

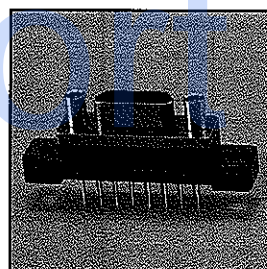
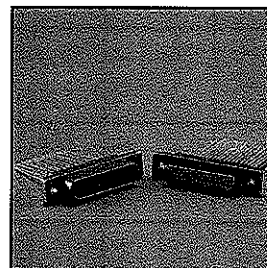
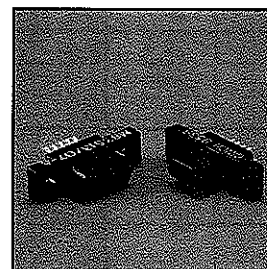
**Dura-Con**  
**High Reliability**  
**MIL-C-83513**

.050" (1.27mm) Density  
 Solder Cup/Wire  
 D-Microminiature

**Cinch**

FEATURES

- All-plastic and metal shell wire versions available in solder cup, gold-plated solid wire, and insulated stranded wire.
- PCB mount "terminal block" type connectors available in straight or right angle.
- Sizes offered - 9, 15, 21, 25, 31, 35, 51, and 100 (metal shell only).
- All products are qualified to the requirements of MIL-C-83513 and marked with the M83513 part number.
- Optional shell platings and insulator materials offer high performance in harsh environments.
- Mounting hardware per MIL-C-83513.



MATERIALS

**Insulator:** UL94V-0 rated glass-filled polyester per MIL-M-24519 or diallyl phthalate (DAP) per MIL-M-14.  
**Contacts:** Pins - Copper alloy, Sockets - Copper alloy  
**Contact Plating:** .000050 in gold per MIL-G-45204  
**Shell Material (Metal Shell Only):** Aluminum alloy  
**Shell Plating (Metal Shell Only):** Yellow chromate over cadmium (std.) or electroless nickel

ENVIRONMENTAL

**Operating Temperature:** -55°C to +125°C

ELECTRICAL

**Current Rating:** 3 Amps maximum  
**Withstanding Voltage:** 600 VAC RMS @ sea level  
**Contact Resistance:** 8 milliohms maximum

MECHANICAL

**Durability:** 500 mate/unmate cycles  
**Individual Contact:** Forces 6 oz. (170.40 g) maximum insertion;  
 0.5 oz. (14.20 g) minimum withdrawal  
**Mating / Unmating Force:** See table

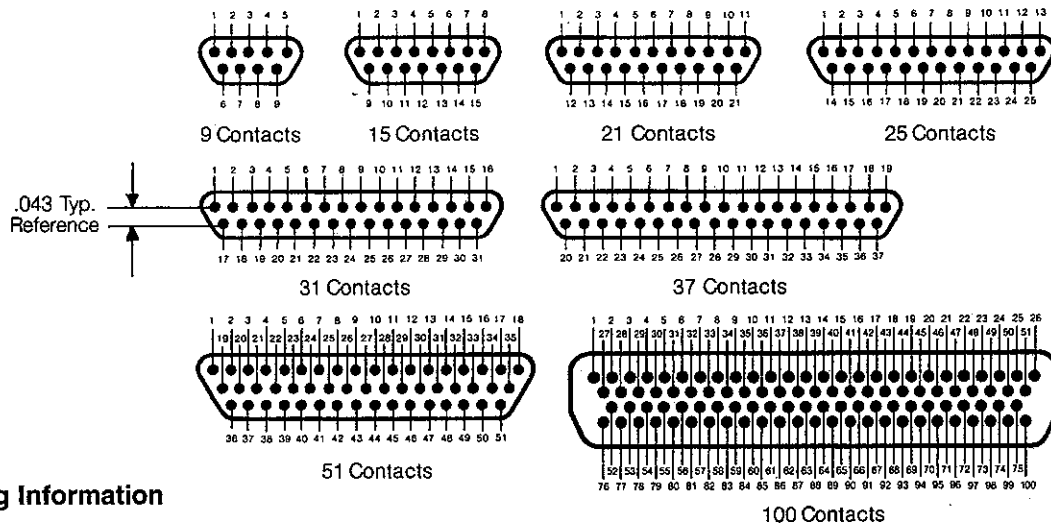
No. of Contacts	Maximum Mating Force		Minimum Unmating Force	
	Lb.	Kg	Lb.	Kg
9	5.63	2.56	.28	.13
15	9.38	4.26	.47	.21
21	13.13	5.96	.66	.30
25	15.63	7.10	.78	.35
31	19.38	8.80	.97	.44
37	23.13	10.50	1.16	.53
51	31.88	14.47	1.59	.72

**Metal Shell**

**Contact Arrangements**

(Face view of pin insert)

(Use reverse order for socket side)



