

MIL-DTL-83503/6D
 17 June 1998
 SUPERSEDING
 MIL-C-83503/6B
 20 December 1994

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, FLAT CABLE, NONENVIRONMENTAL
 DUAL-IN-LINE PLUG FOR TERMINATING ROUND CONDUCTORS ON .050
 CENTERS FOR MATING WITH STANDARD DIP SOCKETS, .100 X .300 CONTACT SPACING
 .100 X .400 CONTACT SPACING AND .100 X .600 CONTACT SPACING

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-DTL-83503.

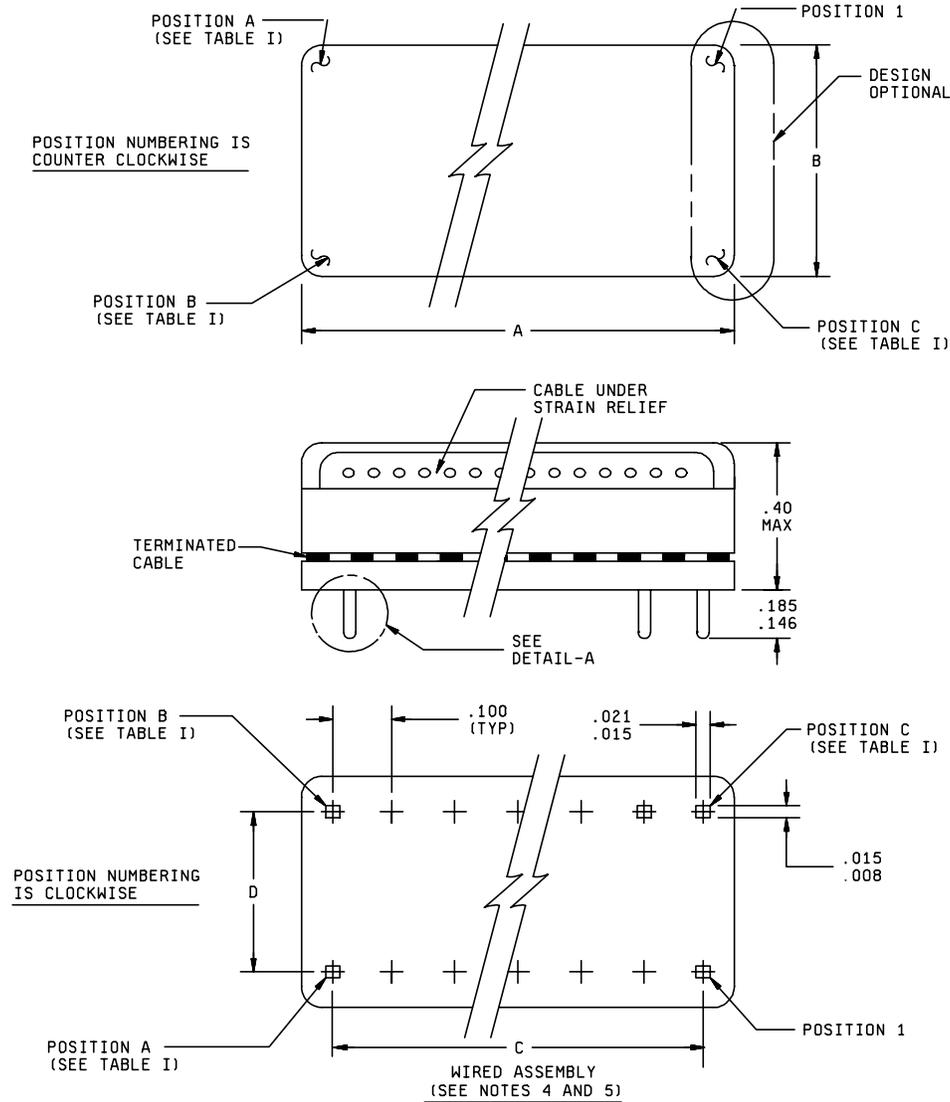
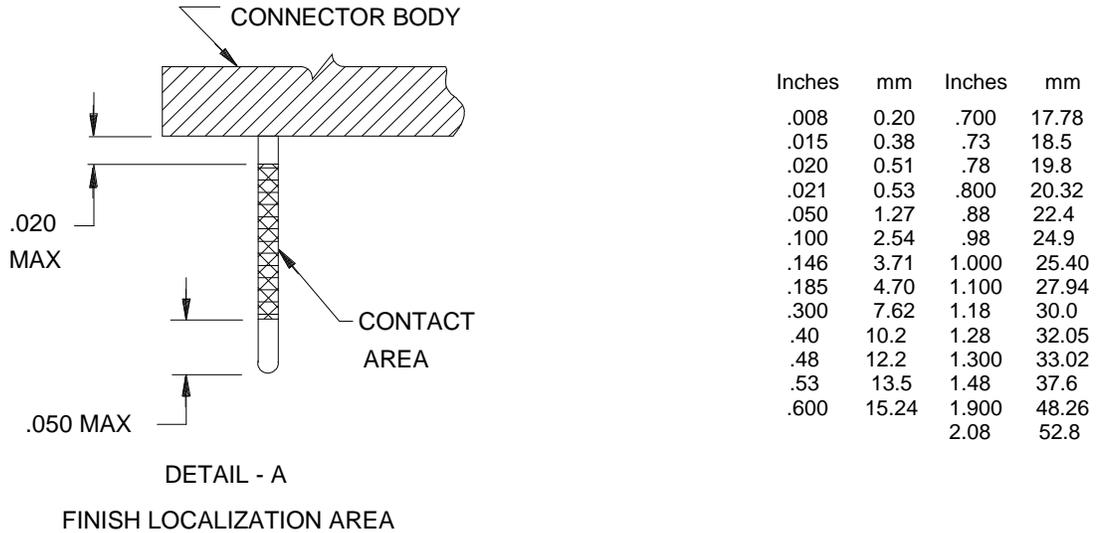


