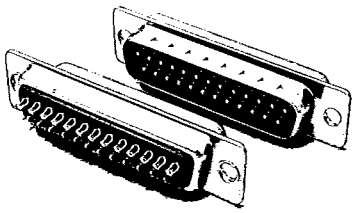
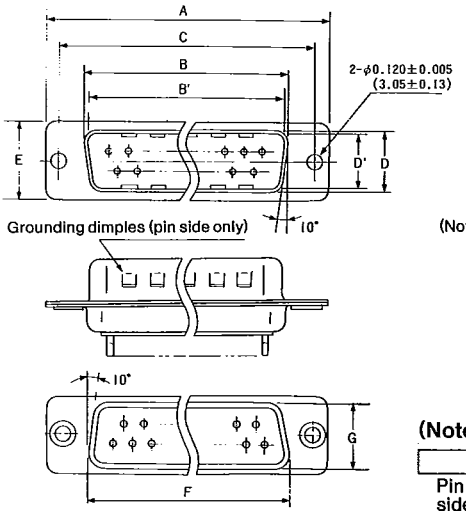
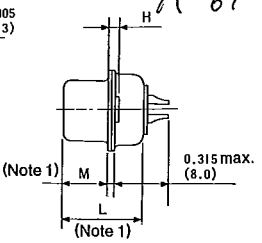
SOLDER TERMINATION·D*-F-N TYPE

A-17-03
A-17-05
A-61-11



The connector basically, is the same as the standard type D*-N (with stamped contacts) with solder-pots. The shell is nickel plated, and grounding dimples are provided on the front shell on the pin side.





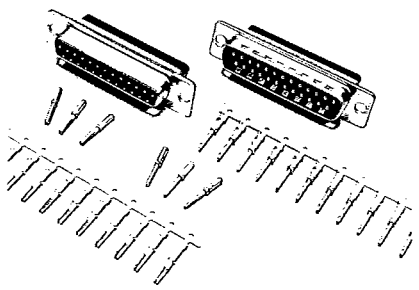
(Note 1) Dimensions M and L

	M	L±.031 (±0.8)
Pin side	.236 (6.0)	.421 (10.7)
Socket side	.240 (6.1)	.425 (10.8)

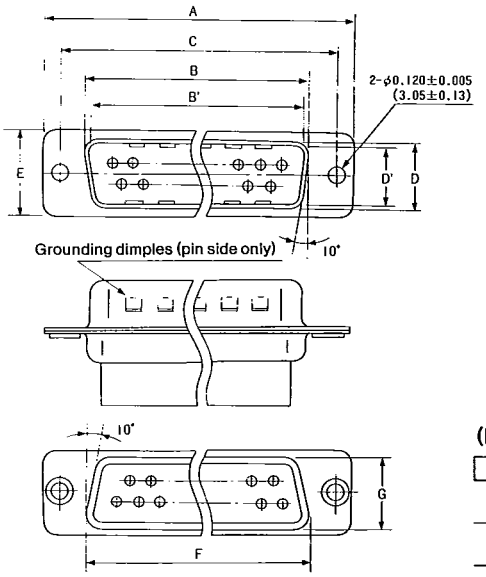
- **Dimensions and specifications** . . . See pages 22 and 23.
- **Materials/Finishes**
  Shell: Steel/Nickel plate
  Insulator: Polyester, UL94V-0, black
  Contacts: Copper alloy/Gold over nickel

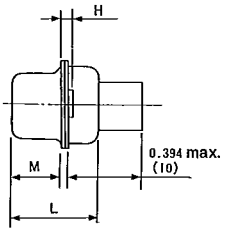
No. of Contacts	Part Number	
	Pin side	Socket side
9	**DE-9PF-N**	**DE-9SF-N**
15	**DA-15PF-N**	**DA-15SF-N**
25	**DB-25PF-N**	**DB-25SF-N**
37	**DC-37PF-N**	**DC-37SF-N**
50	**DD-50PF-N**	**DD-50SF-N**

CRIMP AND PCB THROUGH HOLE TERMINATIONS·D*U-F TYPE



D*U EMI control connectors have crimp or printed circuit contacts. A manual crimping tool for easy wire connection and a semiautomatic crimping machine for higher volume terminations are available.
Optional contacts can be inserted through the rear of the insulator after termination.





