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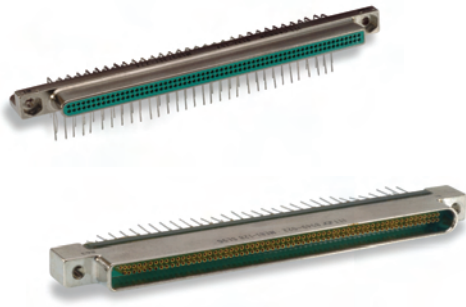
Interconnect Solutions
Cannon, VEAM, BIW

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



Engineered for life

Micro Edgeboard - .050" Contact Spacing MEB



The Micro Edgeboard (MEB) connector series provides a combination of high density and high reliability for applications in airborne and space systems, computers and peripherals, and industrial /commercial control systems. This series incorporates the proven MICROPIN™/MICROSOCKET™ contact. This contact has an outstanding record of high reliability and millions of contacts are in use in various applications where electrical interconnects are used.

The MEB has machined aluminum shells for ruggedness, diallyl phthalate insulator for top electrical performance and a 36-position polarization key system to prevent cross plug-

ging. Contacts are on .050 (1.27) center spacings. A variety of termination types are available, including 90° or right angle pigtailed for multi-layered P.C. boards, "coke bottle" termination for double-sided P.C. boards. Harnessing capability is also available for both pin and socket sides.

The MEB, including the SBR 90° or right angle variation available for multi-layer boards, can be mounted on the female (daughter) side of double or single-sided P.C. boards. The mating male (mother) board side can have the terminations formed to meet the application demands.

Conforms to MIL-C-55302/120 thru 123. (not qualified)

Specifications

MATERIALS AND FINISHES

Shell:	6061-T6 Aluminum Alloy per QQ-A-200/8 or QQ-A-225/8, electroless nickel per SAE AMS-C-26074, Class 4, except .0010 to .0015 (0.03 to 0.04) thick or conversion coating per MIL-C-5541, Class 3, color gold.
Contact, Pin and Socket:	Copper Alloy, 50 microinch gold per ASTM B488, Type II, Code C, Class 1.25
Jackcrew/Jackpost:	303 stainless steel, passivated per QQ-P-35.
Insulator:	Glass-filled diallyl phthalate per MIL-M-14, Type SDG-F, color green Polyester per MIL-M-24519, Type GPT-30F, color black available for MEB-128 upon request.

TERMINATION TYPES

Consult factory for stranded wire lead modifications codes.

MECHANICAL FEATURES

Size or Length:	2 sizes
Coupling:	Friction/Jackscrew
Polarization:	Shells, polarizing keys (36 positions)
Contact Spacing Centers:	.050 (1.27)
Shell Styles:	Plug and receptacle

How to Order

Not applicable for printed circuit board configurations shown on pages D-67 & D-68.



RoHS COMPLIANCE

SERIES PREFIX

CONTACT SPACING

LAYOUT

CONTACT TYPE

TERMINATION MODIFICATIONS

LEAD LENGTH

OTHER MODIFICATIONS

R

MEB

1 - 128

P

* * * *

SERIES PREFIX

MEB - Micro edgeboard, plug with twist pin contacts or recept. with microsocket contacts.

CONTACT SPACING

1 - .050 (1.27) centers 128/184
2 - .100 (2.54) centers 64/92
(alternate contact holes)

LAYOUT

64, 92, 128, 184

CONTACT TYPE

P - Pin
S - Socket

* For other contact spacing accommodations consult customer service.

TERMINATION MODIFICATIONS

L - Uninsulated solid wire
H - Insulated stranded round harness wire
S - Solder pots
BR - PC board right angle, socket side only

LEAD LENGTH

Consult factory for wire lead modification codes.