**Ordering Information**

**M83513/04 - A 03 C**

**Connector Type**

- 01 - Metal Shell D Plugs with Solder Cup Termination
- 02 - Metal Shell D Sockets with Solder Cup Termination
- 03 - Metal Shell D Plugs with Wire Leads
- 04 - Metal Shell D Sockets with Wire Leads

**Insert Arrangements**  
 (No. of Contacts)

- A = 9
- B = 15
- C = 21
- D = 25
- E = 31
- F = 37
- G = 51
- H = 100

**Shell Finish**

- C = Cadmium
- N = Electroless Nickel

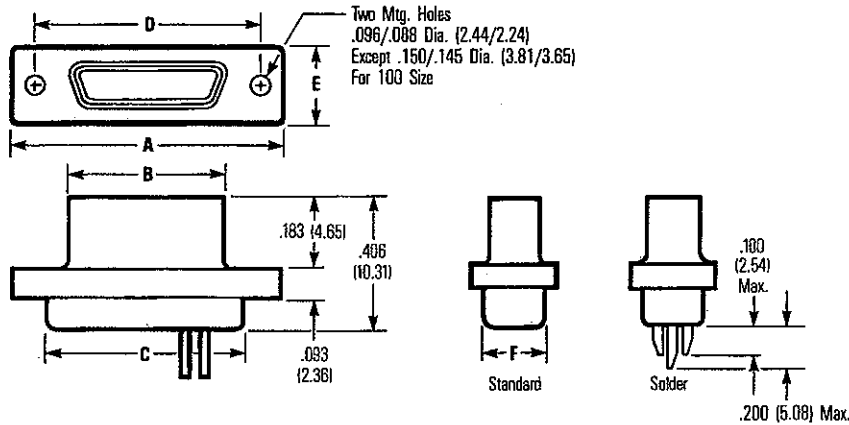
**Wire Type (Use only for /03 & /04, otherwise omit)**

- 01 - M22759/11-26-9, 18 inches, White (see note below)
- 02 - M22759/11-26-9, 36 inches, White (see note below)
- 03 - M22759/11-26-( ), 18 inches, Color Coded (see note below)
- 04 - M22759/11-26-( ), 36 inches, Color Coded (see note below)
- 05 - QQ-W-343, 25 AWG, 0.5 inch, Gold-Plated
- 06 - QQ-W-343, 25 AWG, 1.0 inch, Gold-Plated
- 07 - QQ-W-343, 25 AWG, 0.5 inch, Tin-Plated
- 08 - QQ-W-343, 25 AWG, 1.0 inch, Tin-Plated
- 09 - M22759/33-26-9, 18 inches, White
- 10 - M22759/33-26-9, 36 inches, White
- 11 - M22759/33-26-( ), 18 inches, Color Coded
- 12 - M22759/33-26-( ), 36 inches, Color Coded
- 13 - M22759/11-26-9, 72 inches, White
- 14 - M22759/11-26-( ), 72 inches, Color Coded
- 15 - M22759/33-26-9, 72 inches, White
- 16 - M22759/33-26-( ), 72 inches, Color Coded

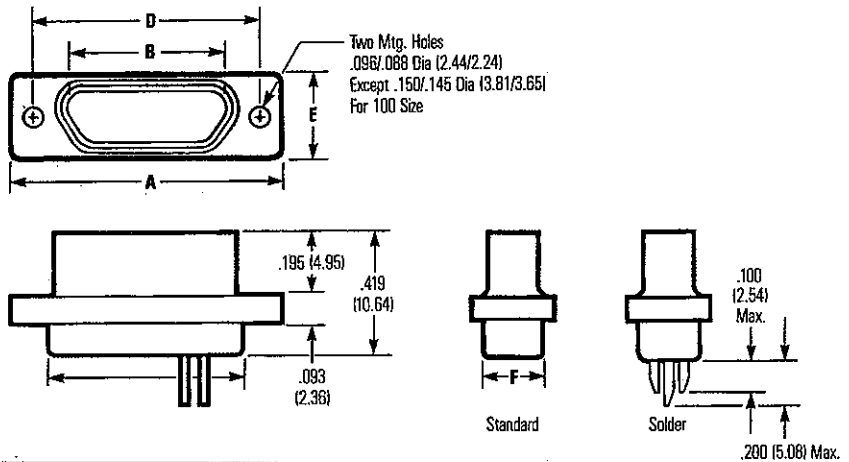
Note: See page 5-31 for M83513 mounting hardware.

