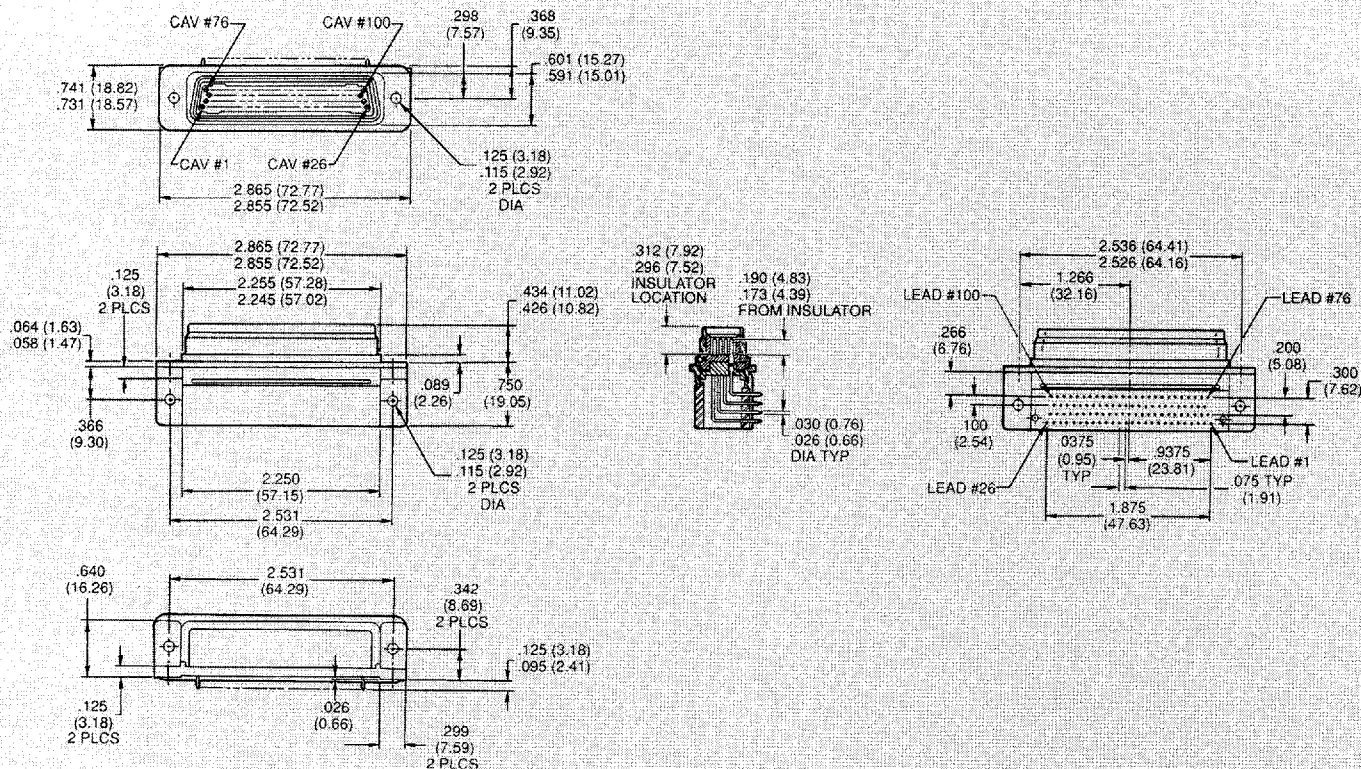
9005424 0000368 301

For technical assistance, price or delivery information, call your local technical sales office or distributor.

