

INCH-POUND

MIL-C-83513/13A
 28 June 1993
 SUPERSEDING
 MIL-C-83513/13
 11 February 1992

MILITARY SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, RECTANGULAR, RECEPTACLE, MICROMINIATURE, POLARIZED SHELL, RIGHT ANGLE, SOCKET CONTACTS, 2 ROW, SOLDER TYPE, NARROW PROFILE, 9 THROUGH 37 CONTACTS, PRINTED CIRCUIT BOARD

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 the issue of the following specification Listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-C-83513.

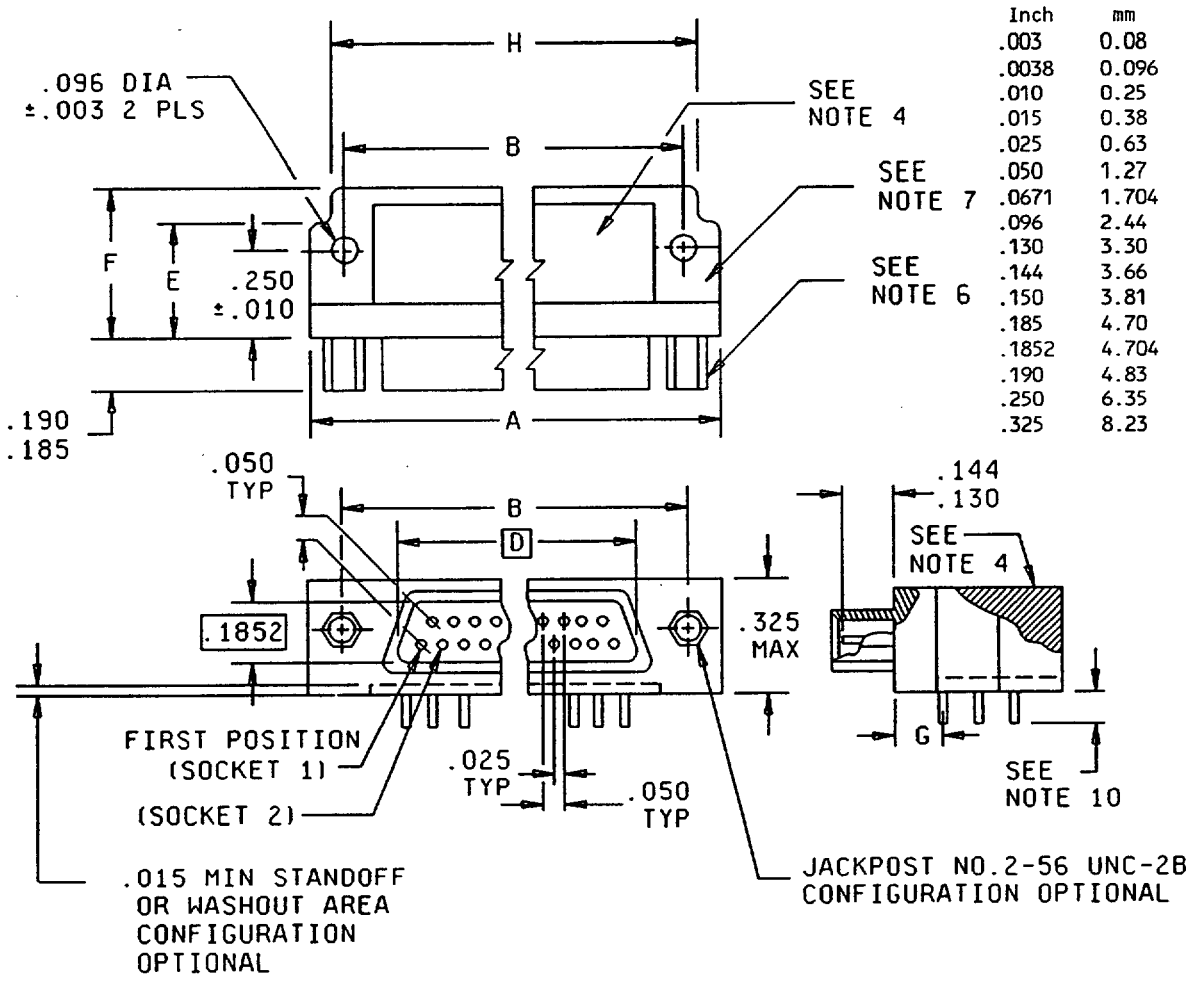
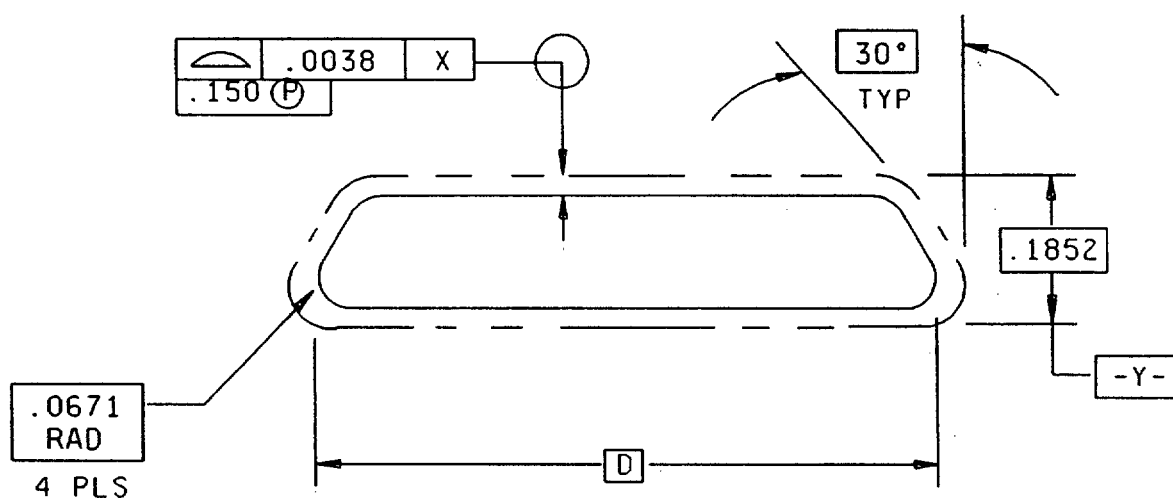


