

INCH-POUND

MIL-DTL-55302/74D  
w/AMENDMENT 2  
22 August 2016  
SUPERSEDING  
MIL-DTL-55302/74D  
w/AMENDMENT 1  
26 July 2010

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES,  
POLARIZATION KEYS, PIN, RIGHT ANGLE, PLUG, ELECTRICAL, POLARIZED  
FOR PRINTED WIRING BOARDS (.100 SPACING)

Inactive for new design after 1 October 1986.

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-55302.

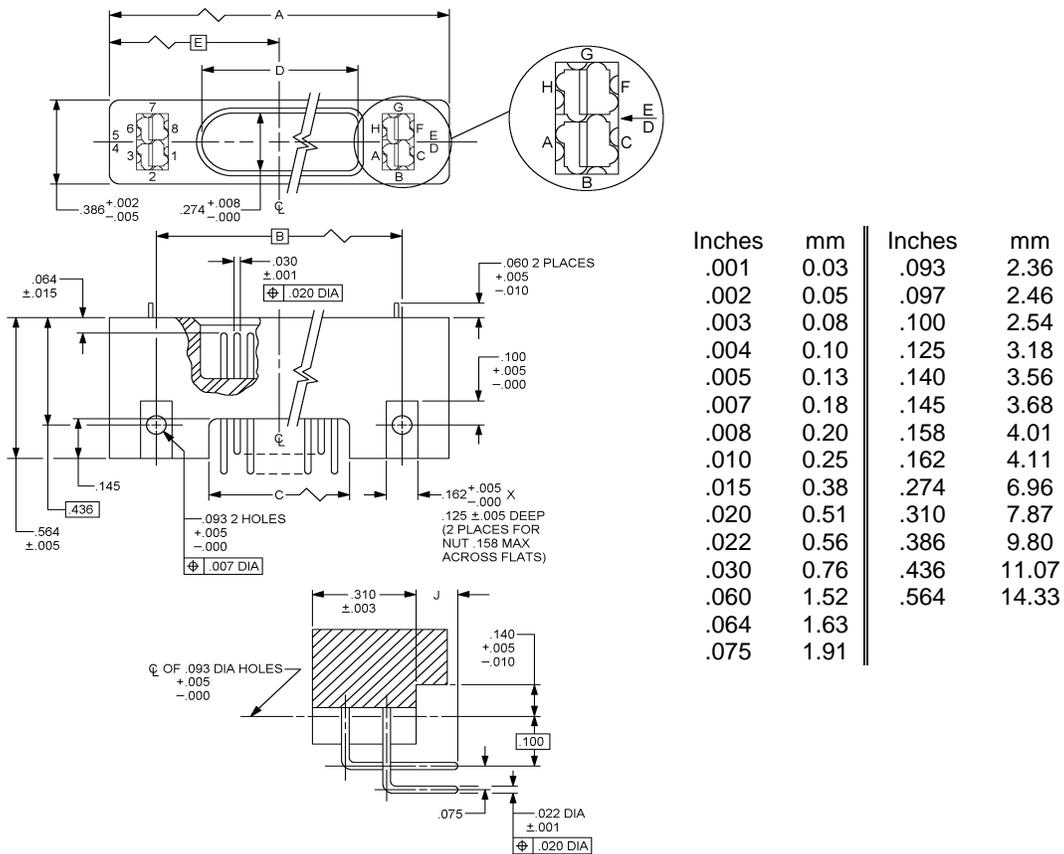


FIGURE 1. Connectors, plug, .100 (2.54 mm) contact spacing, pin terminal.