OTHER MODIFICATIONS

Consult factory



D

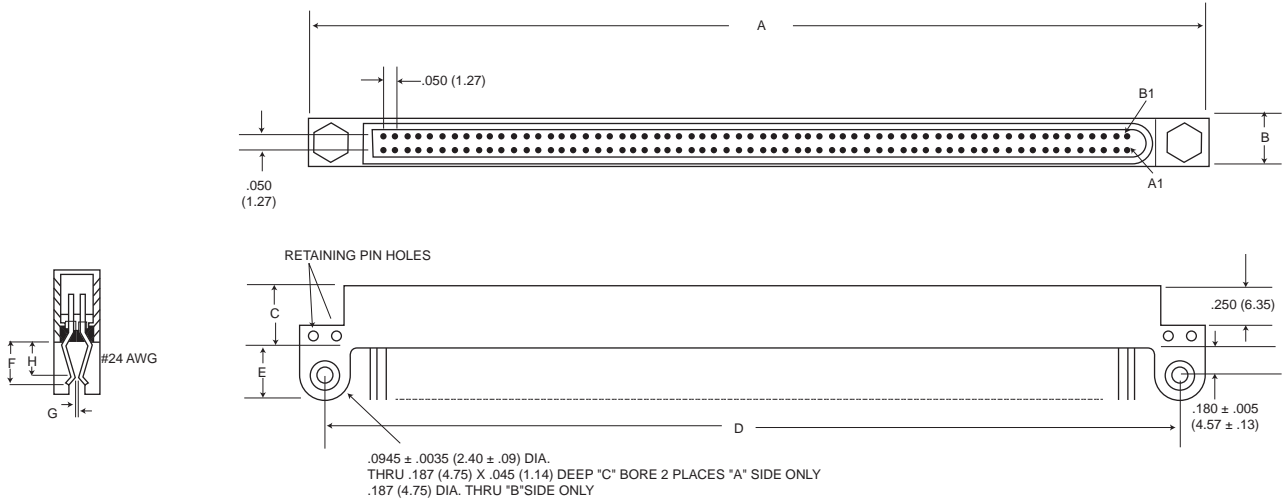
Microminiature



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

Plug (Mother Board)