Figure 1. Dimensions and configuration.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are $\pm .01$ inch (0.3 mm) for two place decimals and $\pm .005$ inch (0.13 mm) for three place decimals and 2° on angles.
4. Strain relief shall be provided. Strain relief design is optional (may be either separate of an integral part of cover).
5. Assembled height including installed cable and (when applicable) the strain relief and excluding leads shall be .40 inch (10.2 mm) maximum.
6. Tolerances are non-cumulative.

Figure 1. Dimensions and configuration - Continued.

TABLE I. Dash numbers and characteristics

Dash number	Number of connections	Dimensions			
		A (max)	B (max)	C	D
01	14	.78	.48	.600	.300
02	16	.88	.48	.700	.300
03	24	1.28	.73	1.100	.600
04	8	.48	.48	.300	.300
05	18	.98	.48	.800	.300
06	22	1.18	.53	1.000	.400
07	28	1.48	.73	1.300	.600
08	40	2.08	.73	1.900	.600

REQUIREMENTS:

Design and construction:

Dimensions and configurations: See figure 1.

Interface: Round conductor flat cable, .050 inch (1.27 mm) centers, to dual-in-line socket .100 X .300 inch (2.54 X 7.62), .100 X .400 inch (2.54 X 10.16 mm) or .100 X .600 inch (2.54 X 15.24 mm).

Temperature range: -55° C to +120° C.

Voltage rating: 300 V rms.

Current rating: 1 ampere.

Materials:

Contacts: Beryllium copper in accordance with ASTM B196 or ASTM B197, phosphor bronze in accordance with ASTM B139, or other equivalent industry standard. Gold plating shall be in the contact mating area.

Accessories: May be made of 301 stainless steel or other approved equivalent material.

Housing: Glass filled nylon in accordance with ASTM D4066, Diallylphthalate, type SDG-F in accordance; glass filled polyester in accordance with ASTM D5948 or equivalent industry standard.

Conductor accommodation: 28 AWG stranded .05 inch spacing between conductor centerlines.

Test wire size: 28 AWG stranded.

Assembly tool: Connector manufacturers commercial tool.

Dielectric withstanding voltage:

(at sea level): 500 V rms.

(at altitude): 200 V rms.

Contact resistance: 50 milliohms, maximum.

Humidity: Connector shall be mated with the appropriate series 2 (low profile) dip socket in accordance with MIL-S-83734 with long axis of contacts running in a horizontal direction and the cable hanging down vertically.

Polarization: Not required.

Marking:

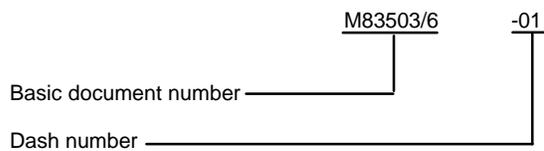
Contact identification: As a minimum, mark the end contacts in each row with raised numbers or ink stamps on connector cover.

MIL-DTL-83503/6D

Marking:

Part or identifying number (PIN): The PIN shall consist of this specification sheet and the dash number from figure 1, table.

Example



Intended use: Connector may be directly soldered to a .093 inch printed wiring board or mated with the appropriate series (low profile) dip socket in accordance with MIL-S-83734. These connectors when mated with MIL-S-83734 dip sockets are not to be used in airborne applications.

TABLE II. Pin position.

Pin position	Number of connections							
	8	14	16	18	22	24	28	40
A	4	7	8	9	11	12	14	20
B	5	8	9	10	12	13	15	21
C	8	14	16	18	22	24	28	40

TABLE II. Wire to contact pin.

Wire number	Number of connections							
	8	14	16	18	22	24	28	40
1	8	14	16	18	22	24	28	40
2	1	1	1	1	1	1	1	1
3	7	13	15	17	21	23	27	39
4	2	2	2	2	2	2	2	2
5	6	12	14	16	20	22	26	38
6	3	3	3	3	3	3	3	3
7	5	11	13	15	19	21	25	37
8	4	4	4	4	4	4	4	4
9		10	12	14	18	20	24	36
10		5	5	5	5	5	5	5
11		9	11	13	17	19	23	35
12		6	6	6	6	6	6	6
13		8	10	12	16	18	22	34
14		7	7	7	7	7	7	7
15			9	11	15	17	21	33
16			8	8	8	8	8	8
17				10	14	16	20	32
18				9	9	9	9	9
19					13	15	19	31
20					10	10	10	10
21					12	14	18	30
22					11	11	11	11
23						13	17	29
24						12	12	12
25							16	28
26							13	13
27							15	27
28							14	14
29								26
30								15
31								25
32								16
33								24
34								17
35								23
36								18
37								22
38								19
39								21
40								20

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

CONCLUDING MATERIAL

Custodians:
Air Force - 85

Preparing activity:
DLA - CC
(Project 5935-4110-01)

Review Activities:
Air Force - 17, 99