INCH-POUND

MIL-DTL-83513/2H
6 March 2009
SUPERSEDING
MIL-DTL-83513/2G
25 June 2002

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, RECTANGULAR, RECEPTACLE, MICROMINIATURE, POLARIZED SHELL, SOCKET CONTACTS, CLASS M, SOLDER TYPE

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-83513.

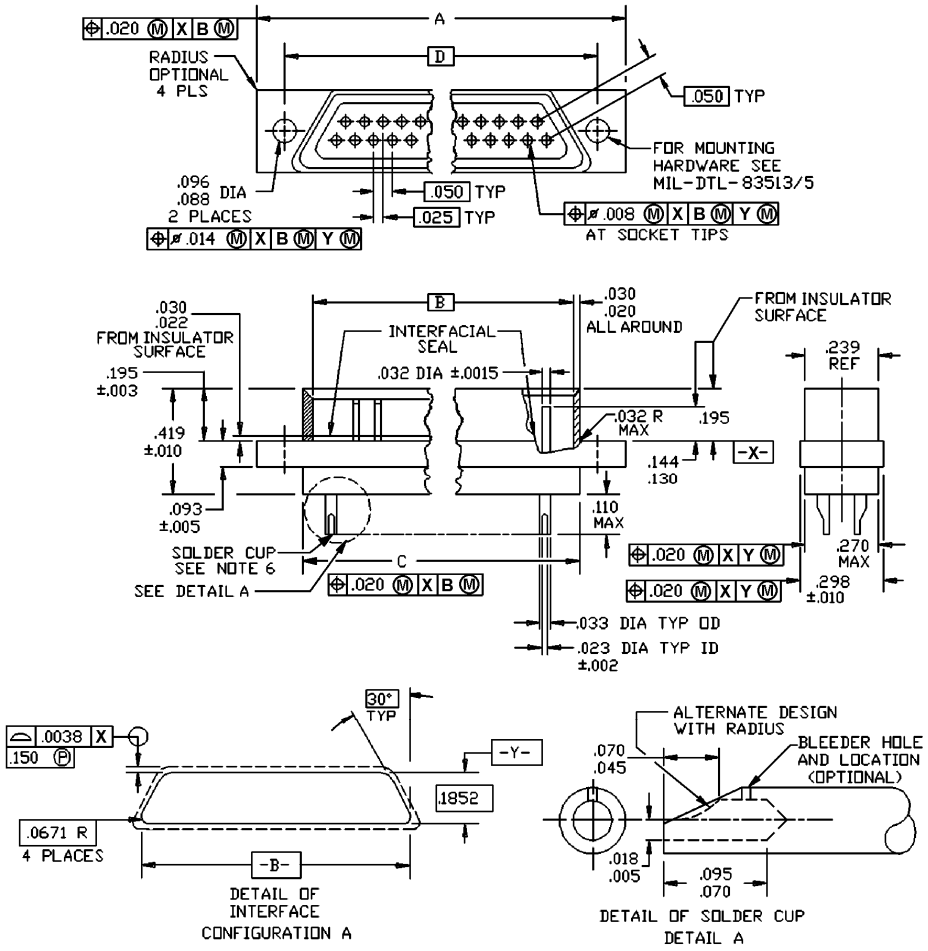


FIGURE 1. Connector, receptacle, .050 spacing.