(Note 1) Dimensions M and L

	M	L±.031 (±0.8)
Pin side	.236 (6.0)	.421 (10.7)
Socket side	.240 (6.1)	.425 (10.8)

- **Materials/Finishes**
  Shell: Steel/Nickel plate
  Insulator: Glass-filled synthetic resin, UL94V-0, black
  Contacts: Copper alloy/Gold over nickel

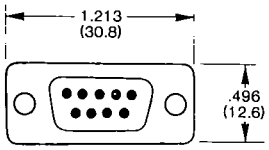
No. of Contacts	Part Number	
	Pin side	Socket side
9	**DEU-9PF-FO**	**DEU-9SF-FO**
15	**DAU-15PF-FO**	**DAU-15SF-FO**
25	**DBU-25PF-FO**	**DBU-25SF-FO**
37	**DCU-37PF-FO**	**DCU-37SF-FO**
50	**DDU-50PF-FO**	**DDU-50SF-FO**

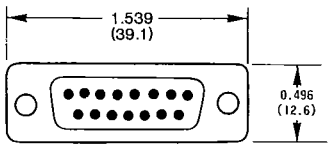
FEATURES

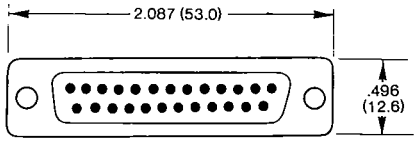
A-17-03
A-17-05

• Five different shell sizes and numbers of conductors
The connector housing is compact and rectangular. The contacts and insulators are contained in a rugged steel shell. There are five shell sizes (E, A, B, C, and D), respectively with standard contact counts of 9, 15, 25, 37, and 50. Special layouts to accept coaxial, high-voltage, and high-current contacts are also available.

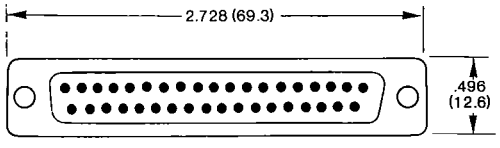
E	A	Shell Size:
9	15	Number of Conductors:



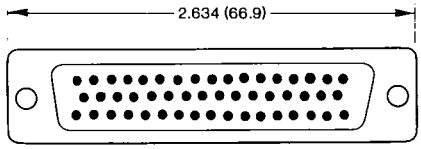




B	Shell Size:
25	Number of Conductors:



C	Shell Size:
37	Number of Conductors:

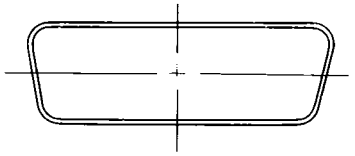


D	Shell Size:
50	Number of Conductors:

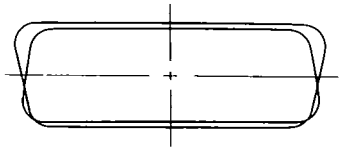
Special Layouts (D*M Type)

• Fail-Safe Polarizing Mechanism
The shell connecting part is keystone trapezoidal which inherently prevents incorrect coupling.

Can be mated



Cannot be mated



• Official Standards
D Sub connectors conform to many international standards Including:

Japan Industrial Standards
- JIS-C-6361
- JIS-C-6366
- JIS-C-6367

Japan Defense Agency Standards
- NDSXC 6116
- DSP C 6242

US Military Standards
- MIL-C-24308

• Shell Type
The shell profile comes in a panel-mounting standard type and floating type (the latter aids in rack-to-panel connection).

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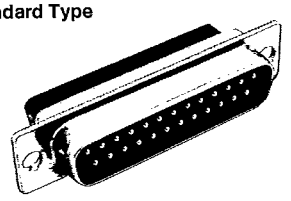
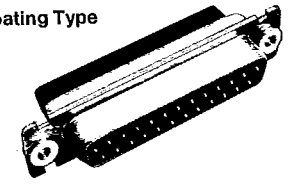
A-65-07

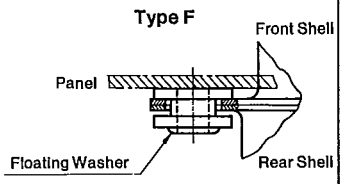
Standard Type



Floating Type

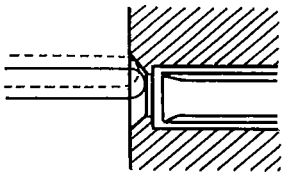


Type F



The floating washer moves .030 in. (0.4 mm) in any direction relative to the center (℄).

• Close Entry Construction
Socket insulators have a closed entry construction which prevents entry of oversized contacts or probes.



• Compatibility
Individual connector types are interchangeable as are the accessories.

■General Specification (Principal Performance)

Division	Item	Performance					
		D*		D*M	D*U		
		Stamped Contacts	Machined Contacts		Stamped Contacts	Machin	
Electrical Performance	Rated Current	5A					
	Dielectric Strength (See Level)	AC 1250 V r.m.s			AC 1000 V r.m.s		
	Insulation Resistance	5000 M-ohm or greater					
	Contact Resistance	2.7 m-ohm or less (5.0 m-ohm or less after the life and after salt spray). Test current: AWG No. 20, 7.5 a; AWG No. 22, 5; AWG No. 24, 3. *Through hole (PCB mounted connectors not applicable).					
Mechanical Performance	Contact Force	Mating force: 28.4~408 g Unmating force: 28.4~272 g	Mating force: 28.4~340 g Unmating force: 28.4~227 g		Mating force: 28.4~408 g Unmating force: 28.4~272 g		
	Connector Mating/Unmating Force	Mating force: (408 g × number of contacts) or less. Unmating force: (272 g × number of contacts) or less.	Mating force: (340 g × number of contacts) or less. Unmating force: (227 g × number of contacts) or less.		kg or less	Stamped Contact	Machin
						Mating Force	Unmating Force	Mating Force
					9	3.7	2.4	3.1
					15	6.1	4.1	5.1
					25	10.2	6.8	8.5
					37	15.1	10.1	12.6
					50	20.4	13.6	17.0
	Contact Retention Force (kg or larger)	D*		D*M	D*U		
		Stamped Contacts	Machined Contacts		Stamped Contacts		Mach
		4.5		4.1	3.6		4.5
	Vibrations	(1) The current (discontinuity) shall not exceed one (1) microsecond. (2) Shall pass the dielectric strength test at sea level. (3) Parts shall be free of cracks, damage, and looseness.					