MEB1-12BS

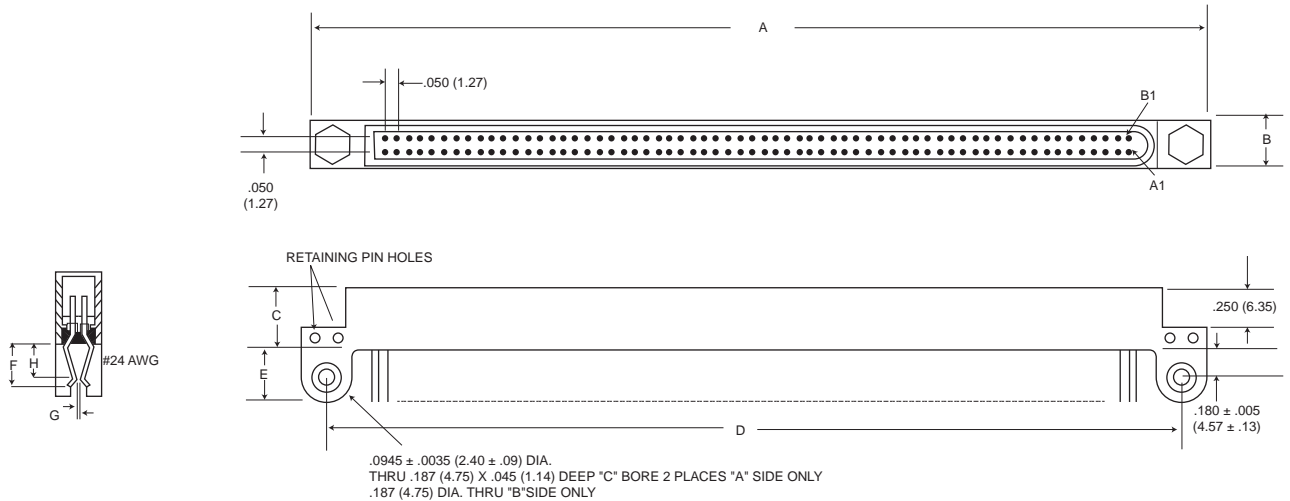


Part No.	Weight oz. (gm.) Max.	A ±.015 (0.38)	B ±.010 (0.25)	C ±.010 (0.25)	D ±.010 (0.25)	E ±.010 (0.25)	F Max.	G* Max.	H ±.020 (0.51)
128S	.5 (14.17)	3.950 (100.33)	.250 (6.35)	.400 (10.16)	3.700 (93.98)	.300 (7.62)	.280 (7.11)	.030 (0.76)	.200 (5.08)
128SBR	.5 (14.17)	3.950 (100.33)	.250 (6.35)	.400 (10.16)	3.700 (93.98)	.300 (7.62)	.280 (7.11)	.030 (0.76)	.200 (5.08)

*Will accept up to .093 (2.36) thick P.C. Board with shell modifications.

Receptacle (Daughter Board)

MEB1-12BS



Part No.	Weight oz. (gm.) Max.	A ±.015 (0.38)	B ±.010 (0.25)	C ±.010 (0.25)	D ±.010 (0.25)	E ±.010 (0.25)	F Max.	G* Max.	H ±.020 (0.51)
128S	.5 (14.17)	3.950 (100.33)	.250 (6.35)	.400 (10.16)	3.700 (93.98)	.300 (7.62)	.280 (7.11)	.030 (0.76)	.200 (5.08)
128SBR	.5 (14.17)	3.950 (100.33)	.250 (6.35)	.400 (10.16)	3.700 (93.98)	.300 (7.62)	.280 (7.11)	.030 (0.76)	.200 (5.08)

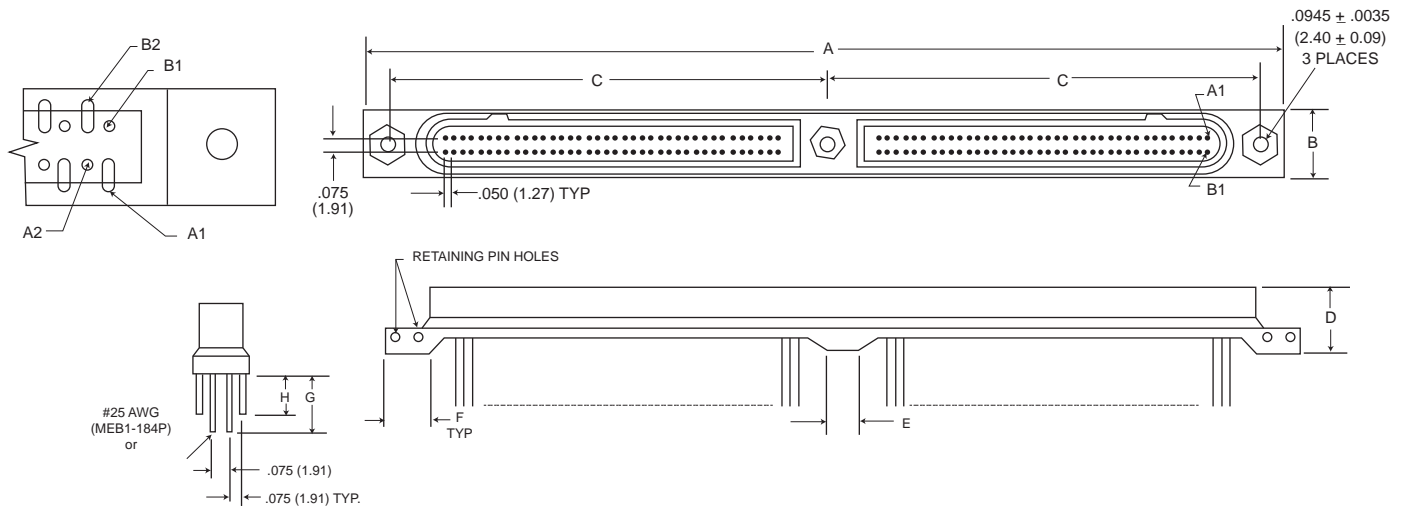
*Will accept up to .093 (2.36) thick P.C. Board with shell modifications.