FIGURE 1. Connector, receptacle, .050 spacing.

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DETAIL OF INTERFACE

Detail of interface

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

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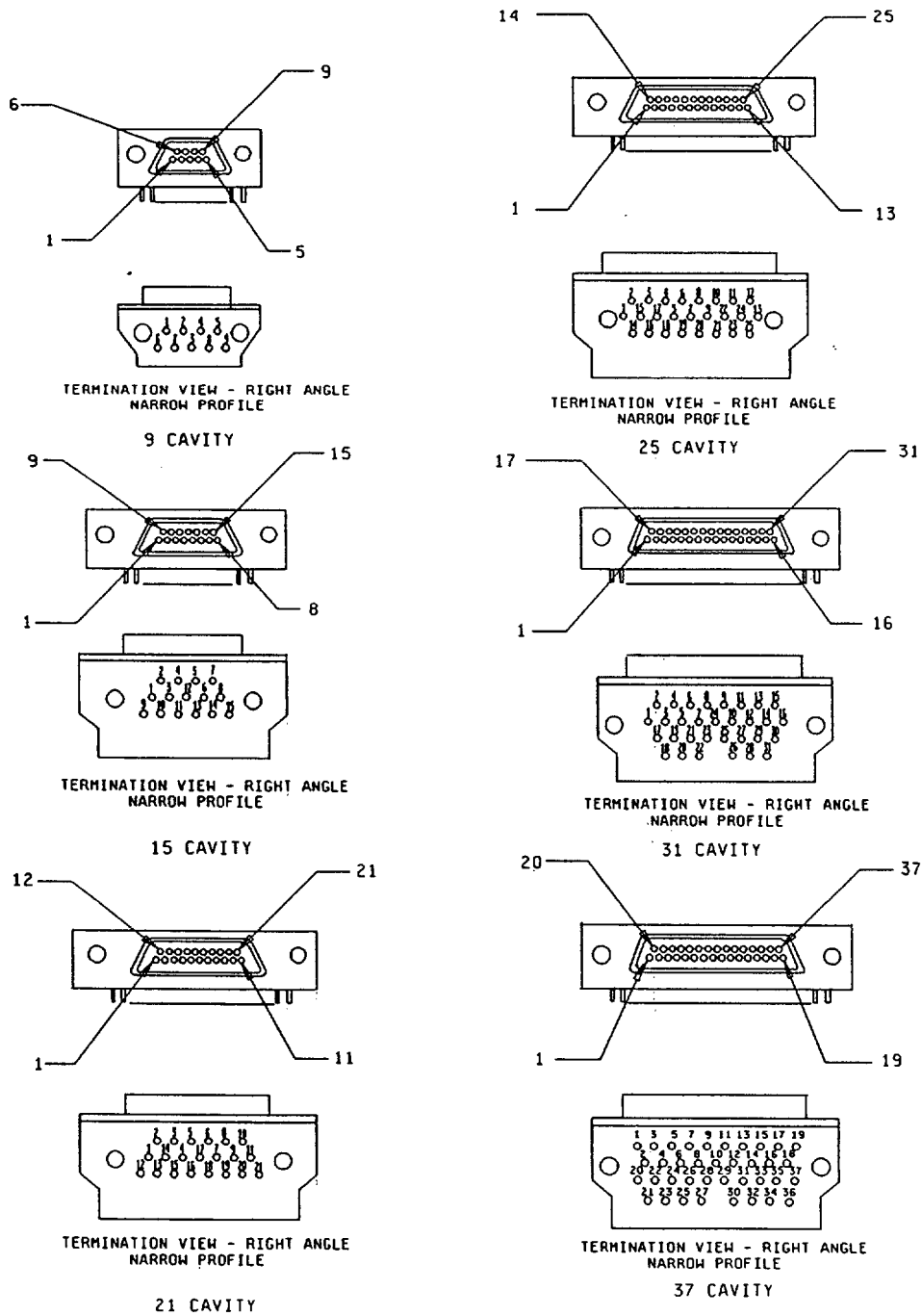
Number of contacts	A Max	B $\pm .005$	D	E Max	F Max	G $\pm .01$	H Max
9	.787 (19.99)	.565 (14.35)	.3342 (8.49)	.425 (10.80)	.425 (10.80)	.230 (5.84)	.787 (19.99)
15	.937 (23.80)	.715 (18.16)	.4842 (12.30)	.425 (10.80)	.425 (10.80)	.130 (3.30)	.937 (23.80)
21	1.087 (27.61)	.865 (21.97)	.6342 (16.11)	.425 (10.80)	.425 (10.80)	.130 (3.30)	1.087 (27.61)
25	1.187 (30.15)	.965 (24.51)	.7342 (18.65)	.425 (10.80)	.425 (10.80)	.130 (3.30)	1.187 (30.15)
31	1.337 (33.96)	1.115 (28.32)	.8842 (22.46)	.450 (11.43)	.525 (13.34)	.130 (3.30)	1.090 (27.69)
37	1.487 (37.77)	1.265 (32.13)	1.0342 (26.27)	.450 (11.43)	.525 (13.34)	.130 (3.30)	1.190 (30.23)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are $\pm .005$ (0.13 mm).
4. Termination organization area to be optionally molded or filled with a potting fill material capable of passing the electrical and environmental requirements of MIL-C-83513. Plastic molding shall conform to the requirements of GDI-30F or type SDG-F of MIL-M-14, or GST-40F or GLCP-30F or GLCP-50 of MIL-M-24519.