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A-17-05
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A-65-07

Contacts	D* MA	D* SP	Description
		1A	
		AC 600 V r.m.s	There shall be no breakdown discharge after the test voltage (see at left) is applied for one minute between adjacent contacts and between shell and closest contact.
		1000 M-ohm or greater	The value specified at the left shall be met when 500 VDC is applied and measured between adjacent contacts and between contact and the shell.
		15 m-ohm or less (30 m-ohm or less)	Mate pin and socket contacts terminated to wire, apply a test current, then measure by the voltage drop method. The value at the left shall be satisfied.
Mating force: 28.4~340 g Unmating force: 28.4~227 g			Mate and unmate the largest test pin (1.041 $\phi^{+0}_{-0.003}$) three times. Measure mating/unmating forces during the third cycle. Mate and unmate the smallest test pin (0.991 $\phi^{+0}_{-0}{}^{.003}$) and measure mating/unmating forces during first cycle. The value at the left should be satisfied.

Contact Unmating Force	Mating force: (340 g × number of contacts) or less. Unmating force: (222 g × number of contacts) or less.	kg or less	Mating Force	Unmating Force	Description
2.0		9	3.1	2.0	Mate and unmate the connector on the pin side while completely anchoring the connector on the socket side. The measured mating and unmating forces shall satisfy the values at the left.
3.4		15	5.1	3.4	
5.7		25	8.5	5.7	
8.4		37	12.6	8.4	
11.3					

Contacts	D* MA	D* SP	Description
	4.5	1.0	Apply an axial load to the contacts
			Vibration to supply full sine wave .06 (1.52 mm) in total amplitude or 10 G, whichever is smaller, over a frequency range 10 to 500 Hz. The full frequency range is applied both ways for 15 minutes. This cycle is repeated 12 times each in the three axial directions. All contacts to be connected serially and apply a 100-mA current during the test.

General Specification (Principal Performance)

Division	Item	Performance			
		D*		D*M	
		Stamped Contact	Machined Contact		Stamped Contact
Mechanical Performance	Contact Retention Force (kg or larger)	4.5		4.1	3.6
	Shock	(1) Current discontinuity may not exceed one (1) microsecond during the test. (2) Shall pass the dielectric strength test at sea level. (3) Parts shall be free of cracks, damage, and looseness.			
	Life	(1) Contact resistance 5 m-ohm or less. (D* SP: 30 m-ohm or less.) (2) Contact mating/unmating force (3) Connector mating/unmating force — Refer to the previous section.			
Environmental Performance	Temperature Cycle		D*	D*M	
		Low Temperature	−67°F (−55°C)	−85°F (−65°C)	
		High Temperature	+257°F (+125°C)	+302°F (+150°C)	
		(1) The connector shall be free of cracks and damage. (2) Shall pass the dielectric strength test at sea level.			
	Humidity Resistance	Immediately after test (1) Insulation resistance: 1 M-ohm or higher. (2) Dielectric strength: 600 VAC rms or higher. (D* SP: 400 VAC rms or higher.) After storing for 24 hours (1) Insulation resistance: 1000 M-ohm or higher.			
	Corrosion	(1) There shall be no detrimental corrosion that affects the base metal and connector (2) Contact resistance: 5 m-ohm or less. (D* SP: 30 m-ohm or less.)			

D* U Machined Contact	D* MA	D* SP	Description
4.5	4.5	1.0	Apply an axial load to the contacts.
			Apply an impact of 50 G for 11 ms ten times each in three axial directions during acceleration. All contacts connected in series, and apply a 100-mA current during the test.
			The values specified at the left shall be satisfied after mating and unmating male and female connectors 500 times.
D* U	D* MA	D* SP	Increase and decrease the temperature to the temperatures specified at the left 30 minutes each continuously for five cycles.
−85°F (−65°C)	−85°F (−65°C)	−67°F (−55°C)	
+257°F (+125°C)	+302°F (+150°C)	+221°F (+105°C)	
			Stored at 65°C and 90 to 98% relative humidity for ten days. Wipe off condensation on the surface. The measured values shall satisfy the values mentioned at the left.
connection.			Expose to 35°C and 5% concentration salt spray for 48 hours, wash with flowing water, then dry in an air-circulated oven at 38 ±3°C for 12 hours.

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