AMSC N/A

FSC 5935

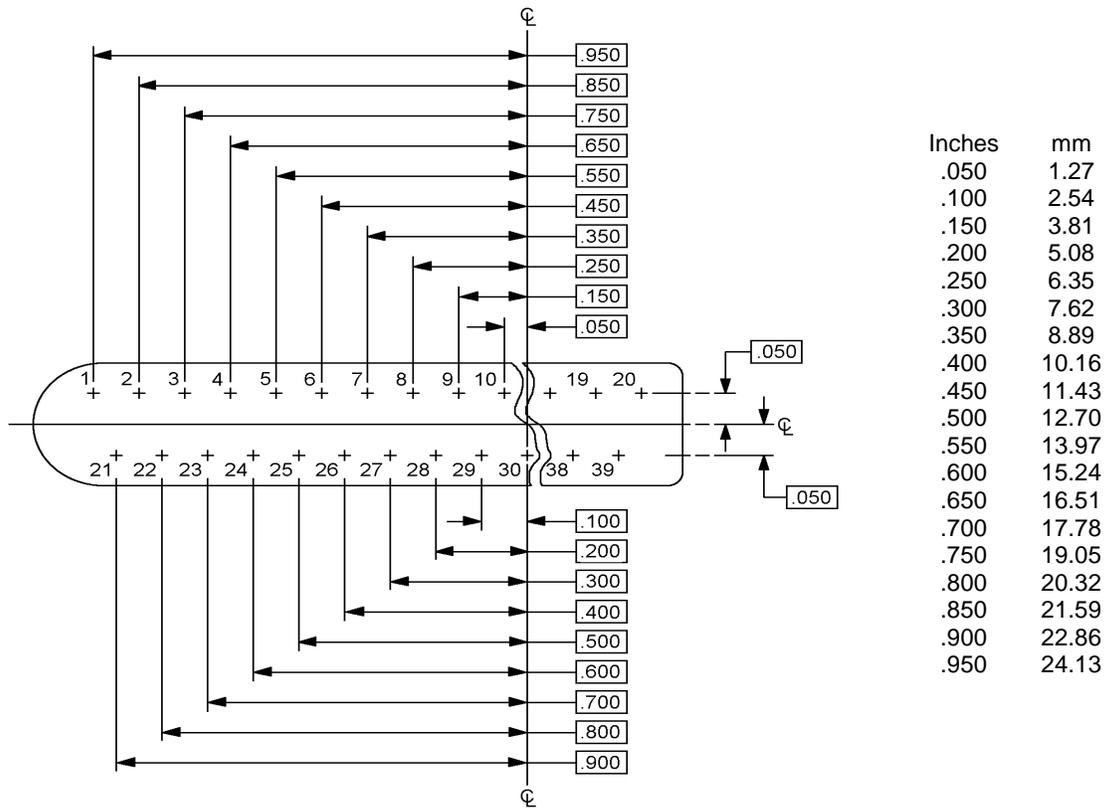


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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Nominal spacing between any two adjacent pin contacts shall be .100 (2.29 ± .08 mm).
4. Unless otherwise specified, tolerances are ±.010 (0.25 mm).
5. For dimensions A through D see table I.
6. Gold plating shall not be cracked or scratched.
7. Mating connectors provide a total of 256 different polarization positions. Polarization components conforming to M55302/78-02 are supplied with the connector unstalled.

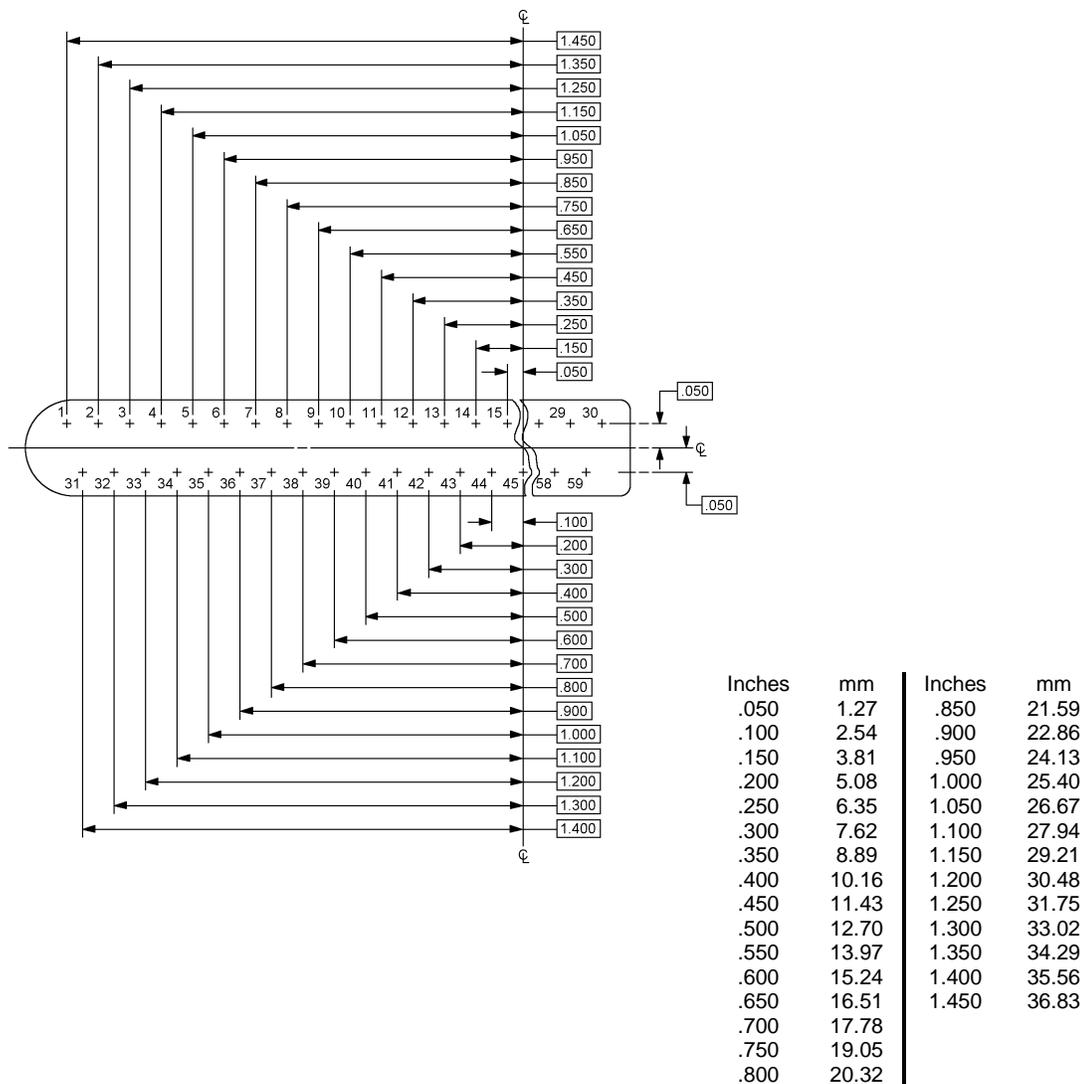
FIGURE 1. Connectors, plug, .100 (2.54 mm) contact spacing, pin terminal - Continued.