Micro Edgeboard - .050" Contact Spacing MEB

Plug (Mother Board)

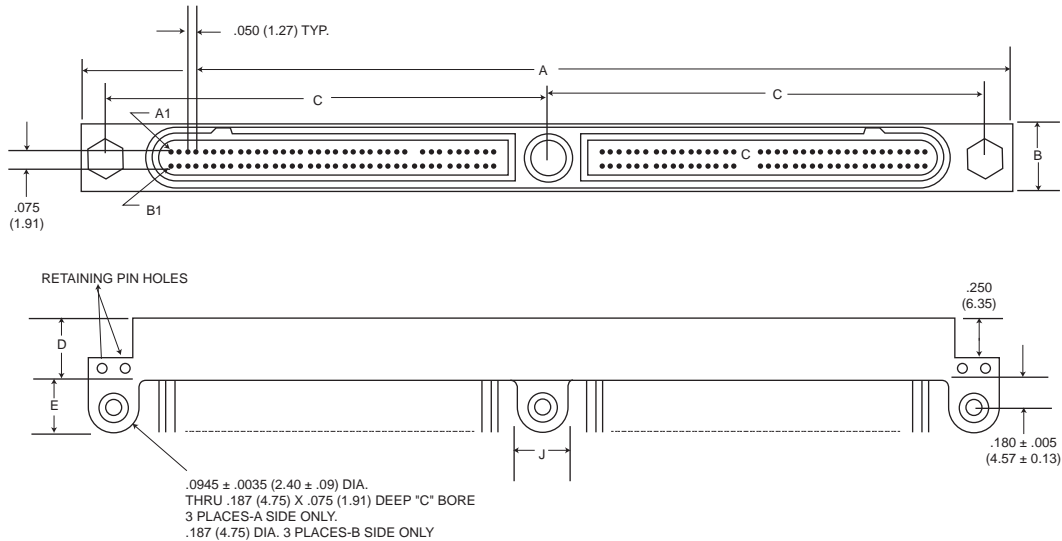
MEB1-184P



Part No.	Weight oz. (gm.) Max.	A	B	C	D	E	F	G	H
		±.015 (0.38)	±.010 (0.25)	±.005 (0.13)	±.010 (0.25)	±.010 (0.25)	±.010 (0.25)	±.025 (0.64)	±.025 (0.64)
184P	1.0 (28.35)	5.800 (147.32)	.343 (8.71)	2.775 (70.49)	.400 (10.16)	.250 (6.35)	.280 (7.11)	.350 (8.89)	.275 (6.99)

Receptacle (Daughter Board)

MEB1-184S



Part No.	Weight oz. (gm.) Max.	A	B	C	D	E	F	G	H	J
		±.015 (0.38)	±.010 (0.25)	±.005 (0.13)	±.010 (0.25)	±.010 (0.25)	Max.	Max.	±.020 (0.51)	±.010 (0.25)
184S	1.0 (28.35)	5.800 (147.32)	.343 (8.71)	2.775 (70.49)	.400 (10.16)	.300 (7.62)	.280 (7.11)	.030 (0.76)	.200 (5.08)	.250 (6.35)
184SBR	1.0 (28.35)	5.800 (147.32)	.343 (8.71)	2.775 (70.49)	.400 (10.16)	.300 (7.62)	.280 (7.11)	.030 (0.76)	.200 (5.08)	.250 (6.35)

All round pigtail #25 AWG wire termination designs available for the MEB1-12B receptacle will apply on the MEB1-184 series also.

*Will accept up to .093 (2.36) thick P.C. Board with shell modifications.



