

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

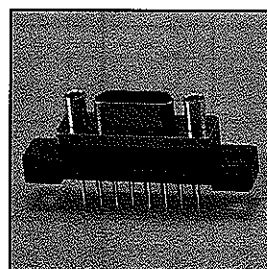
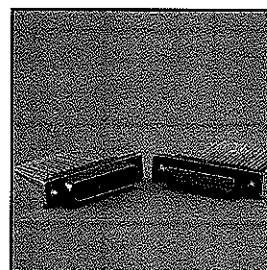
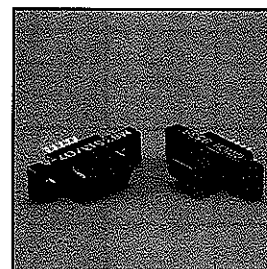
Operating Temperature: -55°C to +125°C

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



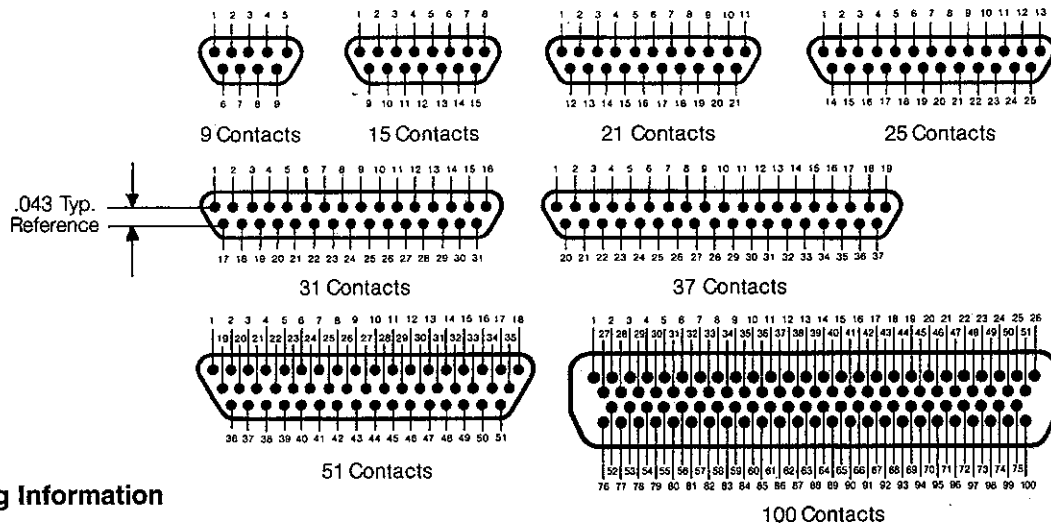
No. of Contacts	Maximum Mating Force		Minimum Unmating Force	
	Lb.	Kg	Lb.	Kg
9	5.63	2.56	.28	.13
15	9.38	4.26	.47	.21
21	13.13	5.96	.66	.30
25	15.63	7.10	.78	.35
31	19.38	8.80	.97	.44
37	23.13	10.50	1.16	.53
51	31.88	14.47	1.59	.72

Metal Shell

Contact Arrangements

(Face view of pin insert)

(Use reverse order for socket side)



Ordering Information

M83513/04 - A 03 C	
Connector Type	Shell Finish
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	C = Cadmium N = Electroless Nickel
Insert Arrangements (No. of Contacts)	Wire Type (Use only for /03 & /04, otherwise omit)
A = 9 B = 15 C = 21 D = 25 E = 31 F = 37 G = 51 H = 100	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.