NOTE: Contacts 1, 20, 21 and 39 are identified on the front and rear of the connector per the insert arrangement.

FIGURE 2. Insert arrangement for .100 (2.54 mm) contact spacing connectors (male engaging face).

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NOTE: Contacts 1, 30, 31, and 59 are identified on the front and rear of the connector per the insert arrangements.

FIGURE 2. Insert arrangement for .100 (2.54 mm) contact spacing connectors (male engaging face) - Continued.

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Requirements:

Dimensions and configuration: See figure 1 and table I.

Material: In accordance with MIL-DTL-55302.

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-AMS2418.

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

Mating and unmating: The maximum mating force, in pounds, shall be 0.5 times the number of contacts, and the withdrawal force, in pounds, shall be a minimum of 0.08 times the number of contacts and shall not exceed the measured insertion force.

Contact resistance: With a test current of 3 A dc, the average resistance of all contact pairs measured shall not exceed 0.010 ohm, and no individual contact pair shall have a resistance exceeding 0.020 ohm.

Dielectric withstanding voltage:

Sea level: 1,300 volts rms, 60 Hz, ac.  
High altitude: 325 volts rms, 60 Hz, ac.

Current rating: 3.0 amperes.

Insert arrangement: See figure 2.

High potential test voltage: 1,300 V rms, at sea level.

Mating connectors: See MIL-DTL-55302/75.

Qualification: Qualification is not required for this specification sheet.

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

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Part or Identifying Number (PIN): M55302/74-(dash number from table I).

TABLE I. Dash numbers and dimensions.

Dash number	Dimensions <sup>1/</sup>						Number of contacts
	A +.005 (0.13)	B	C min	+ .008 (0.20) D -.000	E	J +.035 (0.89) -.020 (0.51)	
01	2.700 (68.58)	2.400 (60.96)	2.040 (51.82)	2.093 (53.16)	1.200 (30.48)	.097 (2.46)	39
02	3.700 (93.98)	3.400 (86.36)	3.040 (77.22)	3.093 (78.56)	1.700 (43.18)	.097 (2.46)	59
03	2.700 (68.58)	2.400 (60.96)	2.040 (51.82)	2.093 (53.16)	1.200 (30.48)	.159 (4.04)	39
04	3.700 (93.98)	3.400 (86.36)	3.040 (77.22)	3.093 (78.56)	1.700 (43.18)	.159 (4.04)	59

<sup>1/</sup> Metric equivalents are given for information only. Millimeters are in parentheses.

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-55302/75  
MIL-DTL-45204  
SAE-AMS2418

CONCLUDING MATERIAL

Custodians:  
Air Force - 85  
DLA - CC

Preparing activity:  
DLA - CC

(Project 5935-2016-167)

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>.