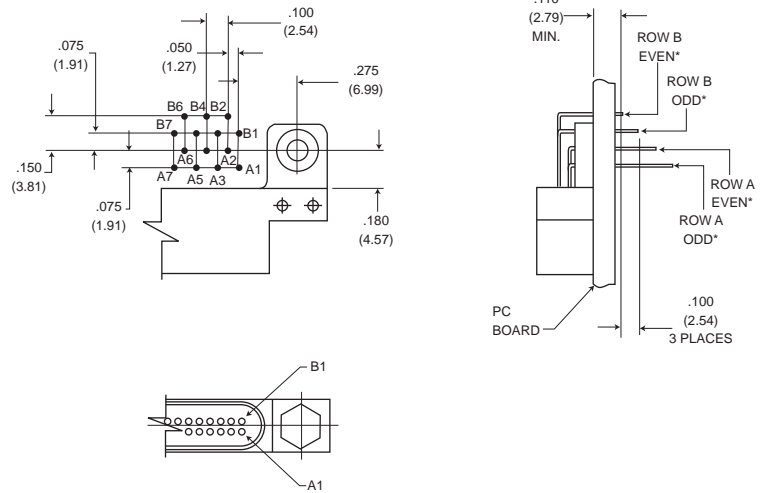
Dimensions shown in inches (mm)
Specifications and dimensions subject to change

www.ittcannon.com

Microminiature

PC Board Right Angle

MEB1-128SBR



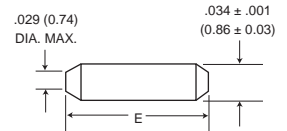
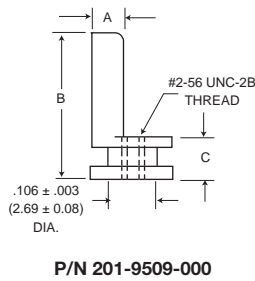
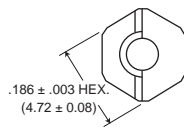
Keying Accessory - Key and Retaining Pin

Polarizing Hardware Kit

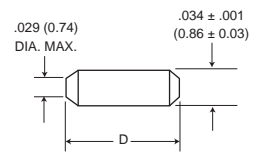
MEB-128-P/N 320-9514-003

MEB-184-P/N 320-9514-002

Contains 2 polarizing keys and 4 spiral pins.



MEB-184
P/N 980-0004-129



MEB-128
P/N 980-0003-879

A	B	C	D	E
± .003 (0.08)	± .005 (0.13)	± .003 (0.08)	± .010 (0.25)	± .010 (0.25)
.081 (2.06)	.325 (8.26)	.089 (2.26)	.250 (6.35)	.313 (7.95)



Microminiature

Micro Edgeboard - .050" Contact Spacing MEB

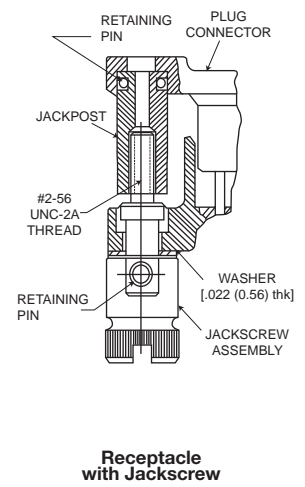
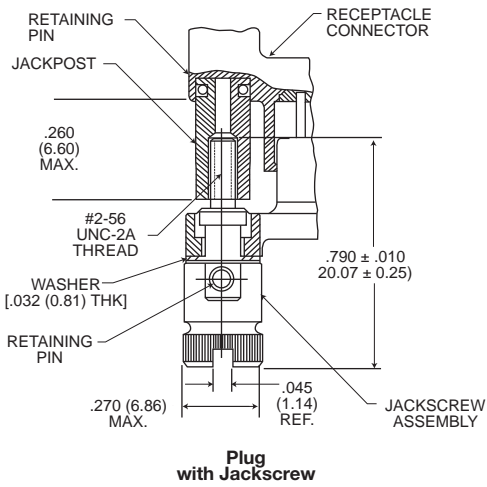
Jackscrew/ Jackpost Assembly (MEB 64 & 128 Sizes Only)