90° PCB Mounting

Plug/Socket Connector

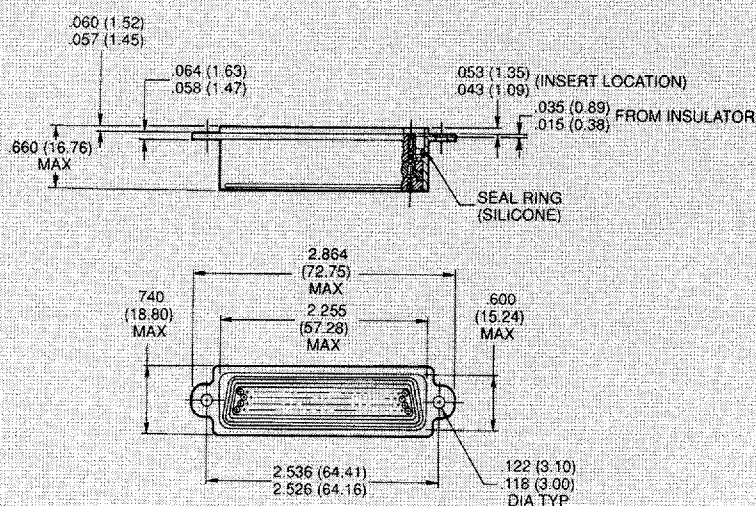
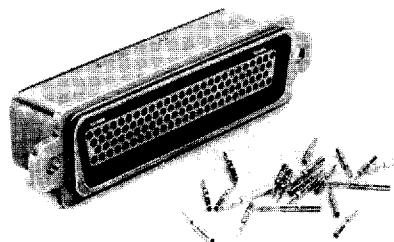
20DD100S-6

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

Standard Mount

Receptacle/Pin Connector

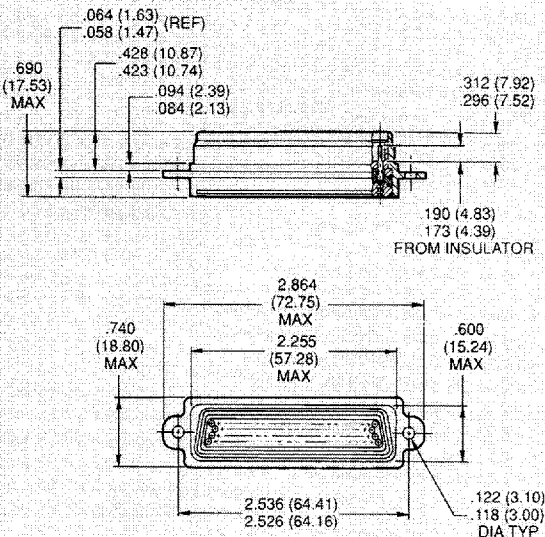
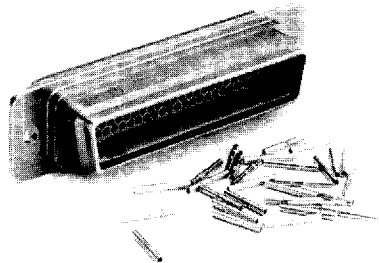
20DD100P

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

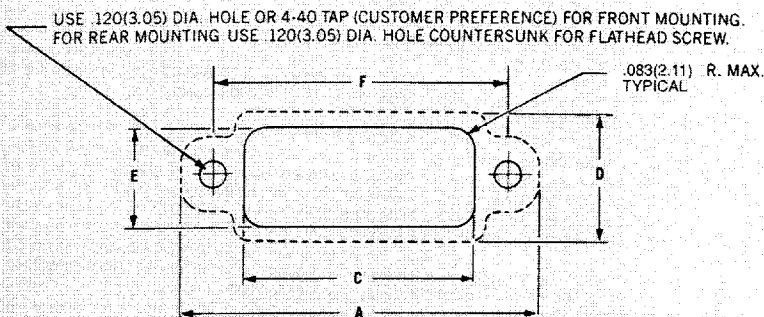
Standard Mount (Continued)

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

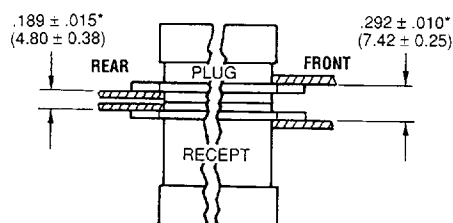


Figure 1

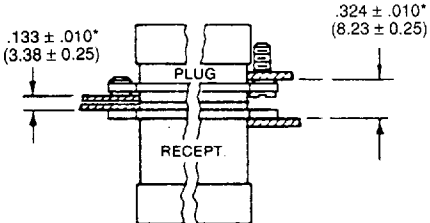


Figure 3

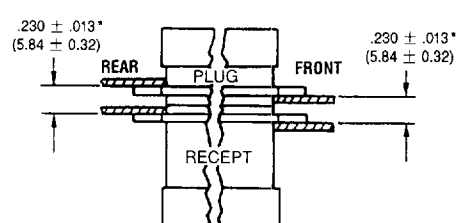


Figure 5

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.

