

INCH-POUND

MIL-DTL-55302/73D
w/AMENDMENT 2
22 August 2016
SUPERSEDING
MIL-DTL-55302/73D
w/AMENDMENT 1
26 July 2010

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES,
PIN, RIGHT ANGLE, ENVIRONMENTAL RESISTANT, PLUG, ELECTRICAL, POLARIZED
FOR PRINTED WIRING BOARDS (.150 SPACING)

Inactive for new design after 1 October 1986.

This specification is approved for used 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-55302.

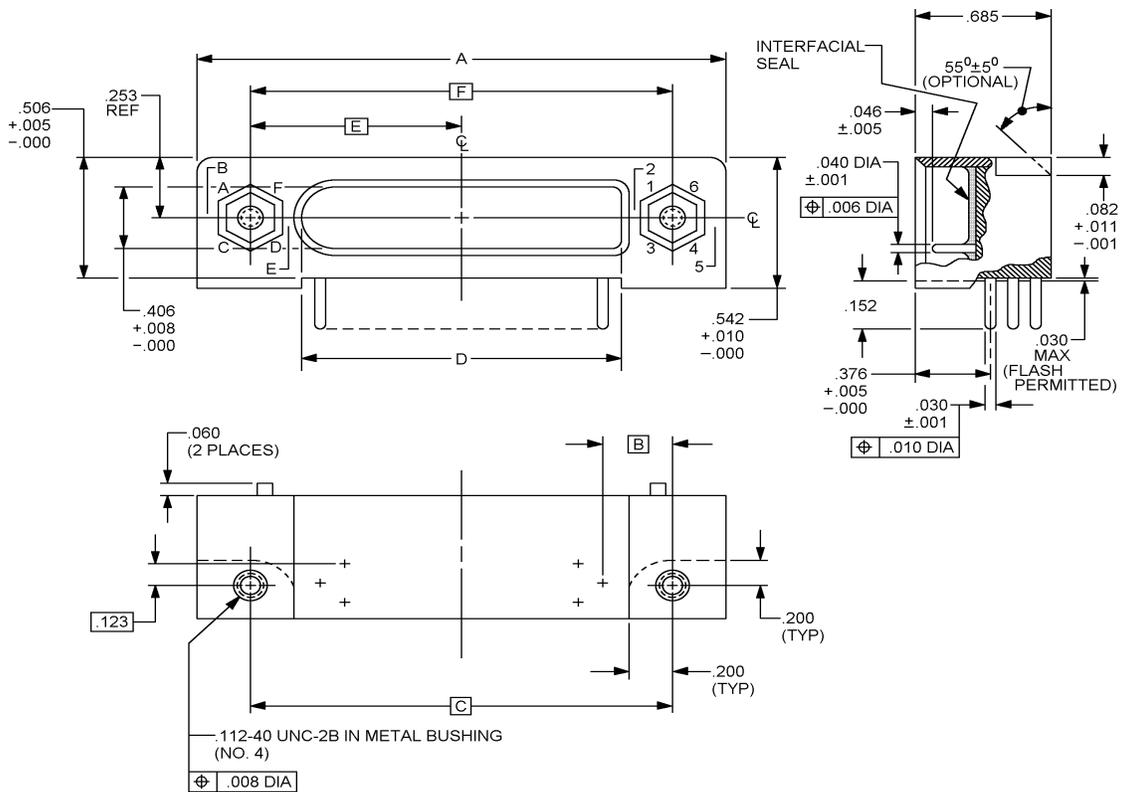


FIGURE 1. Connectors, plug, .150 (3.81 mm) contact spacing, pin terminal.

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MIL-DTL-55302/73D
w/AMENDMENT 2