Jackpost Kit

MEB plug or receptacle-P/N 320-9514-001
Contains 2 bushings and 4 spirals pins

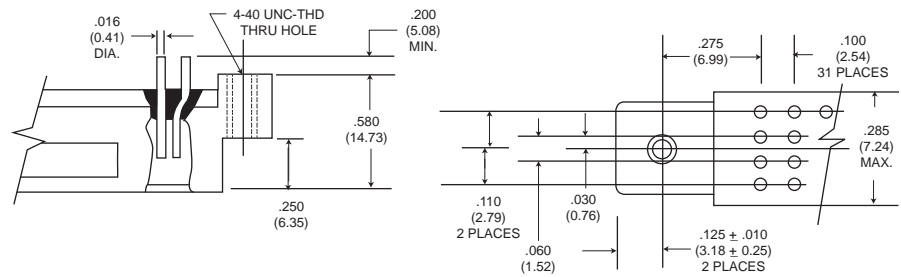
Jackscrew Kit

MEB plug-P/N 320-9521-001
MEB receptacle-P/N 320-9521-000
Contains 2 jackscrew assemblies



Special Variations

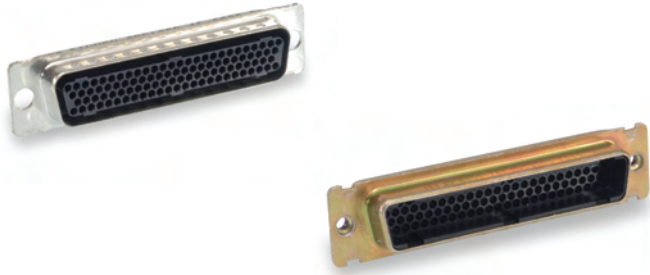
Alternative Receptacle Configuration



Microminiature



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



The Cannon Centi connectors are especially suitable for commercial applications such as computers, instrumentation, 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. The Centi contact is crimp removable, connectors are available 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.

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 ASTM B488, Type II, Code C, Class 1.25.
- Mating/unmating force: 12 oz. per contact, max.

Performance Data

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 > 1/μsec
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 (after 10 insertion extraction cycles)

Double Density D - .075" Contact Spacing 2D

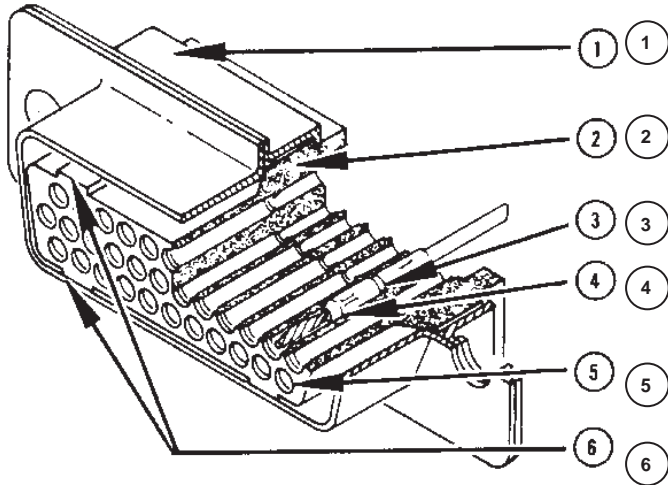
The Double Density D is a rectangular connector in the popular D Subminiature shell configuration featuring double the contact density in the same insert area. The Double Density D connector can thus accommodate up to 100 contacts instead of 50.

This double contact density is achieved by using field-proven, highly reliable Centipin™/Centisocket™ contacts on .075 (1.91) centers, in the positive contact alignment design. In this design contact

positions are reversed; the flexible Centipin™ contacts are recessed in the insulator and the more rugged Centisocket™ contacts are exposed. This reversal of positions, and the chamfered-entry of the sockets, assures positive mating even under severe misalignment conditions. The contacts are retained in the monobloc insulator by a resilient internal shoulder that snaps into a locking groove in the contact. The chamfered front of the contact will not damage the internal shoulder in the insulator.