5. Metal shell shall be of material in accordance with MIL-C-83513 for class M parts.
6. Jackpost (permanently attached), when specified: Corrosion resistant steel in accordance with ASTM A484 and ASTM A582, 300 series stainless steel, passivated in accordance with QQ-P-35.
7. Separately molded plastic body (if used) shall conform to the requirements of GDI-30F or type SDG-F of MIL-M-14, or GST-40F or GLCP-30F or GLCP-50 of MIL-M-24519.
8. Wire termination sockets shall conform to QQ-W-343, no. 24 AWG copper.
9. Interfacial seals are included with each type receptacle connector.
10. Termination lengths available: .109 (2.77 mm), .140 (3.56 mm), or .172 (4.37 mm). The tolerance shall be $\pm .015$ (0.38 mm) for all termination lengths.

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

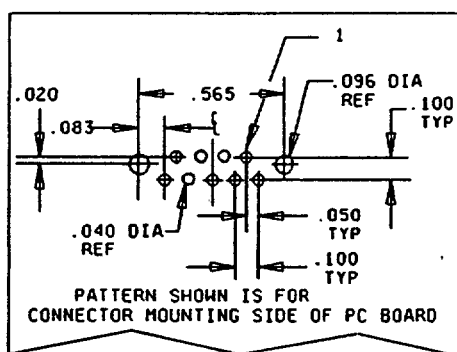
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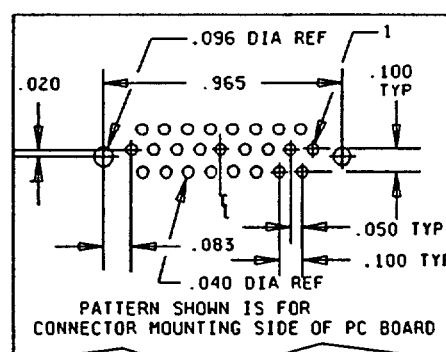
NOTE: Engaging face of socket insert shown, cavity identification numbers are for reference only and do not appear on the part.

FIGURE 2. Insert arrangement.