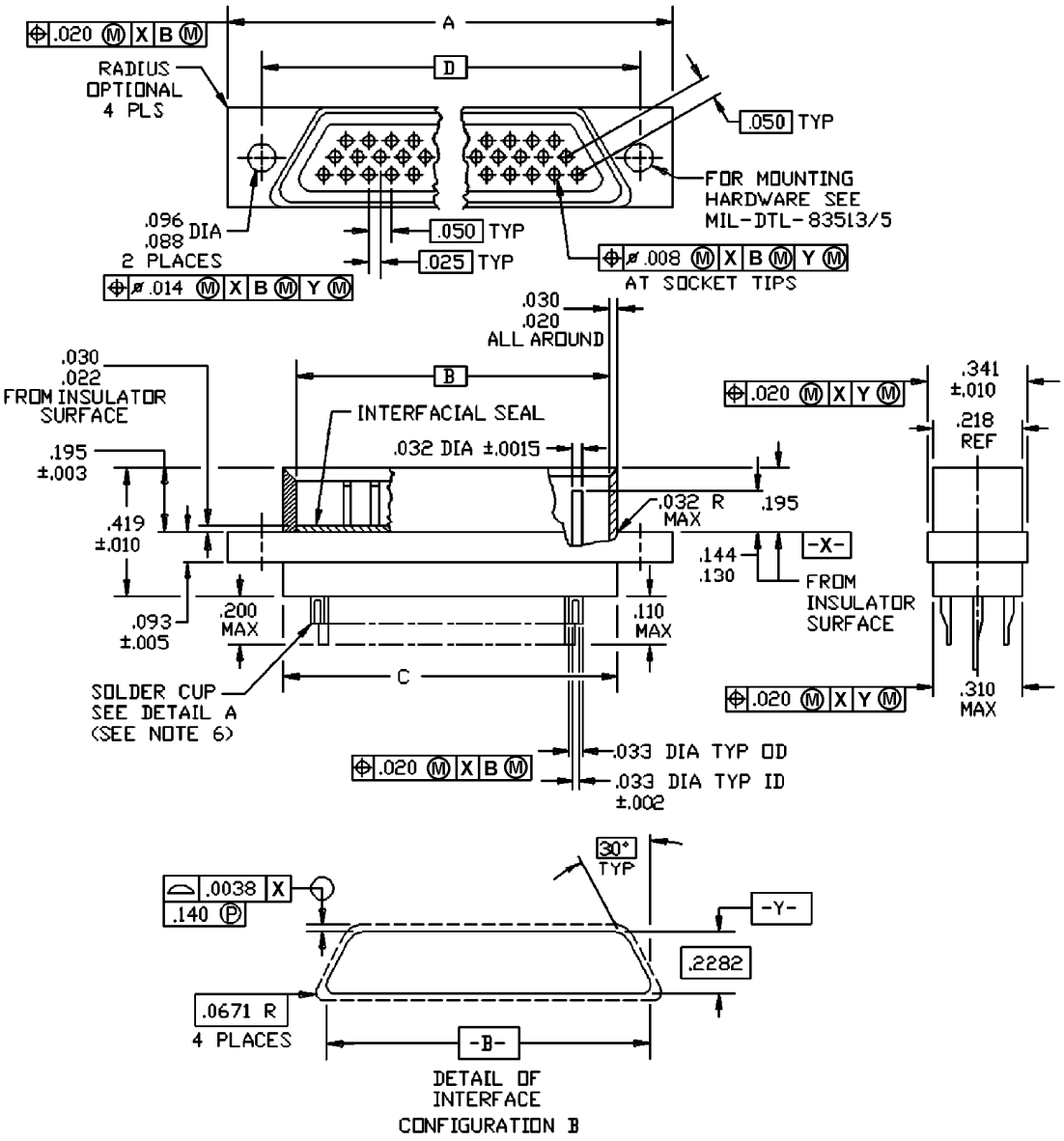


FIGURE 1. Connector, receptacle, .050 spacing - Continued.