Contacts are crimp removable type.

The Double Density D connector is available in the five popular shell and insert sizes accommodating up to 100 contacts. These connectors mate exclusively with other Double Density D connectors. A wide range of accessories can be used, including junction shells, potting cups, switching shells, guide pin plates, and dust caps.



1. STANDARD D HARDWARE-

Including full range of D-Subminiature accessories

2. ONE PIECE MONOBLOCK INSULATOR-

glass-filled nylon material

3. CONTACT RETENTION-

thermoplastic internal shoulder snaps into a locking groove in the contact.

Retention Force: 8 lbs. min. initially, 4 lbs. min. after 10 cycles.

4. TWIST PIN CONTACTS-

seven outer wiping surfaces assure electrical continuity even under severe shock and vibration

5. POSITIVE CONTACT ALIGNMENT-

flexible pin is recessed in insulator cavity and rugged socket is exposed

6. GUIDE-IN KEYS AND KEYWAYS-

assure alignment during mating and prevent scooping

Specifications

WEIGHT

Part Number by shell size	Weight (in gr.)		Weight (in oz.)	
	Less With Contacts	Less With Contacts	Less With Contacts	Less With Contacts
2DE19P	4.05	5.02	.142	.177
2DE19S	3.75	5.17	.133	.182
2DA31P	5.20	6.78	.183	.239
2DA31S	4.90	7.22	.173	.255
2DB52P	8.75	11.40	.308	.402
2DB52S	7.15	11.05	.252	.390
2DC79P	11.70	15.73	.413	.555
2DC79S	9.70	15.62	.342	.551
2DD100P	12.85	17.95	.453	.633
2DD100S	10.95	18.45	.386	.651

MATERIALS AND FINISHES

*Shell	- Steel, cadmium plated with yellow chrome supplementary coating
Mounting Hardware and Float Mounts	- Stainless steel
Insulator	- Glass-filled nylon
Contacts	- Copper alloy, gold plate
Alternate finish,	- A106 Gold over brass
Modification Code	A156 Gold over brass A197 Tin/Lead over steel

*Brass non-magnetic also available

MECHANICAL FEATURES

Sizes	- Five shell sizes: E, A, B, C, and D
Coupling	- Friction or jackscrew
Polarization	- Keystone-shaped shells
Contact Spacing	- .075 (1.91)
Contact Termination	- Crimp snap-in

How to Order



RoHS COMPLIANT

SERIES

SHELL SIZE

FLOAT MOUNTS

CONTACT ARRANGEMENT

CONTACT TYPE

TERMINATION

MODIFICATION

NOTE: Connectors may be ordered less contacts by adding the mod callout "FO" at end of number. Contacts are then supplied in bulk form.

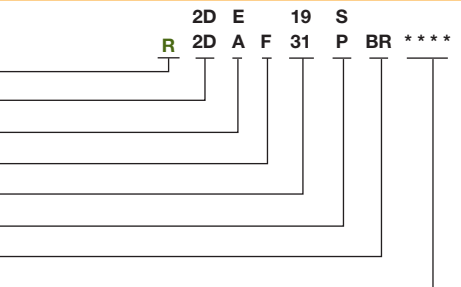
CONTACT ARRANGEMENT

19, 31, 52, 79 and 100

CONTACT TYPE*

P - Pin

S - Socket



SERIES

2D - Double Density D

SHELL SIZE

E, A, B, C and D

FLOAT MOUNTS

Omit if not required

TERMINATION

BR - 90° right angle PCB mounting

(For BR Series use "P" to designate jackpost)

MODIFICATION

F171 - Jackpost assembly

F172 - Standard jackscrew

F173 - Low profile jackscrew

For other modifications consult factory

* Accommodates AWG #26 thru #22



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