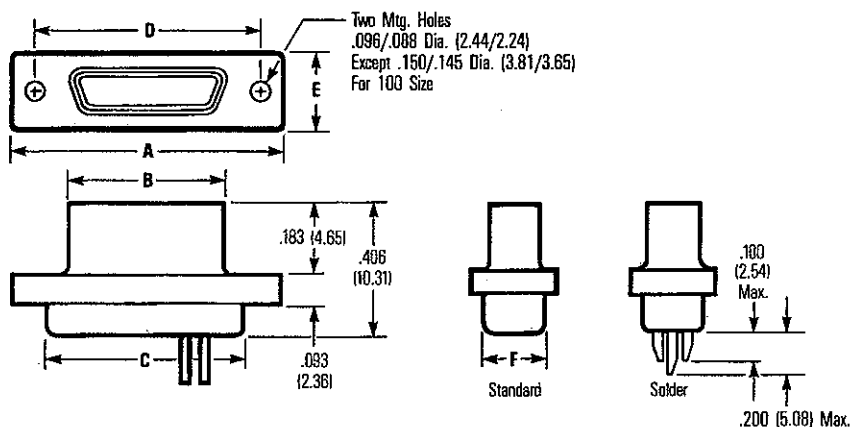
Dura-Con
High Reliability
MIL-C-83513

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

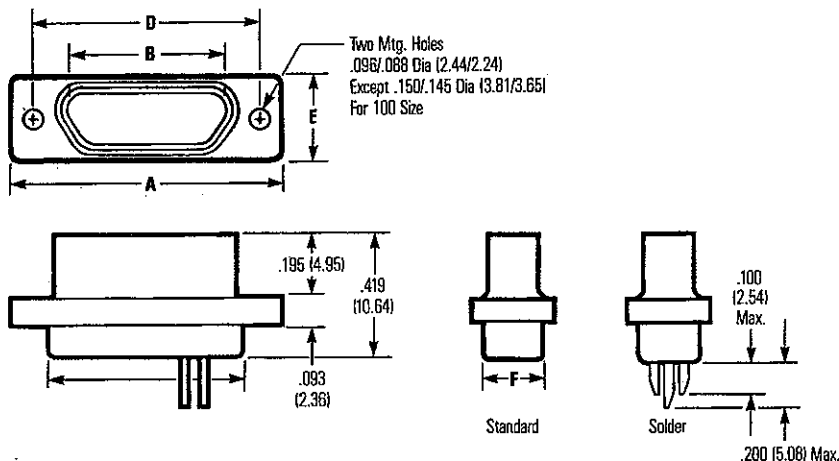
Cinch

Connector Dimensions - Metal Shell

Plug



Socket

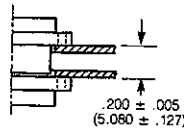


No. of Contacts	A		B Max. (Plug) Min. (Socket)		C + .010" (.254) - .018" (.457)		D		E		F Max.	
	± .010" (.254) in	mm	in	mm	in	mm	± .005" (.127) in	mm	± .010" (.254) in	mm	in	mm
9 Plug	.775	19.68	.3338	8.48	.390	9.91	.565	14.35	.298	7.57	.270	6.68
9 Socket	.775	19.68	.3342	8.49	.390	9.91	.565	14.35	.298	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

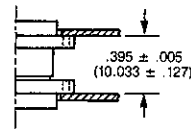
Panel Mounting Dimensions - Metal Shell

Panel Mounting Dimensions

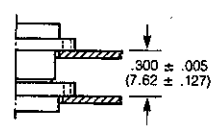
Pin and socket,
rear mounted



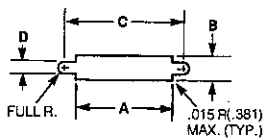
Pin and socket,
front mounted



Pin, front mounted
Socket, rear mounted

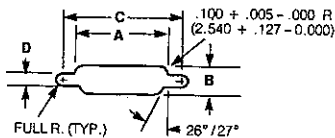


Panel Cutout Dimensions - Metal Shell



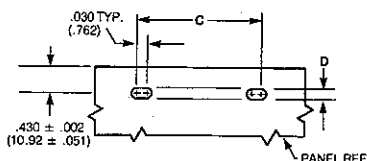
Front Mounting

No. of Contacts	A		B		C		D	
	+.004" (.101mm) -.000" (.000mm)		+.004" (.101mm) -.000" (.000mm)		+.005" (.127mm) -.000" (.000mm)		+.005" (.127mm) -.000" (.000mm)	
	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	14.48	.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	
	+.004" (.101mm) -.000" (.000mm)		+.004" (.101mm) -.000" (.000mm)		+.005" (.127mm) -.000" (.000mm)		+.005" (.127mm) -.000" (.000mm)	
	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	
	+.005" (.127mm) -.000" (.000mm)		+.005" (.127mm) -.000" (.000mm)	
	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