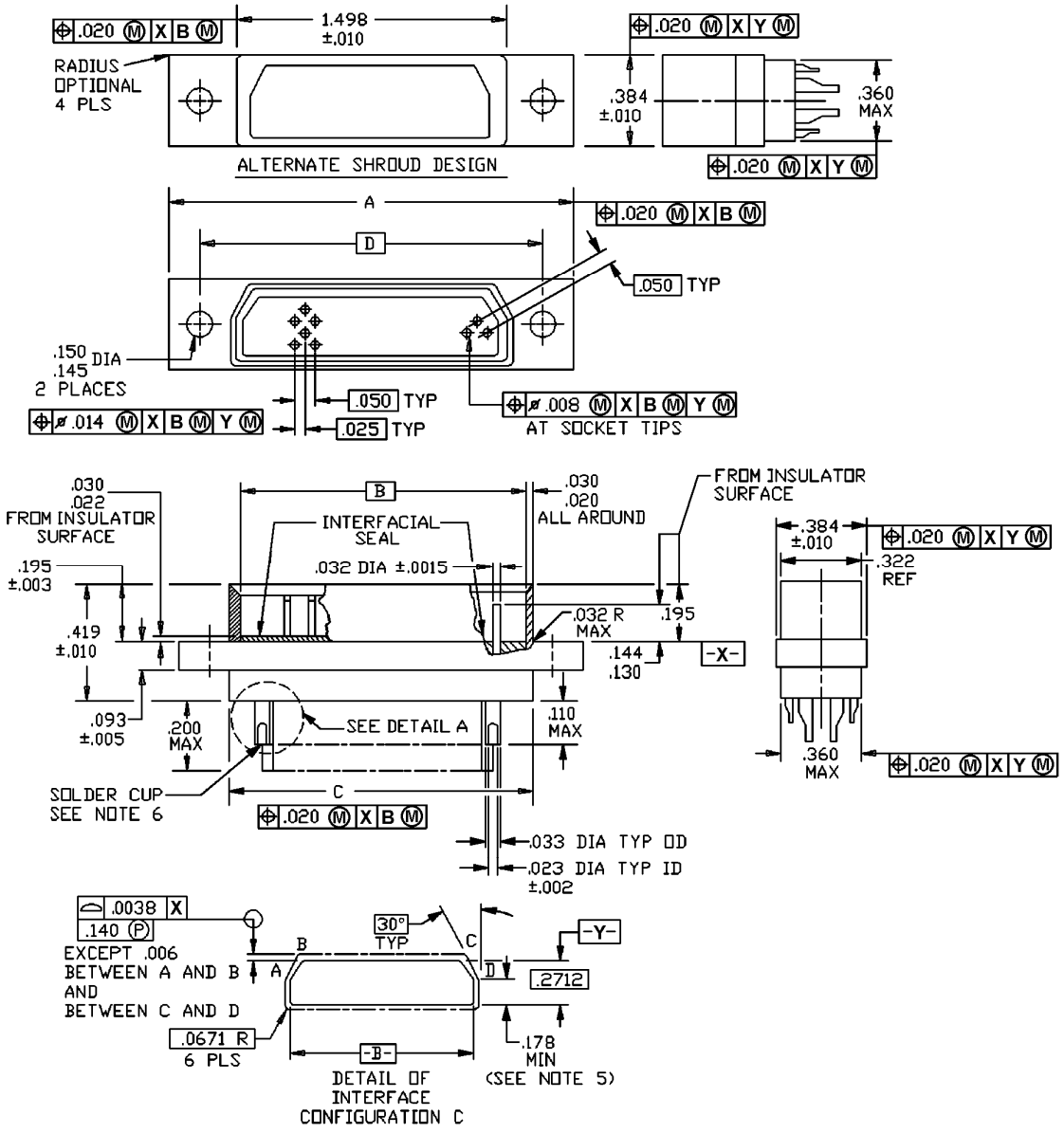


FIGURE 1. Connector, receptacle .050 spacing - Continued.