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9 CONTACT SOCKET CONNECTOR
RIGHT ANGLE



25 CONTACT SOCKET CONNECTOR
RIGHT ANGLE

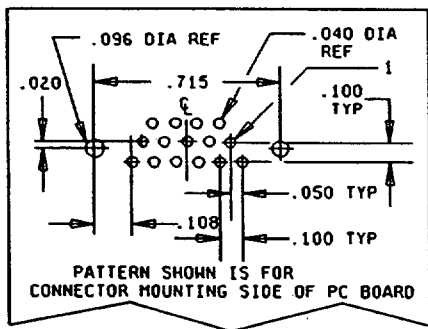
Inches	mm	Inches	mm	Inches	mm
.020	0.51	.100	2.54	.715	18.16
.040	1.02	.108	2.74	.865	21.97
.050	1.27	.158	4.01	.965	24.51
.083	2.11	.183	4.65	1.115	28.32
.096	2.44	.565	14.35	1.265	32.13

NOTES

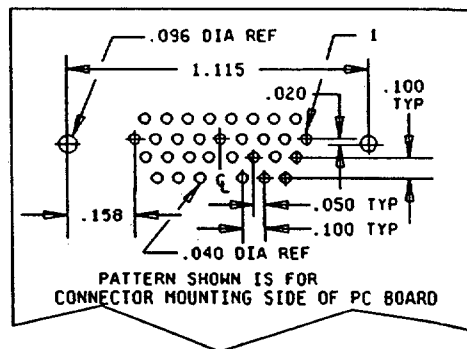
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .005$ (0.13 mm) on decimals.

FIGURE 3. Layout arrangement.

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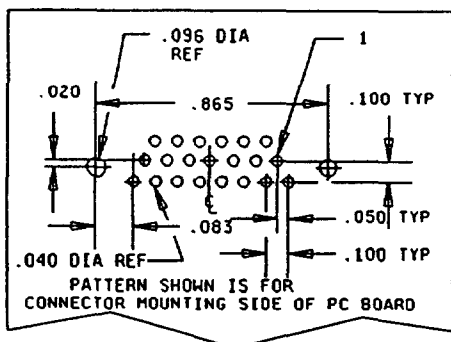
15 CONTACT SOCKET CONNECTOR
RIGHT ANGLE



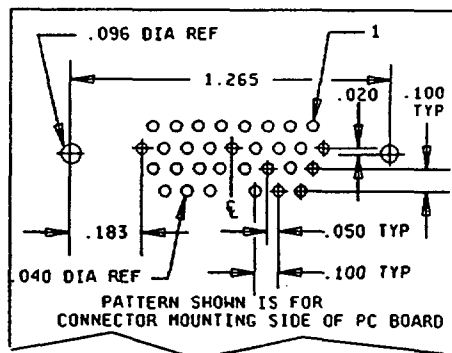
31 CONTACT SOCKET CONNECTOR
RIGHT ANGLE

FIGURE 3. Layout arrangement - Continued.

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21 CONTACT SOCKET CONNECTOR
RIGHT ANGLE



37 CONTACT SOCKET CONNECTOR
RIGHT ANGLE

FIGURE 3. Layout arrangement - Continued.

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REQUIREMENTS:

Dimensions and configurations: See figures 1 and 2.

Current rating, maximum: 3 amperes per contact.

Materials:

Termination organization area: Potting fill material capable of passing the electrical and environmental requirements of MIL-C-83513.

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

Plastic body or plastic molding: Shall conform to the requirements of GDI-30F or Type SDG-F of MIL-M-14, or GST-40F or GLCP-30F or GLCP-50 of MIL-M-24519.

Jackpost: Corrosion resistant steel in accordance with ASTM A484 and ASTM A582, 300 series stainless steel, passivated in accordance with QQ-P-35.

Wire termination pins: Wire termination pins shall conform to QQ-W-343, no. 24 AWG copper.

Mating connector: Shall conform to MIL-C-83513/1 and MIL-C-83513/3.

Plating of termination leads: Solder dipping socket of termination leads will be accomplished in SN60 Pb40 or SN63 Pb37 in accordance with QQ-S-571.

Part or Identifying Number (PIN): The PIN shall consist of the letter M, the basic number of the specification sheet, a letter from the insert, a numerical code for the termination length, and a letter code for the shell finish and hardware column.

M83513/13-	D	01	C	P
Specification sheet number	Insert arrangements (see figure 2)	Termination Length	Shell finish	Hardware
	A = 09	01 = .109	C = Cadmium	N = No jackpost
	B = 15	02 = .140	N = Electroless nickel	P = Jackpost attached
	C = 21	03 = .172	(space application)	
	D = 25			
	E = 31			
	F = 37			

Revision letters are not used to denote changes due to the extensiveness of the changes.

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85
NASA - NA

Preparing activity:
Air Force - 85

Agent:
DLA - ES

Review activities:

Army - MI
Navy - AS, SH
Air Force - 11, 17, 99

(Project: 5935-3921-04)

User activities:

Army - AT, ME
Navy - CG, MC