**Connector Dimensions - Metal Shell**

**Plug**



**Socket**

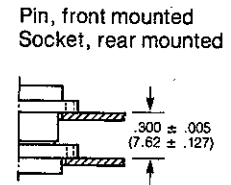
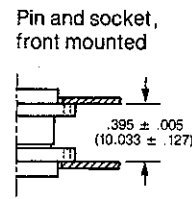
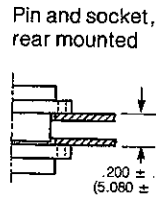


No. of Contacts	A		B Max. (Plug) Min. (Socket)		C + .010" (.254) - .018" (.457)		D		E		F Max.	
	± .010" (.254)						± .005" (.127)		± .010" (.254)			
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
9 Plug	.775	19.68	.3338	8.48	.390	9.91	.565	14.35	.298	7.57	.270	6.68
9 Socket	.775	19.68	.3342	8.49	.390	9.91	.565	14.35	.298	7.57	.270	6.68
15 Plug	.925	23.50	.4838	12.29	.540	13.72	.715	18.16	.298	7.57	.270	6.68
15 Socket	.925	23.50	.4842	12.30	.540	13.72	.715	18.16	.298	7.57	.270	6.68
21 Plug	1.075	27.30	.6338	16.10	.690	17.53	.865	21.97	.298	7.57	.270	6.68
21 Socket	1.075	27.30	.6342	16.11	.690	17.53	.865	21.97	.298	7.57	.270	6.68
25 Plug	1.175	29.84	.7338	18.64	.790	20.07	.965	24.51	.298	7.57	.270	6.68
25 Socket	1.175	29.84	.7342	18.65	.790	20.07	.965	24.51	.298	7.57	.270	6.68
31 Plug	1.325	33.66	.8838	22.45	.940	23.88	1.115	28.32	.298	7.57	.270	6.68
31 Socket	1.325	33.66	.8842	22.46	.940	23.88	1.115	28.32	.298	7.57	.270	6.68
37 Plug	1.475	37.46	1.0338	26.26	1.090	27.69	1.265	32.13	.298	7.57	.270	6.68
37 Socket	1.475	37.46	1.0342	26.27	1.090	27.69	1.265	32.13	.298	7.57	.270	6.68
51 Plug	1.425	36.20	.9838	24.99	1.040	26.42	1.215	30.86	.341	8.66	.310	7.87
51 Socket	1.425	36.20	.9842	25.00	1.040	26.42	1.215	30.86	.341	8.66	.310	7.87
100 Plug	2.160	54.86	1.3838	35.15	1.432	36.38	1.800	45.71	.384	9.75	.360	9.15
100 Socket	2.160	54.86	1.3842	35.16	1.432	36.38	1.800	45.71	.384	9.75	.360	9.15

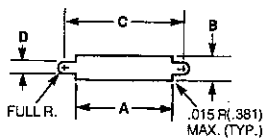
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**Panel Mounting Dimensions - Metal Shell**

**Panel Mounting Dimensions**

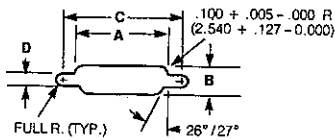


**Panel Cutout Dimensions - Metal Shell**



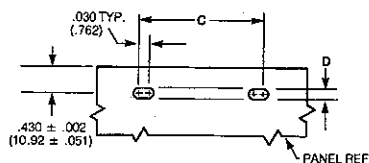
**Front Mounting**

No. of Contacts	A		B		C		D	
	in	mm	in	mm	in	mm	in	mm
9	.408	10.36	.270	6.86	.570	14.48	.089	2.26
15	.558	14.17	.270	6.86	.720	18.29	.089	2.26
21	.708	17.98	.270	6.86	.870	22.10	.089	2.26
25	.808	20.52	.270	6.86	.970	24.64	.089	2.26
31	.958	24.33	.270	6.86	1.120	28.45	.089	2.26
37	1.108	28.14	.270	6.86	1.270	32.26	.089	2.26
51	1.058	26.87	.315	8.00	1.220	30.99	.089	2.26
100	1.450	36.84	.361	9.17	1.805	45.86	.117	2.97



**Rear Mounting**

No. of Contacts	A		B		C		D	
	in	mm	in	mm	in	mm	in	mm
9	.408	10.36	.256	6.50	.570	14.48	.089	2.26
15	.558	14.17	.256	6.50	.720	18.29	.089	2.26
21	.708	17.98	.256	6.50	.870	22.10	.089	2.26
25	.808	20.52	.256	6.50	.970	24.64	.089	2.26
31	.958	24.33	.256	6.50	1.120	28.45	.089	2.26
37	1.108	28.14	.256	6.50	1.270	32.26	.089	2.26
51	1.058	26.87	.300	7.62	1.220	30.99	.089	2.26
100	1.450	36.84	.338	8.58	1.805	45.86	.117	2.97



**Edgeboard Mounting**

No. of Contacts	C		D	
	in	mm	in	mm
9	.570	14.48	.089	2.26
15	.720	18.29	.089	2.26
21	.870	22.10	.089	2.26
25	.970	24.64	.089	2.26
31	1.120	28.45	.089	2.26
37	1.270	32.26	.089	2.26
51	1.220	30.99	.089	2.26
100	1.805	45.86	.117	2.97