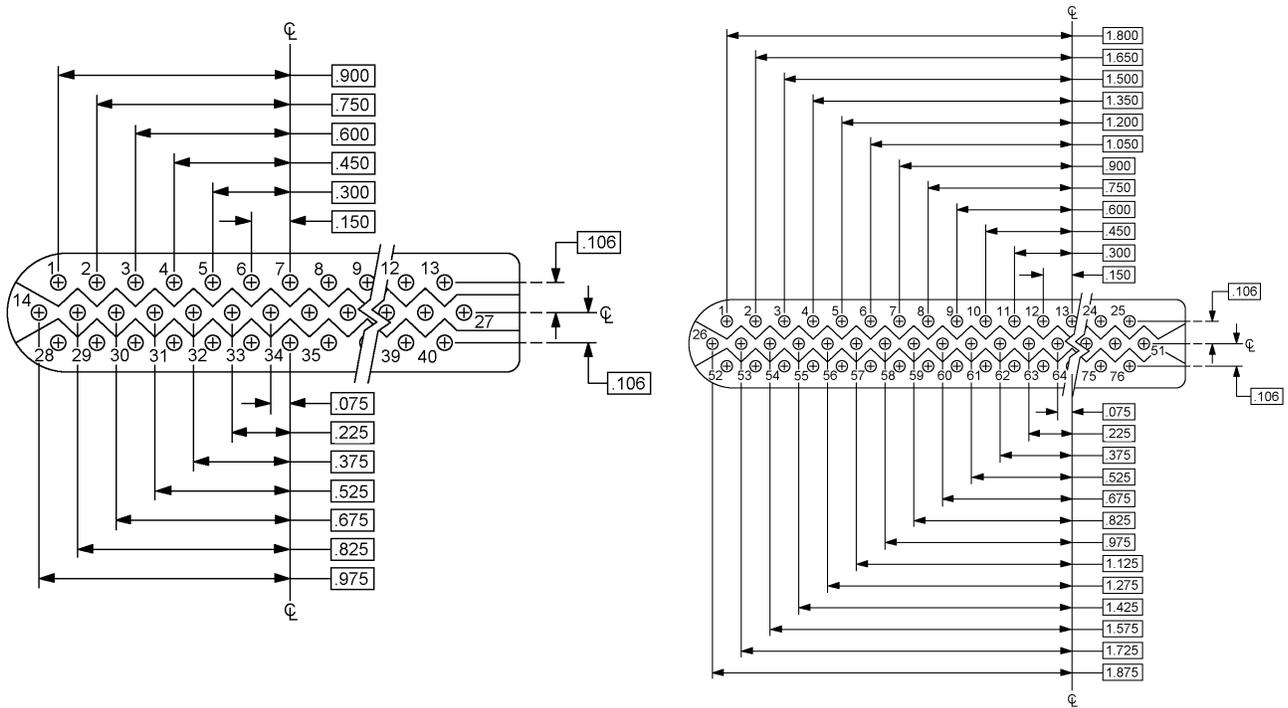
Inches	mm	Inches	mm	Inches	mm
.001	0.03	.030	0.76	.200	5.08
.005	0.13	.040	1.02	.253	6.43
.006	0.15	.045	1.14	.375	9.53
.008	0.20	.060	1.52	.406	10.31
.009	0.23	.082	2.08	.506	12.85
.010	0.25	.112	2.84	.542	13.77
.011	0.28	.123	3.12	.685	17.40

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Nominal spacing between any two adjacent pin contacts shall be .150 (TP)
4. Unless otherwise specified, tolerances are ± 0.10 (0.25 mm).
5. For dimensions A through E see table I.
6. Mating connectors provide 36 different polarization positions. Polarization components conforming to M55302/78-01 are supplied installed in connectors -A1 and are supplied uninstalled with connector -1P.
7. When properly mated with MIL-DTL-55302/72 or equivalent this connector has the capability of meeting the environmental requirements of MIL-DTL-38999, class T.

FIGURE 1. Connectors, plug, .150 (3.81 mm) contact spacing, pin terminal - Continued.

MIL-DTL-55302/73D
w/AMENDMENT 2



Inches	mm	Inches	mm	Inches	mm	Inches	mm
.075	1.91	.525	13.34	1.050	26.67	1.575	40.01
.106	2.69	.600	15.24	1.125	28.58	1.650	41.91
.150	3.81	.675	17.15	1.200	30.48	1.725	43.82
.225	5.72	.750	19.05	1.275	32.39	1.800	45.72
.300	7.62	.825	20.96	1.350	34.29	1.875	47.63
.375	9.53	.900	22.86	1.425	36.20		
.450	11.43	.975	24.77	1.500	38.10		

NOTES:

1. Contacts 1, 14 and 27 through 40 (bottom of page) are identified on the front and rear of the connector per the insert arrangement.
2. Contacts 1 through 26 and 51 through 76 (top of page) are identified on the front and rear of the connector per the insert arrangement.

FIGURE 2. Insert arrangement for .150 (3.81 mm) connector, (male engaging face).

MIL-DTL-55302/73D
w/AMENDMENT 2

Requirements:

Dimensions and configuration: See figure 1 and table I.

Material: In accordance with MIL-DTL-55302, except:

Body: reinforced epoxy resin or equivalent.

Interfacial seal: Silicon rubber, A-A-59588, class 2B, grade 50.

Bushing: SAE-AMS-5640 stainless steel or SAE-AMS-S-7720, composition 303, condition A.

Plating: The contact plating shall be gold in accordance with MIL-DTL-45204, type II, grade C, class 1 or equivalent as approved by the preparing activities, over 100 microinches of copper in accordance with SAE-AMS-2418.

Contact identification: Contact locations are identified numerically as shown on figure 2.