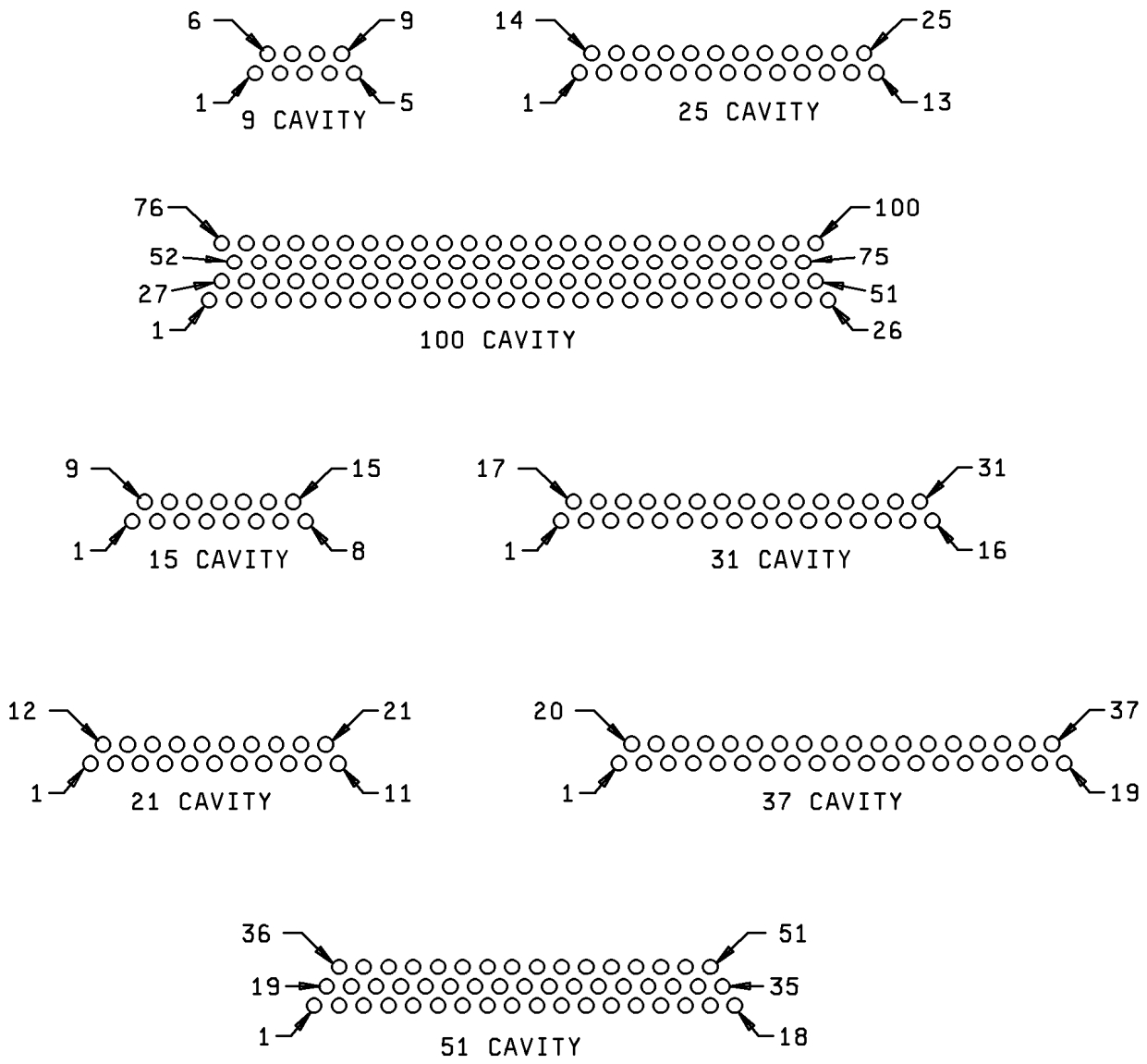
Number of cavities	A ±.010 (.25)	B BSC	C +.010 -.018 +(.25) -(.46)	D BSC	Configuration letter
9	.775 (19.68)	.3342 (8.489)	.390 (9.91)	.565 (14.35)	A
15	.925 (23.50)	.4842 (12.299)	.540 (13.72)	.715 (18.16)	A
21	1.075 (27.30)	.6342 (16.109)	.690 (17.53)	.865 (21.97)	A
25	1.175 (29.84)	.7342 (18.649)	.790 (20.07)	.965 (24.51)	A
31	1.325 (33.66)	.8842 (22.459)	.940 (23.88)	1.115 (28.32)	A
37	1.475 (37.46)	1.0342 (26.269)	1.090 (27.69)	1.265 (32.13)	A
51	1.425 (36.20)	.9842 (25.00)	1.040 (26.42)	1.215 (30.86)	B
100	2.160 (54.86)	1.3842 (35.159)	1.432 (36.37)	1.800 (45.72)	C