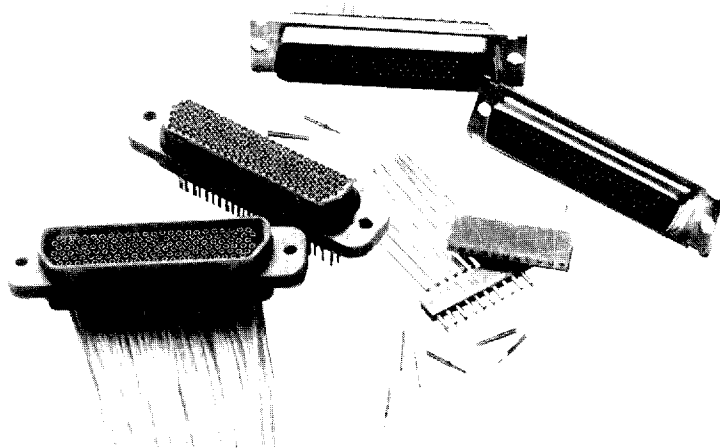
NOTE: Max. panel thickness is .125 (3.17) for non-floating rear panel mounting.

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Dimensions subject to change.

The Centi Line – .075" Contact Spacing



ITT Cannon Centi connectors are especially suitable for commercial applications such as computers, instrumentation, model airplane R/C equipment, calculators, communications and audio equipment. They are available in D subminiature size metal shell rectangular, plastic shell rectangular and strip configurations.

All Centi connectors use the reliable twist pin contact design in a 5 amp version terminated on .075 (1.91) and .100 (2.54) centers. This larger contact is crimp removable, so Centi Series connectors are available in connector kits and as bulk parts for customer assembly. Standard crimp and assembly tools are available.

The twist pin contact is recessed within the insulator housing while the rugged cylindrical socket is exposed. When the connector halves are mated, the chamfered sockets guide the pins into positive alignment. The Centipin™ contact, now under compression, forms a multi-point contact with the Centisocket™ to provide a high degree of reliability.

Microminiature Connectors

Standard Data

- Contact rating: 5 amps max. except BR Series (2 amps max.)
- Minimum contact centers: 0.075 (1.91).
- Wire sizes: #22 thru #26 AWG, stranded or solid.
- Contact termination: Multiple indent crimp.
- Contact retention: Crimp snap-in/removable.
- Contact materials and finish: Copper alloy, gold-plated per MIL-G-45204, Type II, Class 0, over copper flash.
- Mating/unmating force: 12 oz. per contact, max.

Performance Specifications

The table below summarizes the results of key tests performed in accordance with MIL-STD-202, where specified. Data is applicable to standard connectors with standard terminations. Variations may affect this data, so please consult the factory for further information on your requirements.

Test	Method	Criteria of Acceptance
Dielectric Withstanding Voltage	Method 301: 1,000 VAC at sea level 300 VAC at 70,000' altitude	No breakdown No breakdown
Insulation Resistance	Method 302, Condition A	5,000 megohms minimum
Thermal Shock	Method 107, Condition A: +55°C to +85°C	No physical damage
Physical Shock	Method 213, Condition I: 100 G's, 3 axes, 6 millisecond duration sawtooth pulse	No physical damage No loss of continuity > 1μsec
Vibration	Method 204, Condition B: 15 G's, 10-2,000 Hz, 12 hours	No physical damage No loss of continuity > 1μsec
Durability	500 cycles of mating and unmating, 500 CPH max.	No mechanical or electrical defects
Moisture Resistance	Method 106, Omit 7a and 7b	Insulation resistance > 100 megohms
Salt Spray	Method 101, Condition B: 48 hours	Shall be capable of mating and unmating, and meet contact resistance requirements
Contact Resistance	Method 307: At 5 amps	9 milliohms maximum
Contact Retention	—	4 lb. minimum axial load

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Dimensions subject to change.