Mating and unmating: The mating force shall be 35 ±5 pounds for the 40 contact connector and 65 ±5 pounds for the 76 contact connector. The unmating force shall be a minimum of 0.125 times the number of contacts and shall not exceed the measured insertion force.

Contact resistance: With a test current of 5 A dc, the average resistance of all contact pairs measured shall not exceed 0.008 ohm, and no individual contact pair shall have a resistance exceeding 0.016 ohm.

Dielectric withstanding voltage:

Sea level: 1,300 volts rms, 60 Hz, ac.

High altitude: 350 volts rms, 60 Hz, ac.

Current rating: 5.0 amperes.

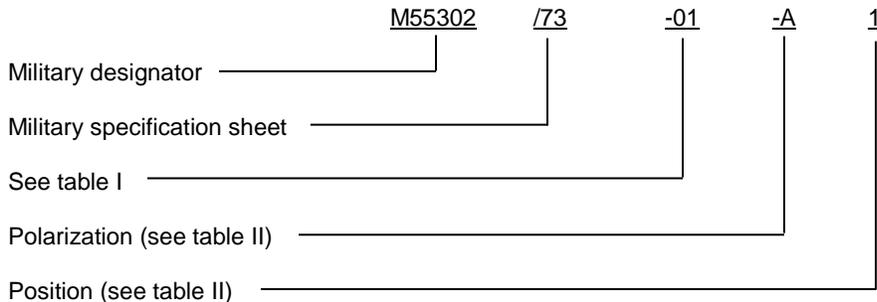
Insert arrangement: See figure 2.

Mating connectors: See MIL-DTL-55302/72.

Qualification: Qualification is not required for this specification sheet.

First article testing (FAT): FAT shall be in accordance with MIL-DTL-55302, qualification inspection.

Part or Identifying Number (PIN):



MIL-DTL-55302/73D
w/AMENDMENT 2

TABLE I. Dash numbers and dimensions.

Dash number	Dimensions ^{1/}						Number of contacts
	A	B	C	D + .008 (0.20) - .000	E	F	
01	2.900 (73.66)	.286 (7.26)	2.522 (64.06)	2.134 (54.20)	1.261 (32.03)	2.522 (64.06)	40
02	4.650 (118.11)	.269 (6.83)	4.288 (108.92)	3.924 (99.67)	2.144 (54.46)	4.288 (108.92)	75

^{1/} Metric equivalents are given for information only. Millimeters are in parentheses.

TABLE II. Dash number, polarization and position. ^{1/}

Dash number		Dash number	
01	02	01	02
01-A1	02-A1	01-D1	02-D1
01-A2	02-A2	01-D2	02-D2
01-A3	02-A3	01-D3	02-D3
01-A4	02-A4	01-D4	02-D4
01-A5	02-A5	01-D5	02-D5
01-A6	02-A6	01-D6	02-D6
01-B1	02-B1	01-E1	02-E1
01-B2	02-B2	01-E2	02-E2
01-B3	02-B3	01-E3	02-E3
01-B4	02-B4	01-E4	02-E4
01-B5	02-B5	01-E5	02-E5
01-B6	02-B6	01-E6	02-E6
01-C1	02-C1	01-F1	02-F1
01-C2	02-C2	01-F2	02-F2
01-C3	02-C3	01-F3	02-F3
01-C4	02-C4	01-F4	02-F4
01-C5	02-C5	01-F5	02-F5
01-C6	02-C6	01-F6	02-F6
		01-1S Nonpolarized	02-1S Nonpolarized

^{1/} Refer to figure 3 for polarization indexing.

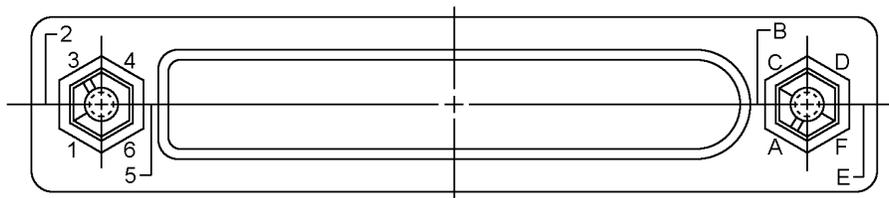


FIGURE 3. Polarization indexing.

MIL-DTL-55302/73D
w/AMENDMENT 2

Amendment notations. The margins of this specification are marked with vertical lines to indicate where modifications from this amendment were made. 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 the marginal notations.

Referenced documents. In addition to MIL-DTL-55302, this document references the following:

MIL-DTL-38999
MIL-DTL-55302/72
A-A-59588
MIL-DTL-45204
SAE-AMS-2418
SAE-AMS-5640
SAE-AMS-S-7720

CONCLUDING MATERIAL

Custodians:
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-2016-166)

Review activity:
Air Force - 19

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 <https://assist.dla.mil>.