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.0015	0.038	.015	0.38	.070	1.78	.144	3.36	.270	6.86
.002	0.05	.018	0.46	.088	2.24	.145	3.68	.2712	6.888
.003	0.08	.020	0.51	.090	2.29	.150	3.81	.275	6.99
.0035	0.089	.022	0.56	.0926	2.352	.180	4.57	.281	7.14
.0038	0.097	.025	0.64	.093	2.36	.1852	4.704	.298	7.57
.004	0.10	.030	0.76	.094	2.39	.189	4.80	.310	7.87
.005	0.13	.032	0.81	.095	2.41	.193	4.90	.322	8.18
.006	0.15	.033	0.84	.100	2.54	.195	4.95	.341	8.66
.007	0.18	.045	1.14	.110	2.79	.200	5.08	.360	9.14
.008	0.20	.050	1.27	.117	2.97	.2282	5.796	.384	9.75
.010	0.25	.0671	1.704	.123	3.12	.232	5.89	.419	10.64
.014	0.36	.069	1.75	.130	3.30	.239	6.07	1.498	37.95

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are ±.005 (0.13 mm).
4. Metric equivalents are in parentheses.
5. Dimension line at point D located the point of intersection of the two adjacent side of the receptacle interface.
6. 26 AWG wire is the maximum wire size that can be used in the solder cup.

FIGURE 1. Connector, receptacle, .050 spacing - Continued.



NOTES:
1. Engaging face of socket insert shown.
2. Cavity identification numbers are for reference only and do not appear on part.

FIGURE 2. Insert arrangement.

REQUIREMENTS:

Dimensions and configurations: See figure 1. This specification sheet describes the socket side of a rectangular metal shell connector. This connector uses reverse gender contact, i.e., the live pin recessed in the insulator with the static socket protruding from a shrouded interface.

Material and finish:

Shell: The requirements for shell materials shall be in accordance with MIL-DTL-83513.

Interfacial seal: Silicone rubber, or fluorosilicone rubber or blend thereof.

Contact identification: See figure 2 for contact layout identification.

Contact connection: The pin contact (being recessed in the insulator) is normally connected to the live side of the circuit.

Current rating, maximum: 3 amperes per contact.

Mounting and mating hardware: Mounting hardware is to be ordered separately. Insert arrangements A through G, shall be in accordance with MIL-DTL-83513/5, configurations A and B. Insert arrangement H, shall be in accordance with MIL-DTL-83513/5, configuration C.

Mating plug: Shall be in accordance with MIL-DTL-83513/1 or MIL-DTL-83513/3.

Part or Identifying Number (PIN): PIN shall consist of the letter M, the basic number of the specification sheet, a letter from the insert column and the shell finish.

M83513/02 - A C

Specification sheet	Insert arrangement (see figure 2)	Shell finish (Interface critical)
	A = 9	A = Pure electrodeposited aluminum
	B = 15	C = Cadmium
	C = 21	K = Zinc nickel
	D = 25	N = electroless nickel (space applications only)
	E = 31	P = Passivated Stainless Steel
	F = 37	T = Nickel Fluorocarbon Polymer
	G = 51	
	H = 100	

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of marginal notations and relationship to the last previous issue.

Referenced documents. In addition to MIL-DTL-83513, this document references the following:

MIL-DTL-83513/1
MIL-DTL-83513/3
MIL-DTL-83513/5

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - EC
Air Force - 85
NASA - NA
DLA - CC

Preparing activity:
DLA - CC

(Project: 5935-2007-173)

Review activities:
Army - AT, MI
Navy - AS, CG, MC, SH
Air Force - 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at http://assist.daps.dla.mil.